

Monitor Stored Grain as Air Temperatures Rise!

HIANHA

As spring approaches and air temperatures begin to rise, corn growers with onfarm grain storage should inspect their crop at least once each week.

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Agri Sales Area Manager Jerry Forsyth says the variability in crop condition and moisture levels during last fall's harvest could become evident with warmer temperatures. Hot spots and molds may develop in the bin and, if left unchecked, could reduce the commercial value and feed value of the grain.

"Farmers need to be checking their bins every week and they've got to walk it and babysit it," advised Forsyth. "What we could be running into as temperatures start to moderate, is guys with problems in their corn, but they aren't going to be able to move it very efficiently because there will be load limits on."

Forsyth suggests that farmers pull a load out of each bin on a weekly basis to keep crust from forming and to keep things open. Agri Sales has pulled and dried some corn a second time because it was going out of condition.

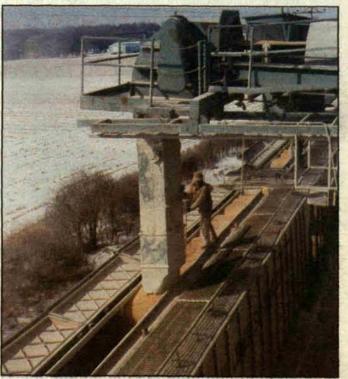
"We've had stuff that went in the bin at 15 percent and is coming out at 17 percent," said Forsyth. "The biggest reason for it is because you had corn that ranged in moisture from 25 percent to 35 percent in the same load."

Growers should begin an inspection by examining the surface of the grain for changes and indications of potential problems. Crusting and wet, frozen grain indicate a problem. Growers should also check the roof of the grain bin for condensation and should smell the grain for musty, moldy odors.

If aeration is needed, growers should run the fans as long as the outdoor air is not more than 10 degrees warmer than the grain. Growers should also aerate on dry days to avoid pushing moisture into the grain. However, if heating is occurring, growers should run fans, regardless of weather, until heating stops. If heating continues, options include drying the grain down further and cleaning out fines, molds and broken kernels.

For more grain storage and monitoring tips from MSU's Roger Brook, turn to page 4.

At right, Agri Sale's workers load a 65 rail-car unit of corn, with an estimated 47lb. test weight. When going full speed, the facility is capable of loading 65 cars in just under 3-1/2 hours. Each car, with a capacity of 3,500 bushels, is probed by an inspector as it's being loaded.



Economic Package Long on Taxes, Short on Spending Cuts

W hile crediting President Clinton for raising the issue of federal deficit reduction, the American Farm Bureau Federation says the president's proposal relies too heavily on tax increases and provides no guarantees that meaningful cuts will be made in government expenditures.

AFBF President Dean Kleckner said his organization will work with Clinton toward his stated goal of developing a leaner, more efficient federal government. Clinton's outlined plan, however, appears to signal more of the "same old thing: tax and spend."

"A heavy reliance on tax increases rather than spending cuts to reduce the deficit is a false premise," Kleckner said. "As the 1990 budget summit agreement demonstrated, it is impossible to transform increased tax revenues into actual deficit reduction. Without the means to enforce spending discipline, taxpayers who will be emptying their wallets will be making an empty gesture." Kleckner said AFBF is concerned that many of the president's proposed spending cuts are not sufficient to solve the problem. Meanwhile, the plan of additional taxes proposed by Clinton will take a disproportionate bite out of U.S. net farm income.

"The energy tax proposed by the president is particularly unfair," Kleckner said. "It will impose a substantial burden on agriculture, both in direct and indirect costs. The farm recovery of the late 1980s was greatly helped by stable or declining costs for fuel, fertilizers and pesticides. The energy tax proposed by the president could mean anywhere from \$600 million to \$1 billion in added costs for our nation's farmers and ranchers."

President Clinton has targeted several other areas in agriculture for budget cuts and revenue increases.

Farm Bureau Days at the Hampton Towne Centre a Hit! One Clinton proposal ties government farm payments to off-farm income levels. If approved by Congress, farmers with off-farm incomes of \$100,000 or more would receive no federal agricultural subsidies as of Oct. 1. According to Clinton, that plan would save an estimated \$470 million.

"This represents a foot in the door for agricultural means testing, and we believe the estimated savings of such a plan are grossly inflated," Kleckner said. "In many cases, they will rent their land to other farmers who do qualify for the farm program, so there will be little impact on overall farm expenditures."

Kleckner also questioned the wisdom of cutting \$262 million from agricultural research programs from 1994 through 1997. "In the long run, cuts in farm research programs end up costing a lot more than they save," he said. "Farm research has been cut a lot already and that's our future bread and butter. That's the seed for agriculture's future."

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Kleckner also said Farm Bureau would oppose further assessments on non-program commodities, such as loan charges on crops like soybeans and sugar.

Since 1982, agriculture has been a prominent contributor in every deficitreduction package, according to Kleckner. Agriculture has taken its fair share of cuts, while many other areas of federal spending have gone untouched, and "it's time for

Continued, see page 5 "Long on Taxes...."

A Publication of Michigan Farm Bureau P.O. Box 30960, 7373 W. Saginaw Hwy., Lansing, MI 48909 At right, Arenac County Farm Bureau member Virginia Golimbieski shares some dairy delicious treats with a number of third and fourth grade students from St. John's Lutheran School in Bay City, during Farm Bureau Days at the Hampton Towne Centre, Feb. 26-28.

The entire weekend was filled with events for everyone, including country dancing, bands, tractor races, face painting, farm animal exhibits, and a kid's coloring contest. Arenac, Bay, and Huron county Farm Bureaus sponsored the 3-day event. This marks the third year the event has been held to promote agriculture in general and specific commodities, including dairy, sugar, dry beans, soybeans, pork, potatoes, and pickles.



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In Brief...

USDA Narrowing Its Options on Russia's Credit

USDA has zeroed in on one option to help the U.S. resume exports of grain to debt-plagued Russia, USDA Secretary Mike Espy told the National Corn Growers convention, according to Knight Ridder News. However, Espy declined to be more specific about what kind of option was now favored.

USDA had been exploring four or five ways to circumvent the problems caused by debt to the U.S. that have kept Russia from buying more U.S. grain. Those possibilities included barter, using PL480 programs, direct donations, revamped export credits and a U.S. restructuring of Russia's debt separately from the Paris Club.

Espy indicated that the plan may be revealed after meetings in Washington with a Russian grain-buying delegation. Russia has been suspended since Nov. 30 from the U.S. GSM-102 export credit program because of its delinquent debts to the U.S. Espy indicated he favors a resumption of export credits to Russia, a key market for U.S. grain. If Russia remains suspended from the U.S. export credit program much longer, other countries will continue to capture that important market, he said.

Are You Eligible for an MESC Tax Credit?

Michigan employers with a positive balance account for state unemployment taxes may qualify for a 50 percent MESC state tax credit in 1993, based on the federal IRS penalty tax they paid in January, 1992. The credit could amount to \$28 per employee.

The Michigan Employment Security Commission (MESC) has conducted several mailings alerting employers to the possible refund, according to MFB labor specialist Howard Kelly. "Positive balance employers are those who have paid more in state unemployment taxes than their employees have received in jobless benefits," Kelly explained. "About 75 percent of the nearly 182,000 employers in Michigan who pay unemployment taxes have positive balances.

Employers must complete and return the application to MESC to receive the state tax credit. The amount of the credit due the employer will appear and be credited on the second quarter, 1993 quarterly report due July 25. Employers with questions or to receive an application, call the MESC's Employer Customer Relations office at 1-800-638-3994.

MECP Program Counties Selected

The Michigan Department of Agriculture has announced that 17 soil conservation districts have been selected to receive 1993 Energy Conservation Program Technical Assistance Grants. A total of \$478,400 were available, with each county eligible for up to \$30,000.

Those Soil and Water Conservation Districts (SWCD) selected include: Arenac, Barry, Branch, Cass, East Allegan, Grand Traverse/Antrim, Ionia, Kalamazoo, Leelanau, Mason-Lake, Montcalm, Montmorency, Muskegon, Ottawa, St. Joseph, Tuscola, and the Thornapple Grand (Eaton) districts.

The funds, intended to provide one-on-one technical assistance to farmers and forest product producers to implement energy conserving practices, were obtained from oil overcharge refunds. Approximately 90 percent of the grant money will be used for technician support according to Gordon Wenk of MDA's Environmental Division. Clerical support and supplies can not exceed 10 percent of the grants. No equipment purchases will be allowed, meaning items in excess of \$300 or more can't be purchased.

According to Wenk, efforts will be in the areas of conservation tillage, integrated pest management, fertilizer management, manure management, filter strip installation, tree planting and irrigation system evaluation and modification. In addition, grants were provided to Michigan State University for use in conducting demonstrations and developing energy and resource informational materials.

January Farm Labor Data Released

During the week of Jan. 1-6, 1993, there were 59,000 total farm workers in Michigan, according to the Federal/State Michigan Agricultural Statistics Service. This is the first January since 1981 that this estimate has been available at the state level. The total farm workers estimate was reinstated this past April for Michigan on a quarterly basis.

There were 14,000 hired farm workers in Michigan compared to 15,000 a year ago. The average hired worker wage rate for January was \$6.90 per hour, 64 cents above January 1992. Nationally, there were 2.51 million people working on farms and ranches. Of these, 611,000 were hired workers versus 703,000 last year. The average hired worker wage rate was \$6.40 per hour. This rate was up 3 cents from a year earlier. Workers paid on an hourly basis earned \$5.99 per hour compared with \$5.97 in January 1992.

USDA to Eliminate "Double Discount" on Corn Grades; Loans Affected

Effective Feb. 22, USDA eliminated the "double discount" policy on grading corn that has been hampering farmers' ability to obtain reduced loan rates for the low test-weight corn. Under the new policy, loan rates will be reduced by the higher of the discounts for low test rates and for the grade caused by the low test weight.

The discount based on moisture content remains unchanged. Previously, USDA had counted low test weight against a loan application twice, once for the grade partly based on test weight and again for the test weight alone. USDA said the new policy was in an effort "to make the Department of Agriculture farmer-friendly," and would help northern Corn Belt farmers "make ends meet." USDA's decision was prompted by a late harvest last fall and unseasonably wet weather during combining that had seriously cut into test weights for such corn in the northern Midwest.

Supreme Court Faults Kraft Cheese Commercials

The U.S. Supreme Court has left intact a government finding that Kraft, Inc., television commercials misrepresented the amount of calcium in Kraft Singles cheese slices, according to the Associated Press. The justices, without comment, rejected the food company's challenge to a Federal Trade Commission order requiring it to stop using misleading ads for its cheese products. Kraft, a division of Philip Morris Companies, Inc., ran the television ads from February 1985 to June 1987.

The commission decided in January 1991 that a Kraft advertising campaign falsely implied that Kraft singles processed American cheese contained more calcium than imitation cheese sold by other companies. Processed cheese contains at least 51 percent natural cheese, while imitation cheese usually contains little or none. The FTC decided a Kraft ad falsely implied that Kraft's Singles had as much calcium as five ounces of milk and that imitation cheese had less. About 30 percent of the milk's calcium is lost in processing, while most imitation cheese is calcium-fortified and has about as much calcium as Kraft Singles.

Stray Voltage Hearings Scheduled Across Michigan

The Michigan Public Service Commission's (MPSC) Stray Voltage Task Force will hold a series of public meetings statewide in March to solicit public comments on the issue of stray voltage. The meetings will provide an informal setting for the public to relay any concerns or comments to the Task Force on this issue. Comments may be made verbally or in writing. The meetings will be held at the following locations:

Tues., March 16, 7 - 9 p.m.	Wed., March 17, 7 - 9 p.m.	Thur., March 18, 7 - 9 p.m
City Hall – Council	City Hall - Commission	Michigan Public Service
Chambers	Chambers, 2nd Floor,	Commission,
301 Washington St.,	100 E. Church,	6545 Mercantile Way
Bay City	Adrian	Hearing Room A, Lansing

Mon., March 22, 7 - 9 p.m. Tues., March 23, 7 - 9 p.m. Wed., March 24, 7 - 9 p.m. DNR Regional Office, 1732 W. M-32, Troy Community Center City Hall - Commission Room F Chambers, 9th Floor, 300 Monroe, N.W., 520 W. Big Beaver Rd., Gaylord Troy **Grand Rapids**

The Stray Voltage Task Force was established by the MPSC in January 1993. The Task Force is responsible for reviewing the issue of stray voltage and providing the commission with a report and recommendation of available options for addressing it, if needed. The Task Force report will be released in May 1993. For more information, contact Mary Kunkle at the MPSC at (517) 334-6983, or Dan Knickerson at (517) 334-6374.

Renowned Forester Bruce Vincent Will be Speaking in Grayling March 27

Forestry leader and speaker Bruce Vincent of Libby, Montana, will be speaking to members of Michigan's forestry industry, March 27, at the Grayling Holiday Inn. Vincent is a fourth generation logger, and is business manager for Vincent Logging. Vincent, who holds a B.S. in Civil Engineering, and a Master's in Business Administration, knows what the direct impact of over-zealous environmentalists can do to the lumber industry. His Montana-based logging business has been seriously impacted by withdrawals of the timber from the market.

In 1988, Vincent helped organize "Communities for a Great Northwest" - a nonprofit group dedicated to the intelligent use of natural resources. He also helped to recently form the "Temporate Forest Foundation" - an international foundation intent on providing society with the information necessary to make difficult and intelligent decisions regarding sustainable economics and a sustainable environment.

