

# MICHIGAN FARM NEWS



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## Farm Bureau Successful in Passage of 6-Mill School

### Operating Rate for Farmland

Measure will treat all farmland fairly under new school finance package, saving Michigan farmers over \$20 million annually in property taxes.

As of May 11, both houses of the state Legislature approved the Gustafson-Profit bill that provides farmland the same 6-mill school operating status as homesteads for property tax purposes, with immediate effect, according to MFB President Jack Laurie.

"This is a great day for Michigan agriculture," Laurie said. "The successful passage of this measure, especially the provision that provides for immediate effect, is a tribute to the efforts of individual Farm Bureau members across the state who contacted their lawmakers to urge approval. Our farmer members did an outstanding job explaining that this legislation, far from being a special tax break for agriculture, instead provides for clear definition and equity in the taxation of farmland in our state."

"We appreciate the efforts of Rep. Dan Gustafson (R-Haslett) and Rep. Kirk Profit (D-Ypsilanti), the House sponsors, and of Sen. Joel Gougéon (R-Bay City), who led the fight in the Senate, for the successful passage of this measure," Laurie said.

Rep. Gustafson said Farm Bureau members played a critical role in helping to get the legislation approved. "Absolutely, especially at the critical points where the bill needed a few more votes for immediate affect," he said.

Similarly, Rep. Profit said farmer input was personally very important to him.

"There are several farmers who rent a lot of their property, and on that issue specifically, I sent them different versions of the legislation to get their input to see what the impact on their operation would be and to see if the measure would truly serve the agricultural and environmental needs we had hoped to address. The Farm Bureau and its members were very helpful in making sure that the legislation that we drafted achieved its purpose," he said.

People who criticize the legislation as being a special tax break for farmers don't understand the purpose of the bill, according to Rep. Gus-

tafson. "Any two gas stations or hardware stores are paying the same educational millage. It was only farm property that was paying different rates for identical parcels, and it was only farmers who were not being treated equally."

Agricultural interests need to be protected and taxed at the preferable, residential rate, said Rep. Profit. "If you tax farmland at a higher rate, you're going to artificially encourage development of it. It's tough to own agricultural property if you're going to tax it at the 24-mill rate and not develop it for other purposes," he said.

Thanks to passage of this measure, farmers can expect a significant savings with their property taxes reduced by approximately 50 percent, said MFB Legislative Counsel Ron Nelson.

It's a done deal! Below, Gov. John Engler signs legislation providing all farmland with an equitable 6-mill tax rate, during ceremonies at the Tom Irrer farm in Clinton County.



## What the 1995 Farm Bill Debate Means to Michigan

*Editor's Note: This is the first of a series of articles prepared by MSU's Ag Econ. Department and the MFB Commodity Activities and Research Division on the 1995 farm bill. Specific aspects will be analyzed in upcoming issues.*

By Sandra S. Batie and David B. Schweikhardt, Department of Agricultural Economics, Michigan State University

As 1995 approaches, the political machinery of Washington is gearing up to write another farm bill to replace the 1990 bill. Writing a farm bill is now a major policy exercise for Congress, requiring several months of debate. It is a massive document. The 1990 farm bill was 1,200

pages that included policy issues ranging from commodity programs to agricultural research to the Food Stamp program. There are several issues that will be considered during the 1995 farm bill debate, and each alternative raises important questions for Michigan farmers.

Michigan farmers feel the impact of the farm bill every day. Farm program payments are a major source of income (25 percent of net farm income in recent years has come from farm program payments - see Fig. 1 on page 5), conservation compliance requirements are beginning to affect production decisions, and export programs affect market prices. Every farmer in Michigan will be affected by the deci-

sions made in 1995, regardless of whether they currently participate in farm programs.

**Will there be major changes in commodity programs?** Commodity programs will once again be at the center of the farm bill debate, with alternatives ranging from continuation of the current programs to a complete restructuring of government programs for agriculture.