Sarah Rupprecht Receives Top Award from College of Agriculture and Natural Resources

Sarah Rupprecht, a senior at Michigan State University from Vassar, Michigan, received the Outstanding Leadership Award from the College of Agriculture and Natural Resources (CANR) at the annual Honors Banquet on Feb. 23, 1993. This award carries a \$500 scholarship and recognizes the senior in agriculture and natural resources who has demonstrated outstanding service to department, college, university and community.

Sarah, daughter of Marvin and Mary Rupprecht of Vassar, will graduate in May with a Bachelor of Science degree in Agriculture and Natural Resources Communications. Active in student organizations since high school, Sarah is currently president of the MSU Dairy Science Club; president of the student chapter of the National Agri-Marketing Association/Agricultural Communicators of Tomorrow (NAMA/ACT); District I president of the Michigan Holstein Association; co-chairperson of a marketing team headed for national competition; and a College of Agriculture and Natural Resources Recruitment ambassador.

During the summer of 1992, Sarah took part in a CANR overseas study program in Australia, New Zealand and Hawaii. She has participated in four learning internships, including one she holds now with the Michigan Farm Bureau, working on the Michigan Farm News. This award recognizes Sarah's hard work, dedication and enthusiastic approach to leadership. Congratulations, Sarah, from the MFB Information Division staff!

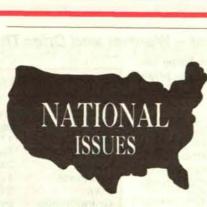
Vincent has spoken to many groups across the U.S. and Canada and has testified on resource issues before Congress. In addition, he has appeared on the McNeil/Lehrer Hour, 60 Minutes, and has been covered heavily by the print media including the Wall Street Journal and the New York Times. In 1991, Vincent was named National Timber Industry Activist of the Year and the Montana Timberman of the Year. The Grayling program, sponsored by the Michigan Forest Resource Alliance, starts at 3 p.m. followed by a dinner at 6 p.m. Tickets and registration are available by calling 1-800-682-4979.

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Balanced Budget Amendment

MFB Position: Supports a constitutional amendment to require a balanced federal budget.

A total of 23 Senators have cosponsored S.J. Res. 41 but do not include either of Michigan's U.S. senators.

MFB Contact: Al Almy, Ext. 2040



U.S. Reps. Charles Stenholm (D-Tex.) and Bob Smith (R-Ore.) have introduced H.J. Res. 103, while U.S. Sen. Paul Simon (D-III.) has introduced S.J. Res. 41. The resolutions are identical and would amend the Constitution to require a balanced federal budget.

The amendment would require that federal outlays not ex-ceed receipts unless 3/5 of all the members serving in the House and Senate vote otherwise on a roll call vote. The president would be required to submit a balanced budget to the Congress. No tax increase could occur unless a majority of all the members serving in the House and Senate approved on a roll call vote. Under present law, a tax increase could occur if approved by a majority of those present and voting.

If the balanced budget resolutions are approved by twothirds of the House (290 members) and Senate (67 members), it would then be submitted to the state legislatures for ratification. Thirty-eight state legislatures must then ratify the constitutional amendment before it would become effective.

A total of 237 U.S. Representatives have cosponsored H.J. Res. 103, including seven of Michigan's 16 U.S. representatives. The Michigan congressmen are Jim Barcia (D-Bay City), Dave Camp (R-Midland), Paul Henry (R-Grand Rapids), Peter Hoekstra (R-Holland), Joe Knollenberg (R-Bloomfield Hills), Nick Smith (R-Addison) and Fred Upton (R-St. Joseph).

Federal Estate Tax Exemption

MFB Position:

Opposes any reduction in the present federal estate tax exemption, imposing a capital gains tax on property at time of death of the owner or imposing use of carryover basis on the sale of inherited property.

MFB contact: Al Almy, Ext. 2040 As the Clinton administration and Congress seek to raise revenues through tax increases this year, there has been discussion about cutting the current \$600,000 federal estate tax exemption to \$200,000. Other proposals being discussed include imposing a capital gains tax on estates at time of death of the owner and instituting the use of carryover basis on the sale of inherited property.

H.C. Res. 6, sponsored by U.S. Rep. Jim Ramstad (R-Minn.), and S.C. Res. 64, sponsored by Sen. Richard Lugar (R-Ind.), have been introduced to address this issue.

H.C. Res. 6 expresses opposition to reducing the present \$600,000 federal estate tax exemption. S.C. Res. 64 is identical in opposing any reduction in the federal estate tax, but also opposes the imposition of a capital gains tax upon death of the owner.

Among the 125 cosponsors of H.C. Res. 6 are Michigan U.S. Reps. Dave Camp (R-Midland), Peter Hoekstra (R-Holland), Joe Knollenberg (R-Bloomfield Hills) and Fred Upton (R-St. Joseph). Neither of Michigan's U.S. senators are among the 25 cosponsors of S.C. Res. 64.

Minor Crop Protection Assistance Act

MFB Position: MFB Supports H.R. 967

H.R. 967, sponsored by Congressman Kika de la Garza (D-Tex.), would provide incentives to the pesticide industry to pursue minor crop registrations; proposes changes that would encourage third-party registrations; emphasizes the use of existing FIFRA authority to expedite minor crop pesticide registrations; and provides direction to EPA and USDA for pesticide programs aimed at minor crops.

Unemployment Compensation Insurance Reform

MFB Position: Farm Bureau supports S.B.-2 as passed by the Senate.

Action Needed:

Contact your Representatives and ask them to support S.B.-2. If amendments are introduced in the House Labor Committee or on the House floor, ask your Representative to support those amendments that more closely resemble Farm Bureau policy.

MFB Contact: Howard Kelly, Ext. 2044

Unemployment Compensation reform has again gained attention in the Legislature because of an increase in benefits, questioned solvency of the fund and the current and future penalties. The benefit increase is an automatic 3.5 percent increase in the maximum weekly unemployment benefit for 1993. Gov. Engler has said reforms to cut costs in the jobless benefit system will be among his priorities this year.

STATE

ISSUES

March 15, 1993

Sen. Joanne Emmons (R-Big Rapids) is sponsoring S.B.-2 to provide reform measures to unemployment compensation. The Senate has passed a watered down version of the bill, which Farm Bureau still supports. As anticipated, the waiting week provision that the Senate Labor Committee had recommended was eliminated. The expected amendments by organized labor were introduced and several of the amendments were adopted. The bill passed on a 19-17 vote. No Democrats voted for the bill. Sen. Dillingham was the only Republican to vote against the bill.

Farm Bureau supported S.B.-2 in the version that would eliminate automatic adjustments; impose a waiting week to collect benefits; would reduce the wage replacement ratio after tax earnings from 70 percent to 65 percent to make it competitive with other states; eliminate the alternate earning qualifier, which allows high wage employees to qualify for benefits more quickly than other employees; and increase the wage level needed to qualify for benefits.

Medical Malpractice

MFB Position: Supports both bills and encouraged their adoption.

Action Needed:

Call your Representatives now and let them know you support these bills as passed by the Senate. The legislators have taken the first bold steps and they now must be supported by grassroots endorsement of their efforts. Urge your Representative to now make her or his vote count.

MFB Contact: Howard Kelly, Ext. 2044.

Local Pesticide Ordinances

MFB Position:

Farm Bureau policy opposes local regulation of pesticides and, therefore, strongly supports H.B. 4344 as introduced.

MFB Contact:

S.B.-270, sponsored by Sen. Dan DeGrow (R-Port Huron), and H.B.-4067, sponsored by Rep. Michael Griffin (D-Jackson), seek to provide Michigan with long-awaited and badly-needed medical malpractice reform.

The bills limit contingency fees in medical liability cases, remove exceptions to the cap on noneconomic damages and limit the \$250,000 cap to each incident, define expert witness, require plaintiffs to notify defendants of the suit and its legal basis 180 days before filing, and allow countersuits by prevailing defendants. This is tort reform that Farm Bureau members, through their policies, have been urging for years. Let the legislators know you support their bipartisan efforts to enact meaningful reform.

Farm Bureau policy excerpts: Adequate health care is becoming unaffordable for many Americans and is virtually nonexistent in many rural areas. We support a cap on malpractice settlements, and elimination of pain and suffering settlements.

House Bill 4344, sponsored by Rep. Tom Alley (D-West Branch), would preempt a local unit of government from enacting or enforcing an ordinance that contradicts or conflicts with the Michigan Pesticide Control Act.

The bill would allow a local unit of government to pass a pesticide ordinance if unreasonable adverse effects on the public health or environment will exist within the local unit government. The ordinance must be approved by the Agriculture Commission.

MFB Contact: Al Almy, Ext. 2040

The loss of crop protection chemicals for so-called "minor crops" is one of the most serious problems facing production agriculture today. Minor crops are virtually every agricultural commodity with the exception of corn, wheat, cotton and soybeans. The term stems from the fact that the cost of research and the development of scientific data for registration and reregistration have become so expensive that many crops no longer provide the necessary market and sales potential to warrant the research and scientific investment.

The problem has become particularly acute in the last few years, and more than half of all registered uses have been lost since 1988. In many cases, there are no effective alter-natives, leaving the farmer with nothing to protect his crop investment. Without prompt attention, farmers' ability to compete with foreign growers in both domestic and interna-tional markets will decline significantly. The effects will be widespread, impacting consumer prices and the quality of commodities, as well as the local food production and processing infrastructures.

Vicki Pontz, Ext. 2046

The bill also allows the Department of Agriculture to contract with a local unit of government to act as its agent for the purpose of enforcing the Michigan Pesticide Control Act.



Gov. John Engler signs a bill, sponsored by Sen. McManus, that will protect the confidentiality of propriatory information received while conducting P.A. 232 commodity programs.

Michigan Farm Bureau (517) 323-7000



March 15, 1993

Weather

30-Day Forecast – Warmer and Drier Than Normal

Sub-zero temperatures across nearly all of the state during late February brought mean temperatures for the month to below normal values (generally in the range of 1-4 degrees below normal).

The cold temperatures did not significantly influence mean temperatures for the December through February (winter) period, averaging from 1 to 3 degrees above the long term normals. It was the seventh consecutive December-February period experiencing above normal temperatures (the last colder than normal December-February period occurred in the winter of 1985-86).

Precipitation during February was generally near to below normal, with the major storm track remaining south of the state. Some northeastern sections recorded near record low monthly precipitation amounts while a few spots in the southwestern Lower Peninsula reported near record amounts of snowfall, mainly of lake-effect origin.

The jet stream pattern responsible for the cold, unsettled weather of late February has largely broken down, resulting in a more zonal west to east flow pattern and milder temperatures.

The National Weather Service 30-day outlook for March and the 90-day outlook for March through May both call for temperatures to average near to above normal and precipitation amounts to remain near to below normal. If this outlook verifies, it may allow fieldwork to begin earlier than normal this spring.

Just as importantly for corn growers, this scenario would lead to higher than expected drydown rates of unharvested corn in the

2/1/93	Ter	Temperature		Precipitation	
o 2/28/93 O	bserved	Dev. From	Actual	Norma	
H. J. M. S. A. S.	Mean	Normal	(inch.)	(inch)	
Alpena	17.4	- 1.5	0.79	1.38	
Bad Axe	18.0	- 4.7	0.86	1.32	
Detroit	24.5	- 0.5	1.27	1.51	
Escanaba	17.9	- 0.2	0.04	1.47	
Flint	21.0	- 2.5	0.65	1.51	
Grand Rapids	22.5	- 0.2	1.13	1.62	
loughton	16.2	+ 1.8	1.14	1.40	
loughton Lake	e 17.0	- 2.1	0.86	1.38	
ackson	22.0	- 2.7	1.30	1.47	
ansing	21.4	- 2.0	1.12	1.47	
Aarquette	15.3	- 2.7	0.76	1.40	
luskegon	23.9	- 0.5	0.83	1.69	
Pellston	15.4	- 0.3	0.60	1.36	
Saginaw	20.4	- 1.9	0.77	1.32	
Sault Ste. Mari	e 13.1	- 1.6	0.21	1.47	
outh Bend	25.7	- 0.5	1.19	1.62	
raverse City	19.4	- 1.3	1.63	1.36	
/estaburg	20.0	-2.4	1.16	1.34	

Normals are based on district averages.

coming weeks. Early season soil moisture for this season's crops will likely remain at sufficient levels due to the heavier than normal precipitation amounts during last fall and early winter.

Extended W	d Major Co leather Out	look
T - Temp.	3/15 3/31	3/155/31
P - Precip.	ТР	T P
Michigan	NB	NB
N. Corn Belt	NB	NB
E. Corn Belt	NB	NB
Wint. Wheat Be	It NN	NN
Spr. Wheat Bell	AB	AB
Pac. NW Wheat	AB	AN
Delta	B/NA	N/BN
Southeast	B/NA	BA
San Joaquin		AN

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

On-Farm Grain Storage Tips

This year's on-farm stored corn - immature, stressed by drying and laden with abnormal amounts of broken and fine material - will require extra care.

"Producers should check corn in storage on a weekly basis to pick up on any problems that are occurring and make corrections," says Roger Brook, Michigan State University Extension agricultural engineer. "Grain temperature, moisture migration and insects will probably be bigger problems in stored grain this year than in past years."



Serving Michigan Farm Families is Our Only Business

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

Station	City	Frequency	Morning Farm	Noon Farm
WABJ	Adrian	1490	5:45 am	12:15 pm
WATZ	Alpena	1450	5:30 am	12:15 pm
WPZA	Ann Arbor	1050	6:15 am	12:05 pm
WLEW	Bad Axe	1340	6:30 am	12:50 pm
WHFB	Benton Harbo	r 1060		12:30 pm
WKYO	Caro	1360	6:15 am	12:45 pm
WTVB	Coldwater	1590	5:45 am	***
WDOW	Dowagiac	1440	6:15 am	12:15 pm
WACY	Fenton	1160	6:15 am	12:15 pm
WGHN	Grand Haven	1370/92.1	5:45 am	12:15 pm
WPLB	Greenville	1380	6:15 am	12:45 pm
WBCH	Hastings	1220	6:15 am	12:30 pm
WCSR	Hillsdale	1340	6:45 am	12:45 pm
WHTC	Holland	1450		12:15 pm
WKZO	Kalamazoo	590	**	12:15 pm
WJIM	Lansing	1250	5:05 am	12:15 pm
WWGZ	Lapeer	1530	•	12:15 pm
WNBY	Newberry	92.5		12:15 pm
WOAP	Owosso	1080	6:15 am	12:30 pm
WHAK	Rogers City	960	7:10 am	12:15 pm
WSJ	St. Johns	1580	6:15 am	12:15 pm
WMLM	St. Louis	1540	6:06 am	12:20 pm
WSGW	Saginaw	790	5:55 am	12:15 pm
WMIC	Sandusky	660	6:15 am	12:45 pm
WKZC	Scottville	95.9	5:45 am	12:30 pm
WCSY	South Haven	940		12:15 pm
WKJC	Tawas City	104.7		12:45 pm
WLKM	Three Rivers		6:15 am	12:15 pm
WTCM	Traverse City		5:55 am	12:40 pm

Broken and fine material, prevalent in this year's stored grain, generally collects in the center of the storage bin and tends to pack tightly, impeding airflow through that section of the grain.

"That section may have a higher temperature than surrounding grain and may provide a good environment for molds to develop and insects to grow and it may set up the process for moisture migration," Brook explained. "Moisture tends to move through the grain and accumulate in the three to four foot range just below the grain surface."

To check for moisture accumulation, Brook suggests walking the surface of the grain. Grain that is dry and in good condition will not provide good support - a person will tend to sink into the grain to the ankle. Grain that is out of condition will tend to be like wet sand under foot, Brook says.

"Feeling the grain by hand or pushing a tire iron or probe into the grain as far as possible is another way to check for temperature and moisture changes in that top three to four feet," Brook said. Another indication of a moisture problem is the presence of frost on the underside of the grain bin hood early in the morning.

"Moisture migration is set up by a temperature difference within the bin of grain or between the grain and the outside temperature," Brook said. "If moisture migration develops, the grain should be aerated to bring its temperature more in line with the outside temperature."

Place a thermometer on the outside edge of the aeration fan exhaust. The temperature change of the bin will be complete when the exhaust temperature nearly equals the outside temperature.

Run the fan during inspection as well and smell the exhaust for any off odors. This helps detect problems that may be developing in the center of the bin. Briefly running the fan during the inspection will not create any temperature-associated problems, Brooks says.

Grain crusting will probably occur if the weekly inspection is neglected. Crusting is caused by mold development due to heat

Continued, see Storage Tips, page 8



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

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

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

Some stations carry additional market reports throughout the market day.

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Jeff Andresen, Ag Meteorologist, MSU



March 15, 1993

Economic Package Long on Taxes, Short on Spending Cuts...Continued



budget cuts to be spread evenly throughout all areas of federal spending, including entitlements," he said.

"Over the years, agriculture has been willing to share in the pain," Kleckner said. "We can say with justification that we've taken our share of spending cuts. Farm program spending has been cut by 50 percent since 1986. If the rest of the government had cut spending anywhere near that, our federal budget already would be running in the black.

Clinton's plan also calls for an increase, in 1996, in the amount of so-called "flex acres" that are ineligible for government payments to 25 percent of a farmer's program base acreage from its current 15 percent. Also eliminated in 1996 would be the "0-92" and "50-92" programs, which encourage conservation by allowing farmers to receive benefits on some unplanted acres.

"Another increase in flex acres will directly impact an individual's net farm income when it hits three years from now," Kleckner said. "I think there will be a lot of opposition to the elimination of 0-92 and 50-92 because those were the types of programs that really have worked quite well as incentives for conservation.

Kleckner said Farm Bureau was intrigued by an administration proposal to save \$730 million, from 1994 through 1997, by consolidating federal farm services (SCS, ASCS, FmHA) into a single agency.

"The consolidation proposal sounds as though it will make sense to many farmers and we'll certainly look at it," he said. "I think we'll look at it with a favorable eye in Farm Bureau, but again that all depends on how the plan is implemented."

Kleckner pointed out one notable omission from Clinton's economic package - a broad-based capital gains tax cut.

"A cut in the capital gains tax is still a top priority for farmers and ranchers," he said. At the very least, such gains should be indexed to prevent inflation from eroding the value of assets such as land, which represents farmers' primary asset."

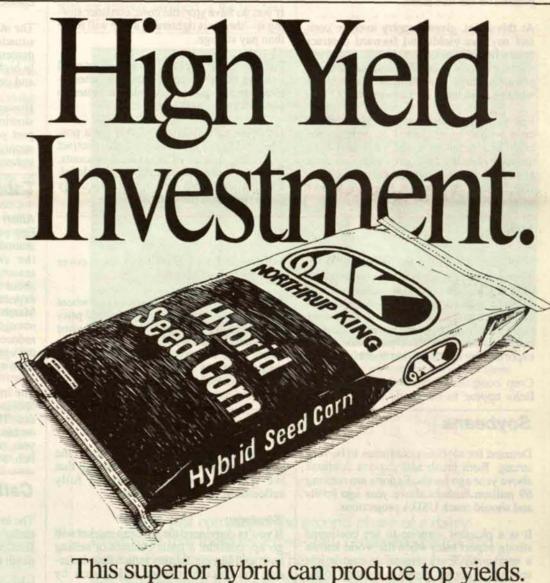
According to Kleckner, Clinton's commitment to conclude trade talks was "very positive" for America's farmers.

Preliminary Ag Spending Cuts

Program	4-year savings (in million \$)
Create single family service agency (merge ASCS, FmHA, SCS)	(in minon \$) \$730
Cuts in ag research	
Reduce REA loan subsidies	
Meat and poultry inspection fees	
Reductions in Foreign Ag Service	
Increased grazing fees (USDA and Interior)	
Eliminate honey program	
\$100,000 off farm income means test	
Increase triple base to 25% (1996)	
Eliminate 0/92 and 50/92 (1996)	
Increase assessments and program service fees	
Limit wool and mohair program	
Freeze market promotion program	
Require crop insurance program to use area yield	

"Trade is going to be the salvation for agriculture in many of our commodities,' Kleckner said. "We simply need to expand trade. We're efficient producers in America. I think his message on the NAFTA and GATT was the high point of his message for agriculture. GATT has fur-

ther to go than NAFTA, but President Clinton had not really sent the message strongly, until his State of the Union address, about his commitment to a successful conclusion of the Uruguay Round."



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Union City	David LaBar	517-741-3204
Vestaburg	Con Agra Berger & Co.	517-268-5300
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March 15, 1993

6

Market Outlook

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

Corn

Demand for corn continues to be strong. Exports are running 22 percent above last year, and should easily meet the USDA forecast, especially if the loan problems are resolved with the former Soviet Union.

The other big user of corn is livestock. This information isn't as clear, however. Livestock reports show large numbers of livestock out there, but slaughter numbers have not backed up the reports.

On the positive side for corn use, the poor weather conditions across feedlot areas would suggest more corn was fed for maintenance. The picture should be clearer after the March 1 Quarterly Stocks Report is released March 31.

As we look towards next year's crop and participation in the 1993 Feed Grain Program, the big question is what will be planted on the flex acres.

At this point, given country average corn and soybean yields and forward contract prices for fall delivery, soybeans come out slightly in front. But it is questionable if soy prices are high enough to see large shifts without a bid up in soybean prices.

For your own decision, calculate which crop would be projected to provide the highest returns to fixed cost and lean towards planting flex acres with that crop after adjusting for rotation considerations. The USDA Prospective Planting Report will be released March 31.

Wheat

With only 11 weeks left in the 1992-93 wheat marketing year, it may be tough to meet the USDA export projection without a quick settlement of the former Soviet Union delinquent loans so that shipments can resume. Exports are running equal to last year, but the USDA projection is for exports to be up 75 million bushels.

Crop conditions across the U.S. Wheat Belts appear to be good. There is good

Soybeans

Demand for soybeans continues to be very strong. Both crush and exports continue above year ago levels. Exports are running 69 million bushels above year ago levels and should reach USDA projections.

It is a pleasant surprise to see continued strong export sales when the world knows a very good South American crop is just around the corner. Again, a solution to the former Soviet Union loan situation is important to continued strong exports.

Seasonal Commodity Price Trends

Wheat	+1
Corn	BT
Soybeans	
Hogs	
Cattle	
Index: [†] = Higher Prices; [↓] TP= Topping; BT= Bottor	= Lower Prices; ning; ? = Unsure

Strategy:

The problem with pricing most 1992 Michigan corn remains the same. The market, through the basis, is telling us to store corn on-farm for June-July delivery – we have very little corn in that condition.

If you do have storable corn, consider storing it -- the basis tightening alone will more than pay storage.

For those who could not store and/or need to move before warm weather, the alternatives are not great. It would be better to concentrate on next year's crop.

However, to stay in the market for a possible spring rally, consider a basis contract or buying futures of equivalent amounts. Buying a call option could be considered. But that's a higher cost option, especially given the low downside risks.

moisture and, for the most part, snow cover as of the first of March.

Strategy: Watch for rallies in the wheat market to do some new crop forward pricing. Consider locking in some of your projected production if July futures hit the \$3.30 area. A good idea is to set some realistic pricing goals and work with an elevator to lock in prices on segments of your crop as prices hit them.

that all producers should be out of the soybean market. Rather, I am arguing that we will see any price increases fully reflected in the futures market.

Strategy:

If you're convinced the soybean market will go up, consider a basis contract or selling cash and buying futures rather than incurring the costs of storage and interest by keeping cash beans. For some downside price protection, consider getting out of cash and buying a call option.

Dairy Market Outlook

Larry G. Hamm

Dairy markets have broken their winter dormancy and are pointing toward the end of declining milk prices.

The Minnesota-Wisconsin (M-W) price has been declining for the past seven months. It is directly linked to the prices dairy manufacturers -- principally cheese manufacturers -- can get for the products they make from farmers' milk.

Dairy product markets have been tightened by the demand for milk to make non-fat dry milk powder and whole milk powder for export sales under commitments to the Dairy Export Incentive Program (DEIP). Therefore, dry milk product prices have been strong over the last two months.

With strong dry milk product prices, farm milk supplies are bid away from cheese plants and diverted to butter-powder plants. If cheese demand is strong, cheese inventories are drawn down to the point where cheese prices start to come under pressure.

The milk supply situation countervails this situation. Milk production for 1992 was 2 percent higher than 1991. This led to slightly higher cheese inventories through 1992 and into January 1993.

However, January 1993 milk production is slowing the increase trend seen over the past year. If it continues, a slowing milk supply will cause problems for the cheese industry.

Table Egg Market

Allan Rahn and Henry Larzelere

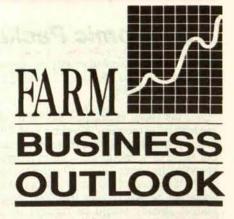
Egg prices in late February were trading around 68 cents per dozen, nine cents above the corresponding 1992 period. As seasonally anticipated, prices softened about six cents during the month, but are expected to recover by several cents in March in response to the Easter demand strength. Lower corn prices this year have reduced layer feed costs and, accordingly, cut egg-production costs around two cents from a year ago.

The improved net return situation is being reflected in the recent laying flock statistics. The size of the table egg laying flock on Jan. 1 was unchanged from the previous year, but the 237 million birds estimate for Feb. 1 is 1 percent greater than a year ago.

Cattle

The lower-than-expected cattle slaughter is easier to explain. Weather across the large feedlot areas has been bad, bringing high death losses and poor weight gains.

But the most recent Monthly 7-State Cattle-



Strong powder demand, slowing milk production and moderate cheese inventories have apparently caused an explosion in trading activity on the National Cheese Exchange in Green Bay, Wisc. On the last two trading days of February, 41 carlot units of block and barrel cheese were traded. Bids for another 16 carlots of barrel cheese went unfilled. Usually this market trades no more than a few loads a week.

Most of the trading took place at the current prices of \$1.16 a pound for barrels and \$1.12 a pound for blocks. But in the last trading session, barrel cheese prices rose \$.005 a pound to \$1.125 a pound. This increase roughly translates into a five-cent per cwt. increase in farm milk prices.

This cheese trading activity and the continued strength of the powder markets show the downward momentum of the M-W should end. After another modest decline for February, the M-W should level out in March and start rising in the months ahead.

Although this season's M-W will be below last year's low point of \$10.98, it will be substantially higher than the price support level or the lows predicted by most market analysts last fall.

Advanced chick-hatch data implies the number of pullets available for flock replacement in January was 15 percent less than a year ago, but higher induced molting activities kept more layers in the flock.

to anticidantal ages international operation T

Light hen slaughter through the week ending Feb. 13, 1993, was 18 percent below the similar 1992 period. Egg-type chick hatch during January was up 3 percent and the number of eggs in incubators on Feb. 1 was 10 percent greater than a year ago.