Some see the existing programs as having been successful, with only minor changes needed to meet specific policy objectives. The minor changes could include changes in "flex

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1995 Farm Bill

## One Down - 2,900 More to Go...

More than likely, most of the herbicides that you use on your farm have passed through this rig at one time or another. This unique sprayer, used by Michigan State University's Crop and Soil Sciences Weed Control Project, applies 600 different registered and unregistered herbicides on nearly 3,000 test plots annually. Each treatment plot measures 10 feet wide, by 30 to 40 feet long, with four to six replications, according to Gary Powell, with the Department of Crop and Soil Sciences.

"We're looking at different rates, reduced rates of products, different tank mixers, and different adjuvants, as well as new chemistry in unlabeled products that may be coming down the road," Powell explained. "All of the research station fields have been seeded to very high weed pressures, and we'll have 10 to 12 different weed species that we'll be evaluating."

Powell said that in many cases, they also work directly with various farmers that may have a unique and specific weed problem, and/or a unique commodity. For example, they have several farmer-test plots in Saginaw and Gratiot counties on sugar beets and dry beans.

The rig, powered by an International Cub, is used across Michigan. The five fire extinguisher canisters each hold 2-1/2 gallons and are plumbed into the 4-row sprayer. The rig also sports a flow track monitor system, and a radar for accurate ground speeds. According to Powell, the entire rig can be loaded into the back of one of the department's trucks for easy transport.



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## Farmland Tax Bill - The Value of Membership

The value of belonging to and being actively involved in Farm Bureau was never more vividly demonstrated than during the successful effort to provide all farmland the same 6-mill school operating status as homesteads for property tax purposes. It should be clear to everyone in agriculture that one organization - Farm Bureau - is responsible for the fact that farmers are going to save thousands of dollars each year on their property taxes.

Property tax reform has been a long and difficult struggle that has taken years of steady effort to address. Numerous referendums and legislative attempts to change the system have fallen by the wayside. But there is something to be said for plain old persistence. Farm Bureau members never gave up! They kept our policy on this issue steady and consistent and kept the heat on the legislators. Finally, the political climate evolved to the point where we could make some real progress.

A massive education and get-out-the vote effort by county Farm Bureaus helped pass Proposal A by a substantial margin. But the battle wasn't over yet. A commitment by Gov. Engler and legislative leaders to provide appropriate tax treatment for agricultural land had to be followed up on.

And Farm Bureau members did follow up. Now, understand that farmers are not the kind of folks who are given to doing massive rallies and noisy, emotional demonstrations in the halls of the capitol. We prefer the quiet, and more effective, one-on-one contacts with legislators that appeal to reason and logic.

So, legislative contacts were made by Farm Bureau members throughout the state with scores of lawmakers. At the same time, Farm Bureau members talked with their neighbors, distributed information through county newsletters and wrote letters and press releases to their local media. I've seen a stack of press clippings a foot high that testifies to the effectiveness of these local communication efforts.

Even with the backing of the legislative leadership, obtaining the 6-mill treatment for agricultural land - and, especially, securing immediate effect - was not by any means a foregone conclusion. Again, it took the steady, consistent work of county Farm Bureau members to nail down the victory.

It's a proud day for Farm Bureau. There shouldn't be a farmer anywhere in the state who should have any doubts about the value of a Farm Bureau membership. This organization's efforts on property tax reform have saved agriculture millions of dollars. I'd say that makes the small cost of Farm Bureau dues each year a very good deal.

*Jack Laurie*  
Jack Laurie, President  
Michigan Farm Bureau

## U.S. Apples One Step Closer to Japan

Japan's Ministry of Agriculture Forestry and Fisheries announced that it has resolved differences on inspection of Washington apples, which makes it 95 percent sure U.S. apples will be sold in Japan before the end of this marketing year, said Tom Mathison, chairman of the Northwest Fruit Exporters' Apple Committee.

Japan's apple market was officially opened in 1971, but it has prohibited imports of American apples since then on the grounds that U.S. fruit might contain pests and disease, particularly fireblight disease. U.S. growers say the ban has cost them \$150 million in sales over the past five years, according to the *Associated Press*.

About 2,200 acres of Washington orchards meet Japanese requirements this year and are expected to produce 400,000, 42-pound boxes for shipment to Japan during the first year, Thomas said.