Egg prices are expected to strengthen into the low 70-cent range during March. Prices in the second quarter are likely to fall into the low 60-cent range and declines may be more severe if actions to downsize the laying flock are not taken.

Strategy:

Keep VERY current. Prices will start falling off through March, given no more cruel weather. Unlike hogs, the cattle futures markets are not offering attractive forward pricing opportunities.

The basis continues to be strong and the spreads between futures contracts small. This is the market's way of telling you that it will not pay storage.

In my opinion, no producers should be storing soybeans at this time. That is not to say

Hogs

Where are all the hogs? The December Hogs and Pigs Report indicated slaughter would be up 3-4 percent the past several months, but through the end of February, there were no year-to-year increases, nor have there been heavier weights to indicate we're not current.

It's unlikely there's a larger-than-expected increase in gilt retention. At this point, it appears the hogs were just not there. Hopefully, the Quarterly USDA March 1 Hogs and Pigs Report -- to be released on March 26 -- will shed some light on this issue.

.

There are many elevators around the state that will either do this or even write a call option at a higher price to help pay for buying the call option. Check them out, but make sure you understand all the alternatives.

In the meantime, hog prices have been much stronger than expected, as demand also continues to be strong. While I expect hog slaughter to increase in March, I expect prices to remain at about the same levels we have been seeing.

Strategy:

Keep current to take advantage of the price levels. Also, if the futures prices have not dropped off much the first few weeks of March, consider locking in some prices on some of your future production. on-Feed, released Feb. 19, showed there are cattle out there and they will be coming. Total-on-feed is 11 percent above last year and placed-in-January was up 3 percent. Marketings were down 10 percent, confirming that cattle were just not ready.

At this time, the futures markets and my fundamental analysis are seeing the same picture: a fall off in prices through August into the low \$70's and then a slight recovery.

Weak Demand Pressures Navy Bean Prices

Navy bean prices have fallen \$4/cwt. since the September rally took Mid-Michigan grower bids to \$22/cwt. At harvest, a large volume of beans moved to the elevator level providing some price stability. The feeling was that prices could edge higher as demand from end-users increased into early '93 as canner demand for dry beans typically picks up in the January through March period. However, this demand hasn't materialized.

Production in '92 was down dramatically from the previous two years; however, we are still feeling the effects of the '90 and '91 record crops with a record 2 million cwt. carryover from the '91 crop. The current supply does allow end users the benefit of purchasing only what they need at any given time, with little risk of encountering a shortage or increased prices.

Export shipments are well below expectations, as reflected by inspections for export for the September through February period. The Michigan Bean Shippers Association reports only 419,872 cwt. of navy beans inspected for export compared to 1,021,646 cwt. for the same period a year ago.

Planting intentions will provide the next speculative opportunity for prices. Traders are concerned that despite low prices, edible beans may still look more attractive to growers faced with generally depressed prices for competing crops.



7

Utilize Estate Planning Tools

Ralph E. Hepp Agricultural Economist Department of Agricultural Economics Michigan State University

Estate transfer techniques used by the owners of farm businesses are greatly influenced by the potential tax impact on the estate. Various tools are suggested by professional estate planners to minimize the taxes and transfer a larger amount of the business property to the family heirs.

Since 1987, there is no federal estate tax on death transfers less than \$600,000. Medium-sized estates, between \$600,000 and \$1.2 million, can eliminate the tax by using commonly accepted estate planning techniques, while larger estates, over \$1.2 million, can greatly reduce the federal estate tax burden by implementing tax reduction strategies.

Provisions of the Death Taxes

The federal estate and gift tax law allows an unlimited marital deduction for property transfers to the spouse. Regardless of the method used to transfer the property, it goes tax free.

The unlimited gift tax marital deduction allows a married couple to place the property into both names, or any one name regardless of who currently owns the property. The flexibility to shift property ownership between spouses provides an opportunity for realignment of property ownership that best meets the estate and business transfer objectives of the family.

The Michigan inheritance tax law also allows an unlimited marital deduction for property transfers to the surviving spouse. The law also allows an exemption for the value of family farms and small businesses that are transferred to family members. Although there are qualifying conditions for using the business exemptions, most family operations will meet the requirements.

The federal gift tax law has an annual exclusion of the first \$10,000 in gifts made to any one recipient. A married couple can combine their annual exclusion and transfer \$20,000 each year to any number of individuals. At the present time, there is no limit on the number of annual exclusions that can be used.

The annual gift tax exemption remains an attractive alternative for transferring large amounts of property within the family and escaping the gift and estate taxes. Gifts of business property, however, must be carefully planned so the gift is a present interest by the recipient and the exclusion is applicable.

The value of business real estate can be appraised for federal estate tax purposes at use value to the business rather than market value and reduce the value of the decedent's gross estate up to \$750,000.

There are a number of qualifying requirements before special use valuation can be used by the estate, so it may be advisable to retain qualified property and dispose of non-qualifying property during lifetime.

A 14-year period is allowed for paying an estate tax, with reduced interest rates, for farm and closely-held business property. Business property must be at least 35 percent of the value of the decedent's adjusted gross estate.

Property transferred to an heir and eventually transferred to that person's heirs is generally exposed twice to federal estate taxes. To avoid the second round of taxation on business property, generation-skipping techniques can be used to protect the income interest of the first heir, and avoidance of the transfer tax.

Although there is a generation-skipping tax under the federal estate tax law, the exemptions are large.

Business Transfer

Since the tax impact upon the family businesses has been lessened over the years, small business owners may be inclined to delay the transfer of business interests to the younger generation. We all recognize that a delay strategy is a mistake.

Family businesses can only remain an important part of U.S. business if ways are developed for the gradual transfer of management and assets to younger family members. The current business owners are in a unique situation to influence the future direction and financial viability of the family business and can develop the framework for its continued success and survival.

The younger generation can assume the responsibility of the family business and gain management responsibility and capital in a growing business.

Unless positive teaching between the generations occurs, the family business spiral will probably break, possibly forever.

A family business is more than sales, good business techniques, and good products; it involves people who make things happen for the benefit of the family. Therefore, for the business to survive, efforts must be spent developing the people who will own and operate the business in the future.

Personalities and Management Skill Development

Management experience and knowledge is not born, it's developed. Not only must the

Capital Transfer

The most effective estate planning by families is done by the accumulation of business equity by all family members who work for the business. Growth capital sharing by the family members can be accomplished by restructuring the capital in a corporation, partnership, or sole proprietorship so all individuals participate in the ownership of the business.

The sharing of growth capital provides an opportunity over time for the younger generation to become part owners in the family business, while at the same time maintaining the security for the older generation without threatening their income source and security.

This method, however, only works in family businesses undergoing continuing growth and development. A stagnate business requires the use of other tools. It also may indicate that the business lacks earning ability for another family member.

The existing equity in the family business can be transferred from the older to the younger generation. However, founders who are actively involved in the business



March 15, 1993

hesitate to transfer much equity (the estate) unless large amounts of property have been accumulated.

Typical tools of lifetime gifts, leveraged sales or eventual death transfers (through will or trusts) can be used for estate transfers. In most cases, the founders in these earlier transition years will not part with their accumulated wealth, nor can they part with all their wealth since it serves as income and security in their older age. The best options for all parties involved is sharing of growth capital.



Neal, Kelly, Pat, Harold and Marty Travis operate North Valley Farms, a 300-cow dairy operation at Shepherd, MI. The four brothers farm with their parents, Pat and Evelyn Travis. The farm has a 20,500-lb. milk RHA and produces 1,000 acres of hay and corn.

HOW A DROUGHT SET SEEDS OF EXPANSION FOR THE TRAVIS FAMILY.

"We've just completed the second phase of a dairy expansion that includes a free-stall, center-feed barn and double-8 milking parlour. The expansion began in 1988 after a severe drought forced us to make some serious decisions. As brothers, we knew we wanted to farm together with our folks but a cash-crop business was too risky for all of us to depend on. "Looking back, 1988 wasn't a pretty year to begin an expansion, but Farm Credit had confidence in us and stood behind our decision. Our loan officer has been a tremendous planning resource and helped us work through countless 'what if' situations on the computer. "A lot of lenders wouldn't have been able to grasp our vision for this family dairy business but Farm Credit not only grasped it, they helped us figure out a better way to make it happen. If it hadn't been for the facilities expansion loan and other help from Farm Credit, there's no question that several of us couldn't be in this operation today."

future managers want to learn, the business must be structured to allow for training opportunities. Management styles in family business usually can be characterized by three types along a continuum based on authority.

Autocratic

At one extreme is the autocratic leader who maintains complete control through centralization of all authority in the boss role. All decisions are made at the top and carried out in a highly structured chain of command with division heads repeating and implementing decisions. Very little opportunity exists for division heads or other employees to make suggestions or participate in the decision making process. Very little opportunity exists for management development of people in the autocratic structure.

Free Rein

The free rein leader style is equally void of opportunity for management development of people and represents the opposite extreme or complete decentralization of authority. The family business operated with this management structure floats in a vacuum. Very few of the difficult decisions are made. No one in the organization has the authority or the responsibility to make decisions except the boss and he avoids that charge.

Participative

Somewhere in the middle is the participative type of management style where many people are involved in decision making in a cooperative arrangement. The top managers have decision making authority and responsibility individually or collectively. Everyone knows who makes what decision in a departmental structure with the coordinator/boss serving as the orchestrator of the decision process and the chairman of the board. The participative structure allows opportunity for management development of individuals.



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8 It Pays To Take Charge of Safety!

The work-related hazards of agriculture make it statistically one of the most dangerous occupations in America. But many farmers are finding that they can minimize the risk to themselves and their workers -- and make a valuable investment in the overall well-being of the farming operations -- by taking firm control of safety and health matters.

"Success results from making accident prevention a management goal," says Farm Bureau Insurance ag safety expert Ron Converse. "Unlike most other occupations, farming doesn't always provide for a trained safety director to help you control risk. You have to work at being your own safety director."

David Armintrout, owner of Armintrout's Nursery in Allegan County, has made safety a top priority for the workers in his large and complex operation. Frequent – even daily – safety meetings, close supervision, regular training, and careful attention to detail are elements of the safety program that has become an important part of his business.

MFN

Nursery owner and operator David Armintrout says the costs of work comp claims can have a big impact on the bottom line.



"Number one, you think about people. You don't want anybody to get hurt," he says. "And number two, workers' comp problems can be terribly expensive. Any

savings you can make there will transfer right to the bottom line."

Here are ways you can take charge of safety on your farm:

- Make it part of your routine to inspect all equipment and facilities for hazards – and correct hazards without delay.
- Follow the safety and health recommendations in operator's manuals and on product labels.
- Consult with safety experts who can help you identify hazards and find ways to minimize them. Farm Bureau Insurance, for example, offers the services of its Field Services Unit.

"We have a staff of trained personnel who will be glad to spend the time it takes to help farmers focus on safety and what it can mean to their operations," says Leo Dahring, manager of Field Services for Farm Bureau Insurance.



From Farm Bureau Insurance

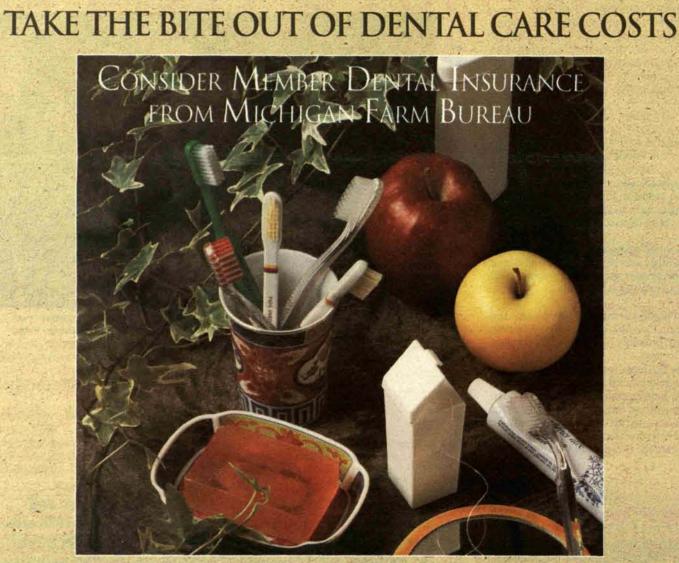
- Know how to prevent farm injuries and illnesses. Take note of safety and health information that you see on TV, hear over the radio, or read. But just knowing isn't enough; you have to be able to put your knowledge into practice.
- ☐ Be prepared for the activities of the day. Have the right tools, equipment, and supplies at hand. Know and respect your limitations as well as your strengths. At Armintrout's Nursery, workers who show signs of strain or fatigue are given a rest break -- and might also be moved for a time to another kind of work if necessary.
- Maintain your equipment properly. Make sure all safety shielding and other safeguards are in place. Make sure all workers are properly trained and equipped for their jobs.
- Use appropriate personal protective equipment to protect your health and reduce injuries. Have first aid supplies available and ready to use.
- ☐ Take advantage of the safety training services offered by such organizations as the Safety, Education, and Training Division of the Michigan Department of Labor.

Remember, the time you spend properly training yourself and your workers will be returned to you -- because you'll experience fewer errors, higher productivity, and reduced accident risk. But to reap the rewards, you've got to make the investment.

"Safety is something you've got to do and live and think and sleep and repeat every day until it becomes second nature to you," David Armintrout says. "We've made some improvements, and we'll keep working on them. I don't see that as ever stopping."

Storage Tips Continued from Page 4

and moisture migration. If a crust forms on the surface, Brooks encourages that the crust first be broken up so that it is flowable. If it's severe crusting, either shovel it out the top of the bin or unload enough grain to take the crust out of the bin.



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		Phone	and a sub- of the sub-
		County	

Severely crusted grain can pose a serious safety risk to workers because it can form a bridge over an air pocket at the top of the bin. The pocket is a potentially lethal trap for anyone who walks on the crust.

A worker who must enter the bin should wear a safety harness attached to a rope held by two adults and be sure the unloading equipment is locked out. Never enter a bin of flowing grain. It can trap an adult in five seconds and cover a body in 22 seconds.

The mold in crusty grain may also be a serious health threat. When handling moldy grain, wear a tight fitting mask designed to filter out mold and pollen spores. The standard painter's mask will not protect a person from mold or grain dust.

Additional information is contained in Extension Bulletin E-1431, "Stored Grain Management," and "Coping with Agricultural Molds and Dusts," AEIS-467. Both publications are available through your local CES office.



March 15, 1993

The Thumb's M-24 Corridor Project - These Farmers Ask "Have all the Alternatives Been Considered?"

A March 24 Department of Natural Resources (DNR) hearing in Caro, Michigan, could mean a lot of different things to a number of people, depending on the outcome. For the Michigan Department of Transportation (MDOT), it could mean the completion of a 28 year project to extend M-24 from Caro to Unionville. For seedcorn farmers Don and Bob Mantey, it could mean a new road that splits a section of farmland, wetlands, woodlands and windbreaks.

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lands and windbreaks. The DNR hearing is possibly the last step in a road project that was originally conceived in 1965, but never became reality because of funding shortages, although a preferred route was chosen in 1977. Despite environmental regulatory changes, MDOT believes their chosen route should be "grandfathered" to allow the road project to be completed. The Manteys, however, hope that common sense and analysis based on all the facts will prevail and that other alternatives will be considered. "We're not trying to stop a Class-A road from coming into the area," explained Don

"We're not trying to stop a Class-A road from coming into the area," explained Don Mantey. "We just want to make sure that all of the alternatives are looked at. When you have a road every mile, and then build another road half way in between them - I guess in my eyes, it just doesn't make sense."

At the center of the controversy is a 4.5 mile east/west stretch of proposed road that cuts across farmland lined with windbreaks, woodlands, wetlands and a subsurface irrigation project the Manteys utilize in seedcorn production.

Brothers Don, 41, and Bob, 35, operate 1,400 acres raising primarily seedcorn, soybeans and wheat. They contend that the 10 acres that they stand to lose is secondary to environmental factors that could have a much bigger impact on the adjoining farm acreage. The Manteys say they would be willing to sacrifice the farm acreage required by the other options as opposed to losing the environmental benefits of the proposed route.

The Manteys say they would be willing to sacrifice the farm acreage required by the other options as opposed to losing the environmental benefits of the proposed route. The windbreaks, established by their father, Edgar, and uncle, Carl Mantey, in the 1950s, have allowed them to grow seedcorn on lighter soils. Bob explained that differing maturities require different planting dates to allow simultaneous pollination by both the male and female plant. If either the male or female plant are delayed by a windstorm and a consequent sandblasting, then pollination times can be disrupted, causing blank cobs with no kernels. "If anyone from SCS wants to show

"If anyone from SCS wants to show anybody what windbreaks look like most of the time, they come to our property," said Don. "The people involved in the Saginaw Bay Water Quality Project have visited quite a few times just to show people what can be done with established windbreaks."

In addition, the Manteys have serious concerns regarding the proposed route's impact to the wetlands and disruption to adjacent farmland subsurface irrigation. "When you cut through the middle of a tiling system, there's a lot of intricacies involved that you have to be concerned with," Bob said. "If you went along an existing roadway, the only thing that would be involved would be your outlets or mains which usually can either be moved or new outlets put in."

outlets or mains which usually can either be moved or new outlets put in." Subsurface irrigation had figured to be a larger part of the Mantey operation. The idea of catching excess drainage water and recirculating through field drainage tiles during dry periods had appealed to the Manteys from an economic and environmental standpoint.

Bob, who holds an agricultural engineering degree, and Don, who holds a mechanical engineering degree, conducted flow measurements from a number of their field tiles, and adjoining wetlands, recording flow rates as high as 400 gallons per minute. The same principles should apply to federally funded highway projects as well, when other alternatives are ignored."

The Manteys' calls for a thorough review of alternatives included trying to bring the MDOT and the DNR together earlier in the process. To their knowledge, that didn't occur until November, 1992, when state Rep. Dick Allen, the Manteys and representatives from MDOT and DNR met.

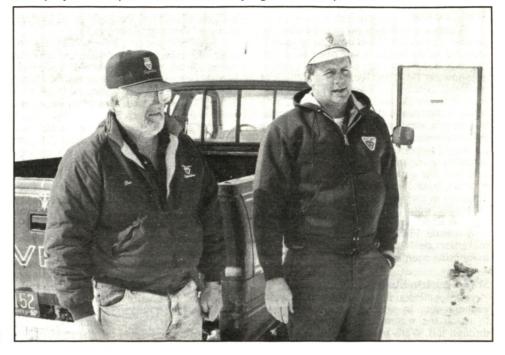
Allen, the Manteys and representatives from MDOT and DNR met. "We've tried to follow the right process it's very frustrating," said Bob. "All we've ever asked right from the beginning was that this project be handled in what we thought was the right manner. I guess maybe what we thought was right isn't necessarily the way our government works." In addition to time and bureaucracy, the Manteys are also working against the mentality that if the money isn't spent now, it will

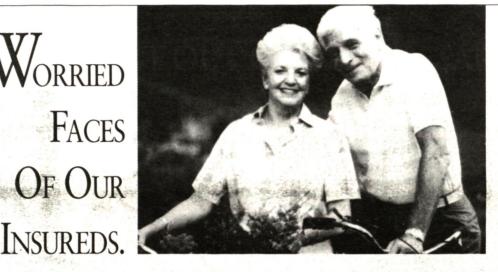
In addition to time and bureaucracy, the Manteys are also working against the mentality that if the money isn't spent now, it will be lost for good. Bob and Don say that line of thought could be more costly in the long run. "There are a number of people that just

"There are a number of people that just want to see this project go to get it done because the money is there. If it's decided that the project should be delayed because of detrimental environmental effects, to find a route that's more feasible, I think it's well worth the wait," Don concluded.

For a MDOT Perspective see page 12

Brothers Don and Bob Mantey contend more feasible options exist for a proposed road project and question the MDOT's judgement and procedures.





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Another sticking point for the Manteys is the MDOT's right of way purchase. Currently nearly 60 percent of the new right of way has been purchased, prior to DNR permit application and approval for the MDOT wetlands mitigation process.

"Although it may be standard procedure for the highway department, it doesn't make sense to me," said Don. "I feel it kind of clouds the issue when the environmental questions come up because you've got all of this money that's already been spent hanging over everybody's head. We asked MDOT, 'Why proceed with right-of-way acquisition when the permit needs to applied for?' Their response was 'This is our procedure and how we do it.'"

Bob also expressed frustration at the apparent double standards of wetland regulations and enforcement. "It's frustrating that the Soil Conservation Service and other agricultural agencies don't have more jurisdiction in this whole process," he said. "If a farmer wanted to clear wetlands and plant corn, they jeopardize farm program benefits. Representing:

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1. Consumer's Guide to Long-Term Care Insurance, HIAA 1989

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Address	When a the Barefield of	
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10 Reducing the Risk of Groundwater Contamination by Improving Water Well Condition

Well Location

Whether a well taps water just below the ground or hundreds of feet deep, its location is a crucial safety factor. A safe place for a well depends on factors such as surface drainage, groundwater flow, and location of sources of potential contamination. A well downhill from a livestock yard, a leaking tank, or a septic system runs a greater risk of contamina-tion then a well on the upbill side of these tion than a well on the uphill side of these pollution sources.

Surface slope does not always indicate the direction a contaminant might flow once it gets into the ground. However, in shallow aquifers, groundwater flow is often in the same direction as surface water flow. If the aquifer supplying water to your farmstead well is deep, its slope may be different than that of the land surface. Finding out about groundwater movement on your farm may require special monitoring equipment.

Well Construction

Poor well design can allow groundwater contamination by allowing rain or snowmelt to reach the water table without filtering through soil. Wells located in pits, or without grout or a cap, can allow surface water to carry

bacteria, pesticides, fertilizer, or oil products into your drinking water supply. Well construction information may be

available from the well driller, the previous owner, or the water well record. Your local Health Department office or the Michigan Department of Natural Resources, Geological Survey Division, can attempt to locate the water well record for you.

This overview of well construction and inspection can help you understand your drinking water contamination risk. Contact a registered well driller or pump installer for more information. A representative from your local Health Department or the Well Construction Unit of the Michigan Department of Public Health (MDPH) can also interpret construction requirements of the state well code.

Casing and Well Cap

During construction, the well driller in-stalls a steel or plastic pipe called a casing to prevent collapse of the borehole. The space (called the annulus) between the casing and the sides of the hole provides a direct channel for surface water (and contaminants) to reach the water table. To seal off that channel, the driller fills the annulus with a sealing material called grout (cement, concrete, or clay ben-

Contacts and References

Who to call about ...

Certified well water testing laboratories:

* A listing is available from the Water Supply Division, Michigan Department of Public Health, P.O. Box 30195, Lansing, Michigan 48906. Telephone: (517) 335-9216.

Interpreting well water test results:

* Local Health Department offices or the Water Supply Division, Michigan Department of Public Health. Telephone: (517) 335-9216.

Drinking water quality standards: * U.S. Environmental Protection Agency's Safe Drinking Water Hotline. Call toll free 1-800-426-4791 from 8:30 a.m. to 5 p.m. Eastern time.

- * Water Supply Division, Michigan Department of Public Health at (517) 335-9216.
 * Local Health Department offices

Approved water treatment devices:

Use only those devices certified by the National Sanitation Foundation (NSF), and independent testing laboratory.

Requirements for installation of treatment devices:

* Before installing treatment devices on water supplies contaminated with nitrates, heavy metals, VOC's, pesticides, microorganisms, and other health-related contaminants in excess of health standards, contact your local Health Department or the Water Supply Division, Michigan Department of Public Health at (517) 335-9126.

Locating possible sources of contamination:

* Well drilling contractors, pump installers, Department of Natural Resources district office water supply specialists, or local Health Department sanitarians.

Well construction or inspection:

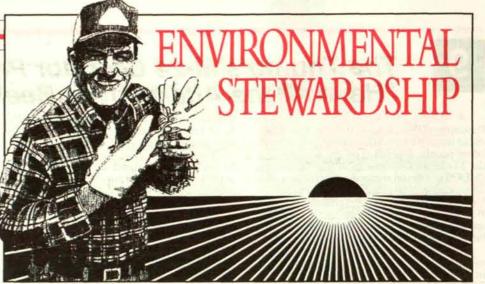
* Your local Health Department sanitarians or registered well drillers or pump installers.

A copy of your water well record (construction report):

Contact the well drilling contractor who drilled the well, your Local Health Department office or the Geological Survey Division, Michigan Department of Natural Resources, 735 East Hazel Street, Lansing, Michigan 48912. Telephone (517) 334-6921. Be prepared to provide the legal description of the well's location.

Well abandonment:

Contact your local Health Department or the Water Supply Division, Michigan Depart-



tonite, depending on the geologic materials encountered). Both grout and casing prevent contaminants from seeping into the well. You can visually inspect the condition of

your well casing for holes or cracks at the surface, or inside the casing with a light. If you surface, or inside the casing with a light. If you can move the casing by pushing it, you may have a problem with your well casing's ability to keep out contaminants. In areas with shal-low (less than 20 feet from surface) fractured bedrock, check on the condition of your well casing by listening for water running down into the well. (Pump should not be running.) If you hear water running, there could be a crack or hole in the casing, the casing depth rack or hole in the casing, the casing depth may be inadequate, or the annulus may not be sealed. Any of these situations is risky.

To prevent contaminants from flowing into the well casing, the driller installs a tightfitting, vermin-proof well cap to prevent easy removal by children, and entry by insects or surface water. The cap should be firmly installed, with a screened vent incorporated into it so that air can enter the well. Check that the well cap is in place and tightly secured. Wiring should be in conduit. If your well has a vent, be sure that it faces the ground, is tightly connected to the well cap or seal, and is properly screened to keep insects out. The well code requires a vermin-proof cap or seal for all wells.

Casing Depth and Height

The casing should extend to a minimum depth of 25 feet. Your local Health Department sanitarian or an MDPH specialist can advise you on these minimum requirements. Meeting well code minimum requirements. Meeting well code minimums does not guarantee a safe water supply; you may want to exceed minimum casing depth. Typically, the well casing extends one to two feet above

two feet above ground level to prevent surface water from running down the casing or on top of the cap and into the well. The well code requires at least 12 inches of casing pipe extend above the final grade of the land.

Well Age

Well Age Well age is an important factor in predict-ing the likelihood of contaminants entering the well. A well constructed more than 70 years ago is likely to be at the center of the farmstead. It may be a shallower well and is probably surrounded by many potential con-tamination sources. Older well pumps are more likely to leak lubricating oils which can get into the well. Older wells are also more likely to have thinner casings that may be corroded through. Even wells with modern casings that are 30 to 40 years old are subject to corrosion and perforation. If you have an older well, you may want to have it inspected by a qualified well driller.

Well Type

Dug wells pose the highest risk of allow-ing drinking water supply contamination because they are shallow and often poorly protected from surface water. A dug well is a large-diameter hole (usually more than two feet wide), which is often constructed by hand, and is shallow. Driven-point (sand point) wells are con-structed by driving assembled lengths of pipe into the ground and pose a moderate to high risk. These wells normally have a small diameter (2 inches or less) and are less than 50 feet deep. They can only be installed in areas of relatively loose soils, such as sand. All other types of wells, including those constructed by a combination of jetting and driving, are drilled wells. Drilled wells for farm use are commonly four to eight inches in diameter, but older wells may be 2-inch.

Better Management of Existing Wells

Existing wells are most likely located according to traditional practices or regulations at the time of construction. While these wells may still be legal, you may want to consider how your well conforms to current standards, which are based on new knowledge about groundwater contamination and well water quality. These standards can be found in the state private well regulations.

You might want to move activities such as pesticide mixing, tank rinsing, or gasoline storage further away from your well, or upgrade wells, get rid of well pits, install caps or extend casings. Property transfer forms include language regarding underground petroleum storage tanks and well water safety.

Changing the location of certain farm practices may prove to be expensive and time-consuming. You can't move a livestock yard or a silo overnight. Change the way you manage such structures to control con-taminants until you can meet minimum separation distance requirements.

Backflow Prevention

Backflow or backsiphoning from pesticide mixing tanks allows chemicals to flow back into the well through the hose. Use an anti-backflow device when filling pesticide sprayer tanks to prevent the chemical mixture from flowing back into the well and contaminating groundwater. Inexpensive antiback flow devices for hoses used to fill farm sprayers may be available from irrigation or spray equipment suppliers. Keep the hose out of the tank when filling the pesticide sprayer if you don't have an anti-backflow device.

Consider purchasing an inexpensive plas-tic nurse tank to fill with water at the well and then use it to fill the sprayer away from the farmstead -- and away from the well.

You should also consider anti-backflow devices on all faucets with hose connections or maintain air gaps between hose connections and the water level. Otherwise, you risk having water in laundry tubs, sinks, washing machines, pressure washers, outside hydrants, and swimming pools flowing back through the and swimming pools flowing back through the plumbing and contaminating your water.

Water Testing

Check water quality in existing wells by testing them annually. Although you cannot have your water tested for every conceivable contaminant, some basic tests can indicate whether or not other problems exist.

At a minimum, test your water annually for coliform bacteria and nitrate. A good initial set of tests for a private well also includes hardness, chloride, sulfate, sodium, fluoride, and iron.

In addition, you may choose to obtain a broad scan of your water quality for a number of contaminants. Both state and private labs offer a screening for metals, inorganic chemi-cals, volatile organic chemicals, herbicides/pesticides, and coliform bacteria. A laboratory certified by the Michigan Department of Public Health is recommended testing for any well providing drinking water. A list of Michigan Department of Public Health Cer-tified Labs is available from the Water Supply Division, MDPH. Lab fees vary. The results may not include contaminants that could be used near your farm -- the most commonly used pesticides in your area, for example. Test for contaminants that are most likely at your farmstead. Test for lead if you have lead pipes or soldered copper joints. Test for volatile organic chemicals (VOCs) if there has been a nearby spill of oil, petroleum products, or solvent. While testing for pesticides can be very expensive, the expense may be justified if: your well has nitrate levels over 10 mg/l (reported as nitrate nitrogen, NO3-N); a pesticide spill has occurred near the well, or backsiphonage has occurred; or if your well is shallow, and has less than 25 feet of casing, or is located in sandy soil and downslope from irrigated croplands where pesticides are used. You may seek further advice on appropriate tests to run from your county Extension office or health department, or your MDPH specialist.

ment of Public Health at (517) 335-9216.

What to read about ...

Groundwater, groundwater flow:

- * Introduction to Michigan's Water Resources. MSU Institute of Water Research.
- * What is Groundwater. MSU (CES). WQ35.
- * Groundwater Contamination. MSU CES. WQ34.
- * Understanding Groundwater: Michigan's Hidden Resource. MSU CES. WQ33.

Wells, private water systems:

A Guide to Home Water Treatment. MSU - CES. WQ21. * Home Water Treatment Using Activated Carbon. MSU - CES. WQ23. * Distillation for Home Water Treatment. MSU - CES. WQ22 * Reverse Osmosis for Treatment of Drinking Water. MSU - CES. WQ24. * Nitrate: A Drinking Water Concern. MSU - CES. WQ19.

* Private Water Systems Handbook. Midwest Plan Service. MWPS-14.

Publications available from ...

1. The Michigan State University Institute of Water Research, 334 Natural Resources Building, Michigan State University, East Lansing, MI 48224, (517) 353-3742.

2. Your county Extension office or directly from the Bulletin Office, 10B Agriculture Hall, Michigan State University, East Lansing, MI 48824-1039, (517) 355-0240.

3. Midwest Plan Service secretary, 217 A.W. Farrall Hall, Michigan State University, East Lansing, MI 48824-1323, (517) 353-3297.

Managing & Maintaining Existing Wells

You wouldn't let a tractor run too long without an oil change. Your well deserves the same attention. Good maintenance means testing the water every year, keeping the well area clean and accessible, keeping contaminants as far away as possible, and periodically having a qualified well driller or pump installer check the well components.

11

Assessing the Risk of Groundwater Contamination from Drinking Water Well Condition

 Use a pencell. You may want to make changes. For each category listed on the left that is appropriate to your farmstead, read across to the right and circle the statement that best describes conditions on your farmstead. (Skip and leave blank any categories that don't apply to your farmstead.) 			 Then look above the description you circled to find your "rank number" (4, 3, 2 or 1) and enter that number in the blank under "your rank." Directions on overall scoring appear at the end of the worksheet. Allow about 15-30 minutes to complete the worksheet and figure out your risk ranking for well management practices. 			
	LOW RISK. (rank 4)	LOW-MOD RISK (rank 3)	MOD-HIGH RISK (rank 2)	HIGH RISK (rank 1)	YOUR	
LOCATION Position of drinking water well in relation to pollution sources	Upslope from all pollution sources. No surface water runoff reaches well. Surface water diverted from well.	Upslope from or at grade with pollution sources. No surface water runoff reaches well,	Downslope from most poliution sources. Some surface water runoff may reach well.	Settling or depression near casing. Surface water runoff from livestock yard, pesti- cide and fertilizer mixing area, fuel storage or ferm dump reaches well.		
Isolation distances between well and farmstead contamination sources*	Meets or exceeds all state minimum required isolation distances.	Meets most minimum isolation distances.	Meets minimum isolation distances only for sources required to be at least 300 feet from well.	Does not meet all minimum isolation distances for sources required to be at least 300 feet from well.**		
Soil and/or sub- surface potential to protect ground- water	Fine-textured soils (clay loams, silty clay) or fine textured soils (silt loam or loam). Water table or fractured bedrock deeper than 25 feet.	Fine-textured soils (clay loams, silty clay) or medium-textured soils (silt loam, loam). Water table or fractured bedrock shallower than 25 feet.	Medium- or coarse- textured soils. Water table or fractured bedrock deeper than 25 feet.	Coarse-textured soils (sands, sandy loam). Water table or fractured bedrock shallower than 25 feet.		
CONDITION**				Call and the second dealer	1.0	
Condition of casing and well cap (seal)	No holes or cracks. Cap tightly secured. Screened vent.	No defects visible. Well vented but not screened.	No holes or cracks visible. Cap loose.	Holes or cracks visible. Cap loose or missing. Can hear water running.	_	
Casing depth	Casing more than 25 feet in depth and ex- tending thorugh a confining protective layer of soil such as clay.	Casing terminates above any confining formation, but is at least 25 feet in depth. Fine- textured soils	Casing terminates above any confining formation, but is at least 25 feet in depth. Coarse-textured soils	Cased terminates less than 25 feet from the ground surface. Or no casing.	100	
Casing height above land surface	More than 12 inches above grade.	8–12 inches above grade.	At grade or up to 8 Inches above.	Below grade or in pit or basement.	1692	
Well age	Less than 20 years old.	21-50 years old.	51-70 years old.	More than 70 years old.	-	
Well type		Drilled	Driven-point (sand point)	Dug well		
MANAGEMENT	A DESCRIPTION OF THE OWNER OF THE	Aller Aler and and				
Backflow preven- tion	Anti-backflow devices (such as check valves) installed on all faucets with hose connections. No cross-connections between water supplies.	Anti-backflow devices installed on some faucets with hose connections.	No anti-backflow devices. Air gap maintained.	No anti-backflow devices. Air gap not maintained. Cross- connections between water supplies.		
Unused well	No unused, unsealed wells.	Unused wells capped and protected.	Unused, unsealed well in field. Not capped or protected.	Unused, unscaled well at farmstead. Not	1-	
Water testing	Consistent satisfactory water quality. Bacte- ria, nitrate and other tests meet standards.	Occasional deviation from standards with bacteria, nitrate and other tests.	Bacteria, nitrate and other tests mostly do not meet standards.	capped or protected. No water tests done. Water discolored after rainstorms or during spring melt. Noticeable changes in color, clarity, odor or taste.		

Why should I be concerned?

About 95 percent of this country's rural residents use groundwater to supply their drinking water and farmstead needs. Wells are designed to provide clean water. If improperly constructed and maintained, however, they can allow pathogens, pesticides, fertilizer, oil products or other contaminants to enter your groundwater. These contaminants can put family and livestock health at risk.

There are documented cases of well contamination from farmstead activities near drinking water wells. The condition of your well and its proximity to contamination sources determine the risk it poses to the water you drink.

For example, a cracked or corroded well casing allows pathogens, nitrates, oil and pesticides to enter the well more easily. A spill of pesticides being mixed and loaded near the well could result in the contamination of your family's drinking water supply. Feedlots, animal yards, septic systems, fertilizer applications and waste storage areas could release large amounts of nitrate into your well.

Preventing well water contamination is very important. Once the groundwater supplying your well is contaminated, it is very difficult to clean up. The only options may be to treat the water, drill a new well, or obtain water from another source. Contaminants on your property can also affect your neighbors' wells, posing a serious health threat to your neighbors and serious liability questions for you.

How do I complete the worksheet?

Follow the directions at the top of the chart on the next page. It should take you about 15-30 minutes to complete this worksheet and figure out your ranking.

Focus on the well that provides drinking water for your home or farm. If you have more than one drinking water well on your farmstead, fill out a worksheet for each one.

What do I do with these rankings?

Step 1: Begin by determining your overall well management risk ranking. Total the rankings for the categories you completed and divide by the number of categories you ranked.

March 15, 1993

This ranking gives you an idea of how your well management practices as a whole might be affecting your drinking water. This ranking should serve only as a very general guide, not a precise diagnosis. Because it represents an averaging of many individual rankings, it can mask any individual rankings (such as 1's or 2's) that should be of concern.

Step 2: Look over your rankings for individual activities:

- Low-risk practices (4's): ideal; should be your goal despite cost and effort.
 Low-to-moderate-risk practices (3's):
- Low-to-moderate-risk practices (3's): provide reasonable groundwater protection.
 Moderate-to-high-risk practices (2's): inadequate protection in many cases.
- * High-risk practices (1's): inadequate; pose a high risk of polluting groundwater.

Regardless of your overall risk ranking, any individual rankings of "1" require immediate attention. Some concerns you can take care of right away; others could be major-or costly-projects, requiring planning and prioritizing before you take action.

FARM-A-SYST

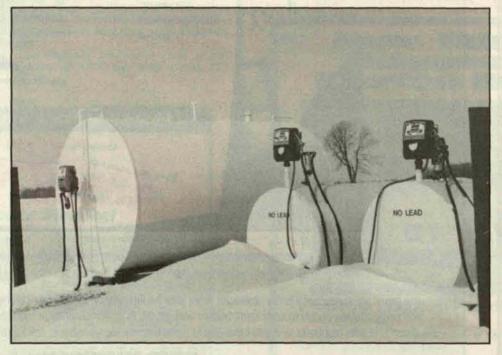
The Farmstead Assessment System in Michigan is a multiagency cooperative effort to increase awareness and encourage correction of potential water quality problems around the farmstead. The materials are based on similar materials developed in Wisconsin and Minnesota with assistance from the United States Environmental Protection Agency, Region V.

Aboveground Storage Tank Rules For Flammable & Combustible Liquids

Recently new rules were passed to regulate aboveground storage of flammable and combustible liquids. These rules are administered and enforced by the Michigan State Police Fire Marshal Division Hazardous Materials Section.

If your farm has an aboveground tank that you use to store flammable and combustible liquids that's 1,100 gallons or less, you would be covered by Code #NFPA 395. If your aboveground storage tank is 1,101 gallons or more, you are required to abide by code #NFPA 30 or #NFPA 31.

If you wish to verify the legality of an



hold 100 percent of the capacity of the tank if it were to release its load for any reason.

> Labeling Requirements For Aboveground Tanks

All tanks are required to have the following: "FLAMMABLE - KEEP FIRE & FLAME AWAY"

61 Gallon To 1100 Gallon Tanks: "KEEP 40 FEET (12.2M) FROM BUILDING"

Other Information You May Need to Know Underground tanks are not to be util-

existing tank setup or are planning to install a new aboveground tank, MFB would strongly suggest that you contact the Fire Marshal in your area for further information. Here are a few of the areas you need to be concerned with.

Distance Required Between Buildings and Aboveground Tanks

Up to 60 Gallon Tanks – At least 10 feet from a building or flammable and combustibles, could be stored in a building used exclusively for storage of flammable and combustible materials only. This type of a building must itself be located at least 10 feet from any other building. It's also required that this building have cross ventilation with at least two vents of 64 sq. in. of area, each placed at floor level.

61 Gallon Up to 1,100 Gallon Tanks – must be at least 40 feet from a building. Vehicles or equipment being filled should be at least 40 feet from any buildings. **Definition of a Building** - Any structure that will burn, or be a source of ignition! That would include a structure made up of a roof over a tank with or without walls on the side.

Even though shading a tank would help diminish evaporative fuel loss, if a fire were to occur, roofs and walls around a tank would make it extremely difficult to fight the fire, creating a very dangerous situation.

Gravity discharge (elevated) tanks require both a valve located adjacent to the tank shell which will close automatically in the event of a fire and a self-closing valve at the discharge end.

Berm Requirements to Protect Against Spillage

1,100 Gallon Tanks or Less - None is required by law. However, Michigan groundwater protection laws prohibit anyone from contaminating groundwater. It would be a good idea to do anything necessary to protect against a possible spill.

1,101 Gallon Tanks or More - A dike constructed of either concrete or masonry must be placed around the tank to be able to ized as aboveground storage tanks for flammable and combustible liquids.

Underground tanks are manufactured to require the support of the ground to help hold it together and are not vented to properly release vapors during an emergency.

- Locks are required at both the fill opening and on the dispensing device to prevent tampering.
- Aboveground tanks are not required to be elevated off the ground. They can also be on ground level or on skids; the only requirement is that they should be well supported.
- If your aboveground tank is 1,101 gallons or more, you need to submit a site plan to the Michigan State Police Fire Marshal Division, prior to installation.



M-24 Corridor Project - An MDOT Perspective

The Michigan Department of Transportation (MDOT) has been working on completing plans for an M-24 corridor since 1965. A preferred route was selected in 1977, but funding problems put the project on again - off again a number of times. In 1991, the state allocated over \$11 million in Economic Development Funds, marking the first time ever that the project had been fully funded.

According to MDOT Project Engineer Joel Ingle, the proposed route located a half mile north of Dutcher Road and a half mile south of Fairgrove Road was selected after public hearings and engineering reports were completed in 1977.

"At that time, it took the least profitable farmland, displaced the fewest number of homes and it required fewer relocations of county drains," he said. "At that time, wetlands weren't an issue and this project had already been finalized. We (MDOT) felt that the project would be grandfathered. In fact, we didn't even know there were any wetlands until we had talked to Don and Bob Mantey."

According to Ingle, MDOT has purchased a 40 acre site next to the proposed route to build or "mitigate" wetlands displaced by the road. Approximately 6.6 acres of wetlands will be replaced by 8.6 acres of new wetlands.

In terms of other alternatives, Ingle claims that MDOT studies have shown that the proposed route, at \$10.4 million, would be nearly \$2 million cheaper than the other two alternatives considered. The proposed route would displace three homes and approximately 1,000 feet of drain.

"We had two other alternatives that we looked at back in 1978 - one was down

USDA Announces Milk Order Plan

The Department of Agriculture has released its final decision on changes to federal milk marketing orders, opting for a uniform three-class pricing system that classifies milk by its uses and a mechanism that prices reconstituted milk similar to fresh, whole milk.

The decision was based on information received during hearings held in late 1990.

The proposals, if approved by producers, will mean that milk prices will continue to vary from region to region, based on production costs. They also mean farmers could receive fresh-milk prices for reconstituted milk shipped outside their region and sold as drinking milk.

Referendums will be conducted in eight markets, and dairy cooperatives will be polled in the remaining 32 markets to determine whether dairy producers approve the revised orders.

If the amended order is not approved, the milk order ceases to exist for that market.

Referendums will be held in New York-New Jersey; Eastern Ohio-Western Pennsylvania; Louisville-Lexington-Evansville; Alabama-West Florida; Greater Louisiana; Memphis; Nashville; and Paducah, Kentucky. Fairgrove Road and another was down Dutcher Road - both of which were existing right of ways," explained Ingle. "To go down the Dutcher Road alignment would cost \$12.3 million, and require relocation of seven homes and 3-1/2 miles of county drain. To go down the Fairgrove Road alignment would cost \$12.4 million and require the relocation of 15 homes and take part of a DNR pheasant reserve."

According to Ingle, using existing road alignments would provide only 66 feet of road right of way when MDOT actually needs 130 feet. Rather than purchase the additional needed 64 feet of right of way along the existing alignment, Ingle claims the outright purchase of all new road right of way will be cheaper in the long run.

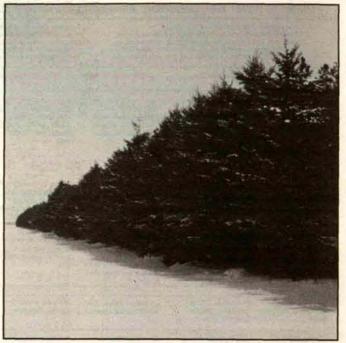
Despite the fact that new ditches will be built along the new road regardless of where it's ultimately built, Ingle also claimed it would be cheaper to construct new ditches as opposed to relocating existing drains and ditches.

What about the procedure of right of way purchase prior to permit approval? Ingle says that typically the MDOT attempts to gather input from all interested parties prior to route selection and right of way purchase.

"Most of the time, we've already got these permit approvals or the resource agencies have given their blessing on a particular route. There's a slight pecking order of priorities and you try to select the route that's going to have the least impact," said Ingle. "Wetlands were kind of low on that pecking order in 1977. We were out there buying right of way and didn't even know we had wetlands to contend with until 1990."

Ingle says that selection of an alternative route would require additional engineering studies and delay construction originally planned to get underway in September of 1993.

However, that date hinges on the recommendation of the DNR after their public hearing slated for March 24, 7 p.m. at the Caro High School cafeteria. That hearing will address the MDOT permit request to mitigate wetlands for road construction. A decision from DNR is expected within a month after the hearing. Pictured below is part of several rows of established windbreaks that could be opened up due to the proposed route on the Mantey farm.



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The USDA decision is scheduled to be published in the March 5 Federal Register. The referendums and polling will take place by April 5.

The recommended decision deals with only two areas, classified pricing and the pricing of reconstituted milk.

The order, if adopted, will provide a uniform three-class system of pricing in all orders, resulting in a more consistent pricing system. In the past, some orders had only two classes of milk and those with three did not always use the same definition of products for each class, according to American Farm Bureau Federation dairy specialist Ken Olson.

The final decision is unlikely to end discussions over milk orders among producers, Olson said. "The need to have a new base-pricing mechanism for all orders, and some producers' desire for more significant changes, would seem to assure continued activity on milk orders." In these tough economic times all business owners are looking for ways to improve their bottom line. Now Farm Bureau can help with a new money saving group Health Plan from Blue Cross Blue Shield of Michigan.

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March 15, 1993

1993 Dodge Trucks Take the Next Step in Power and Perfromance

Dodge Truck is taking the power war to the next level for 1993. Following the tremendous market response to the successful Cummins Turbo Diesel in the Ram truckline and the Magnum V-6 and V-8 engines launched across the truckline in 1992, Dodge adds more power for 1993 with a new Magnum 5.9-liter V-8.

Providing the truck industry's strongest and most dependable powertrain offerings, plus an unrelenting focus on engineering and convenience features, Dodge continues to back up its offerings with a "Simple Promise": "Overall, today's Dodge Trucks, gas and

diesel, can deliver more payload, towing and horsepower than Ford, Chevy or any import. Period.'

Underscoring that contention is the 1993 introduction of a new Magnum multi-point fuel-injected (MPI) 5.9-liter V-8 engine that produces considerably more horsepower and workload capability than the powerplant it replaces in Dodge Ram pickups, Ram Vans/Wagons and Ramcharger.

Compared to the former throttle-body in-jected (TBI) 5.9, the MPI 5.9 engine's overall horsepower is increased from 205 to 230, its 0-60 mph acceleration and wide-open throttle travel distance are improved by some 20 percent.

Gradability -- an indication of a vehicle's ability to do work when fully loaded to its gross-vehicle-weight rating (GVWR) -- is increased by as much as 33 percent with the new Magnum 5.9-liter (360 CID) V-8.

Joining the world-class Cummins Intercooled 5.9-liter Turbo Diesel model for 1993, along with a Magnum 3.9-liter V-6 and Mag-num 5.2-liter V-8 introduced a year ago, the new Magnum 5.9 underscores Dodge Truck's reputation for performance.

The Dodge Ram/Cummins Turbo Diesel exemplifies that capability. It has a higher-rated trailer towing capacity -- up to 17,000 gross combined weight -- than any other pickup truck.

To harness this power, Dodge is the only truck builder to offer heavy-duty transmis-sions -- 5-speed manual or 4-speed automatics -- across the board. Other highlights include: -- The Magnum 3.9-liter V-6 engine is

The Magnum 3.9-liter V-6 engine is rated at 180 horsepower at 4,800 rpm with a peak 225 pound feet of torque at 3,200 rpm.
 The Magnum 5.2-liter V-8 engine has a peak 230 horsepower at 4,800 rpm, along with 280 pound feet of torque at 3,000 rpm.
 Dodge Truck's heavy-duty 4-speed automatic transmission has a broader model

automatic transmission has a broader model application for 1993, including becoming a standard feature on Ramcharger models.

Larger exhaust systems -- now fully stainless steel -- with reduced exhaust back pressure enhance performance of both the Magnum V-6 and the Magnum 5.2 and 5.9liter V-8 engines.

-For cold-weather, an engine block heater is now available on all Ram pickup models, as is a heavy duty snow plow prep package for the 5.9 diesel engine.



1993 Dodge Dakota Pickups Focus On Comfort, Performance Refinements

Coming off the most successful model year ever, in which its new, more powerful powertrains created record sales, the Dodge Dakota pickup truck for 1993 has its product focus on across-the-board performance refinements

The first mid-size pickup truck available, the Dakota offers more power, more standard payload, the largest cab, the largest pickup box and a higher trailer-tow rating than any com-pact truck. Dakota is the first mid-size pickup designed with the power and chassis to handle the 10,000 pound GCWR-plus load range of 1/2 ton pickups.

Dakota is available in two-wheel-drive and four-wheel-drive models with Conven-tional Cab or Club Cab (extended cab) versions.

The 1993 Dakota receives a smoother shifting 5-speed manual transmission with its standard 2.5-liter 4-cylinder engine, while four-wheel anti-lock brakes are available throughout the lineup. Also for 1993, a full stainless steel exhaust

system has been added on all models, along with the availability of a work package (power steering, 22-gallon fuel tank) on two-wheel drive models with long pickup boxes

Both premium split bench seats and bucket seats have been designed for greater comfort. Power window and power lock switches are now more accessible, as are passenger grab handles. Outboard unibelt passenger restraints with free-running cinch adjustments also have been added.

Major redesigns of the Dodge Magnum 3.9-liter V-6 and the 5.2-liter V-8 engines in 1992, as well as significant improvements to the drivelines supporting these powerplants, were immediate favorites with Dakota's buyers.

The Magnum 3.9-liter is rated at 180 horsepower at 4,800 rpm with a peak 225

pound feet of torque at 3,200 rpm. The Mag-num 5.2-liter has a peak 230 horsepower at 4,800 rpm, along with 280 pound feet of torque at 3,000 rpm.

With the Magnum V-8, the Dakota can achieve 0-60 MPH in approximately 8.3 seconds. With the Magnum V-6, Dakota can go from 0-60 MPH in 9.3 seconds.

The Magnum 3.9-Liter V-6 is standard on four-wheel-drive Dakota bodystyles and optional on two-wheel-drive models. The Mag-num 5.2-liter V-8 is optional across the line.

A 2.5-liter, electronically fuel-injected 4cylinder engine is standard on two-wheeldrive Dakota Conventional Cab and Club Cab models.

Horsepower and torque output from the Magnum V-6 and V-8 engines is accom-modated by Dodge's heavy-duty, 4-speed automatic transmission, as well as the new 5-speed manual.

Conventional model Dakota pickups are built either on 112-inch wheelbase with a 6-1/2-foot cargo box or a 124-inch wheelbase with an 8-foot box. The Club Cab has a 131inch wheelbase and features the 6-1/2 foot box. Both boxes are double-walled construction and feature two-tier loading access.

Dakota boasts a large 2,550-pound payload capability in Conventional 2WD models and 2,000 pounds in Club Cab models. Trailer tow ratings of 6,400-pounds on the Magnum V-8 Club Cabs and up to 6,900-pounds on Conventional Cab models are available.

Standard features on Dakota include power front disc brakes, rear drum with anti-

Dodge Truck Discount Available to Farm Bureau Members

Effective immediately, Michigan Farm Bureau members can now save an additional \$500 on the purchase of several Dodge truck models, including the popular Ram pickup with the Cummins diesel and the mid-size Dodge Dakota Longbox pickup, according to MFB Member Services Manager Doug Fleming.

"This program is available to all MFB mem-bers who have paid their memberships for 1993, including new and renewed members," said Fleming. "Members need to pick up an incentive certificate from their county Farm Bureau office to take advantage of the program."

According to Fleming, the county Farm Bureau will verify the individual's member-ship, and then call Dodge for a certificate validation number that will be placed on the incentive certificate. Members can then visit their local Dodge dealer, negotiate their best deal and then present the Farm Bureau certificate for an additional \$500 savings. This savings is in addition to any national consumer rebate or factory discount (except certain employee purchase, physically hand-icapped, or college graduate programs).

The Dodge trucks available through the program include the following: Dakota - Regular Cab (4x2 and 4x4) Dakota Chassis Cab – Longbox (4x2) Ram Pickup – Regular Cab (gas or

Cummins diesel, 4x2 or 4x4) Ram Chassis Cab – (gas or diesel) Ramcharger – Sport Utility (4x2 or 4x4) Ram Vans – All models (cargo or conversion vans)

Ram Wagons – All models Caravan C/V – Cargo Van only

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lock brakes, 15-inch wheels and tires, cargo box with stake pickets, lighter, dome light, full gauges and dual outside mirrors.

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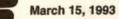
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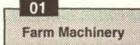
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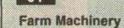


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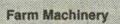
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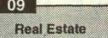
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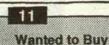
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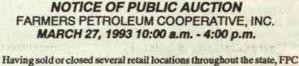
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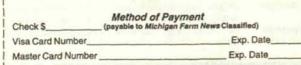
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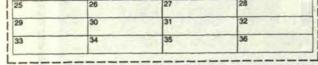
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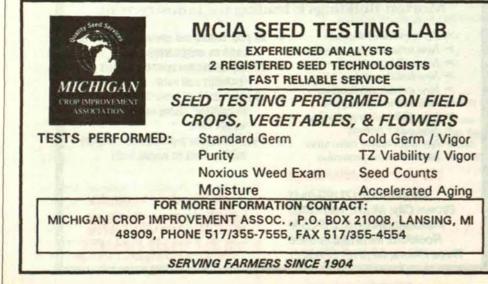
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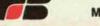




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1977 Ford 7700D tractor, no cab, 18.4-34 clamp on duals; 1976 Case 2670D 4x4 tractor, 3 pt., quick hitch, 4 hyd. outlets, 23.1-30 tires, 18.4-34 clamp on duals; 1978 JD 6600D combine w/hyd. rear assist mud hog; JD 215 15' flex head; JD 643 6-row corn head; Kubota B7100 4WD 16 hp. diesel garden tractor, 3 pt., PTO, Kubota 4' 3 pt. mower; 1978 Chevy C/65 truck, 427 gas engine, auto., air brakes, 16' Benders grn. rack, air tail gate, double swing, single post hoist.; 1971 Chevy C/50 truck, 16' metal grn. rack, floating tandem, single post hoist; 1989 Chevy Z-71 4x4 pickup, short box, 350 engine, 5 speed manual, 54,000 miles; 1990 Brillion 32' transport cultipacker, Xfold; Lilliston 15-tooth tillager soil saver; Int. 720 auto. 8-18" onland hitch plow; Int. 710 auto. 6-16" onland hitch plow; Eversman V ditcher w/hyd. cyl.; Wilrich 30' field cultivator, hyd fold; White 378 8-row Danish tooth cultivator, straight; Case 30' wheel disk, hyd. fold, rock flex, anhydrous app; Brillion 7-tooth V ripper 3 pt; M&W 1815 3 pt. 15' rotary hoe; Case Int. 5100 21-hole grain drill, grass seeder, double disk, press wheels; Unverferth 12-1/2' culti-planter II, new last spring. Int. 800 8-row cyclo air planter, dry fertilizer, cyclo-meter II; JD 17-hole grain drill; Farm Hand 7-wheel rake; Ford 3-14" 3 pt. plow; Clark 400 gal. field sprayer; Ford 3 pt. 7' mowing machine; Irrigation pump w/1977 Deutz V-8 diesel 220 hp. engine & Berkley B4EYRMBMCW pump on tandem trailer; Boss 1/2 mile traveler w/Nelson P200 gun & 1320' 4-1/2" hose; Boss 3/8 mile traveler w/Nelson P200 gun and P200 gun 990' 4-1/2" hose; appx. 4000' alum. irrigation pipe in 30' lengths; 2 pipe hauling trailers; appx. 400' black 12" plastic tile; Quantity Of Farm Miscellaneous. CALL FOR DETAILED HANDBILL (517) 743-6162 SPIKE FARMS, PROPRIETOR (517) 725-6527



March 15, 1993

April Discussion Topic – "Managing Michigan's Forests"

Privately owned forests are one of Michigan's magnificent and renewable natural resources. For private landowners, forest land can provide bountiful recreational and hunting opportunities. And when properly managed, the timber and wood products from those forest lands can be a significant source of income.

But widespread publicity about the mismanagement of state and federal forests has led some people to jump to the erroneous conclusion that all timber resource management, public or private, is negative and wasteful. Some environmental groups promote the image of timber harvesting as simple destruction of a natural resource.

In fact, private woodland owners have substantial financial incentives to be good stewards of the natural resource that is under their care. After all, a poorly maintained and harvested forest provides less return on the original investment made by the landowner. Proper multi-use management of forests, on the other hand, contributes to the value of the land and indirectly fosters wildlife preservation, clean air and water and other "green" goals. Society recognizes the important role of private, non-industrial timber owners by supporting federal government efforts to assist landowners in their stewardship practices. The U.S. Forest Service of the USDA has had a partnership with the states for over 60 years to help accomplish this objective.

The State and Private Forestry Division of the Forest Service is designed to help steward private and state lands to help make them as productive as possible, according to Michael Rains, associate deputy chief, State and Private Forestry. Seven program directions are maintained consisting of forest stewardship, planning, forest health management, rural fire defense, urban forestry, economic action programs and conservation education.

Technical and financial assistance is provided to states like Michigan through the state forester. "That assistance gets to the landowners through one or more of the seven program areas and 43 specific program components," said Rains. "For example, we assist with suppression and prevention of gypsy moth by providing leading-edge technical assistance and 5050 cost sharing with the state. In stewardship, there are forest incentive programs. If the landowner provides a stewardship plan, we provide a cost share incentive as high as 80-20 to do certain prescribed things in a management plan," he said.

\$1.7 million was provided to Michigan in cooperative programs this year, according to Rains.

Michigan's Department of Natural Resources has little or no jurisdiction or involvement with private forest management, according to Kevin Kirk, commodity specialist for Michigan Farm Bureau. "However, an effort is underway by the DNR to try to prescribe certain timber practices that would need to be followed on private land," said Kirk. "Michigan Farm Bureau has strong policy in favor of developing a Forest-Practice-Rights Act similar to the Right-To-Farm Act. We need these practices to make sure the forestry industry continues to survive and thrive in our state," Kirk said. Michigan's history includes the rich heritage of lumberjacks and timber barons who harvested the wood that built the great cities of the Midwest. Today, private landowners manage their timber with a sophisticated attitude of resource development. They see the forests, not just the trees, and recognize that multi-use management can provide a financial return and investment in

Discussion Questions:

the future.

1) In what manner should clear-cutting continue to be a part of forest management?

2) How far should an animal species dictate the future of the timber industry?

3) Should timber harvestors/operators be licensed by the DNR?

4) What should be the proper role of the DNR in helping to manage our private, non-industrial forest lands?

Understand Michigan's Pesticide Use Regulations?

The Michigan Department of Agriculture has drafted new regulations for pesticide use as required by the Michigan Pesticide Control Act as amended in 1988. These regulations have recently been approved and, therefore, are in affect. Some of the new regulations that affect your farm operation are as follows;

All Pesticide Applicators

- Must prevent off target drift.
- Must maintain pesticide equipment in sound mechanical condition including properly functioning shut-off valves. Pesticide application or loading equipment that is designed to draw water must have a properly functioning antisiphoning device.
- Must contain all spills promptly.
- Must have a "spill kit" available at all times. (This would contain material that would absorb or contain a spill.)
- Must identify sensitive areas such as schools, parks, bees, organic farms, etc. and prevent pesticides from drifting into these areas.
- Must wear protective equipment as described on the label.
- □ If applicators use drift minimization practices and have a Drift Management Plan in writing, they will be given special consideration if any

Commercial Pesticide Bulk Storage Rules

Another new set of regulations (Regulation 640) that are currently in effect are those for Commercial Pesticide Bulk Storage.

Regulation 640 regulates storage of liquid pesticides greater than 55 gallons in an individual container or dry pesticides weighing more than 100 pounds in an individual container.

These regulations are for commercial storage only. Storage by farmers is exempt unless pesticides are being distributed to others not owning the storage.

For more information on these regulations, contact MFB Legislative Counsel Vicki Pontz at 1-800-292-2680, ext. 2046.



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regulatory enforcement action were to be considered by the Michigan Department of Agriculture.

All Commercial Applicators

Must install mixing and loading pads per specifications.

Must meet posting and notification requirements and notify all persons registered as "sensitive persons" at least 24 hours in advance of applying pesticides.

The new regulations also allow for pesticide containing materials such as soil, sediment, and debris to be land applied if the active ingredient can be measured and the application is no greater than label rates.

MSU's Cooperative Extension Service will be making available a sample written Drift Management Plan as well as more information about the new regulations so that you will be able to see what will be required of you to comply.

Travel to England, Ireland, Scotland, & Wales July 8-23, 1993

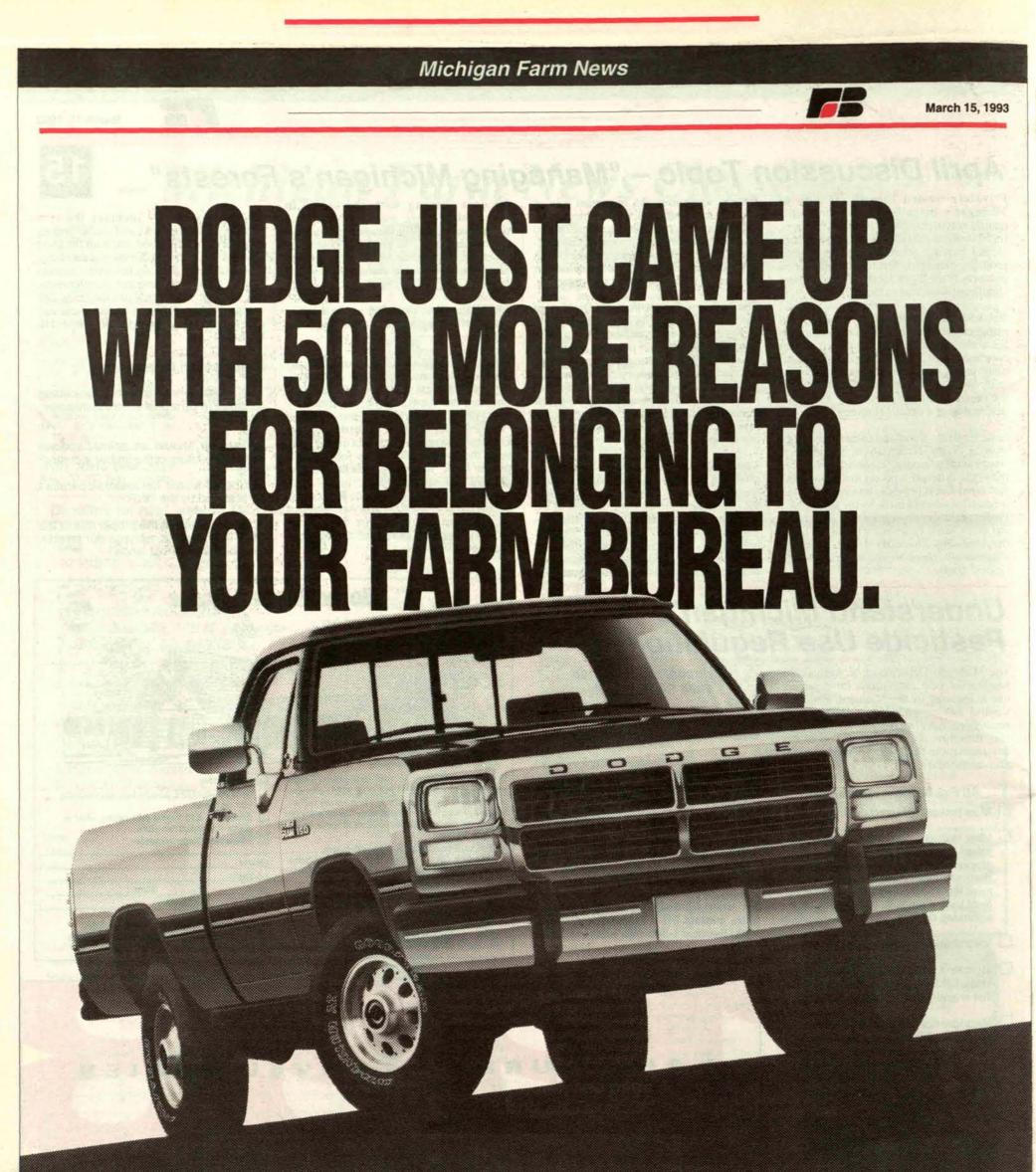
One does not need the "Luck of the Irish" to enjoy the many attractions included in this deluxe package. This 16-day tour is full of many great attractions including such things as Killarney, the Ring of Kerry, the Blarney Castle, Waterford Crystal factory, Dublin, Edinburgh Castle, an overnight stay in Ruthin Castle in Wales, theatre tickets to a Royal Shakespeare Theatre production, a Medieval Banquet, a visit to Stonehenge, Buckingham Palace, and a tour of London, as well as London Theatre tickets. Our package includes roundtrip airfare, deluxe hotel accommodations, 24 meals and much more for \$2,799 per person.

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