## USDA to Help Nurseries Recoup Disaster Losses

Nursery owners have a chance to gain assistance in their recovery from weather-related losses suffered in 1993, according to the Agriculture Department's Commodity Credit Corporation. The sign-up period for the USDA's Tree Assistance Program began May 9 and will continue through July 29. Under the program, the USDA reimburses eligible small- and medium-scale commercial growers up to 65 percent of the average re-establishment costs for any weather-related loss that exceeds 35 percent.

Nursery stock was not included in the original disaster assistance legislation. The program was expanded by the Emergency Supplemental Appropriations Act of 1994 to include commercial nursery inventory, both annuals and perennials, that were lost due to damaging weather or related conditions in 1993, including Midwest floods.

To be eligible, owners must have an annual qualifying gross revenue of less than \$2 million in the tax year preceding the one in which the loss occurred. Reimbursement for eligible losses will be limited to \$25,000 per individual. Payments will be made through county Agricultural Stabilization and Conservation Service offices after applications have been approved by the local ASCS committee.

## Funding Available for Crop Insurance Reform

The House has approved the budget resolution conference report, which allows \$1 billion a year for the next five years for crop insurance, which is believed to be enough to adequately finance the administration's proposal to upgrade the crop insurance program.

Provisions in the proposal not supported by the American Farm Bureau include the suggested eligibility threshold that excludes farms and ranches with gross income of \$2 million or more, and the \$100,000 cap on non-insurance assistance payments -- payment for crops not covered by the current crop insurance program, according to Hyde Murray, director of governmental relations for AFBF.

## In Brief...

### Michigan April Farm Prices Unchanged From March

The Index of Prices Received by farmers in Michigan for all products as of April 15 was 131 percent of its 1977 base, according to the Michigan Agricultural Statistics Service. The April index was unchanged from March's index, but 2 percent above last year's index of 128. The price index for all crops in Michigan was unchanged from last month with wheat prices declining 3 percent. Oat, corn and soybean prices dropped 2, 5 and 3 percent, respectively, from last month, while potato prices increased 7 percent.

The livestock and products index was unchanged from March. Slaughter cows and steers/heifers noted increases of 3 and 1 percent, respectively. Calf and beef cattle prices were up 2 and 3 percent, respectively. Hog prices were down 4 percent which balanced the livestock index.

Nationally, the April All Farm Products Index of Prices Received was 146 percent of the 1977 base, two points below March. Price gains from March for cattle, potatoes, hay, and oranges offset price declines for hogs, corn, soybeans and wheat. The Index of Prices by farmers for commodities and services, interest, taxes and farm wage rates for April was 200 percent of its 1977 average. Prices were higher for all input groups except feeder livestock, feed, and farm and motor supplies.

### Increased Milk Production Trends Continue Shifting

Milk production in the 21 major dairy states during April totaled 11.0 billion pounds, according to USDA's National Agricultural Statistics Service. This is 0.6 percent more than production in these same states in April 1993. March's revised production of 11.1 billion pounds was slightly above March 1993.

Recent trends continued in the top five states. California production was up 8.4 percent and New York was up 0.7 percent. Pennsylvania was down 1 percent, Minnesota, 4.9 percent and Wisconsin, 7.3 percent. Other states showing large increases in production were Texas which was up 10.7 percent, and Idaho, which gained 14.9 percent.

April, 1994 production per cow in the 21 major states averaged 1,372 pounds, 31 pounds more than April 1993. Average production per cow jumped 105 pounds in Texas; California cows were up 95 pounds; and Idaho gained 90 pounds per cow.

The number of cows on farms in the 21 major states continued to decline. April's total of 8.01 million head was 138,000 head less than April 1993 but 5,000 head more than March 1994. Wisconsin lost 98,000 cows for the month and Minnesota 20,000. Meanwhile, California was up 28,000 head, Idaho 14,000, and Texas 11,000 head.

### Russian Debt Still Inhibits Trade Prospect

Russia is still piling up more debt, despite some payments it is making on accounts that have been delinquent. Defaults on U.S. export credit loans have jumped from \$2.5 million to \$5.8 million, keeping Russia ineligible for more agriculture department credit.

USDA General Sales Manager Christopher Goldthwait said Russia apparently is making some payments under the GSM-102 program, despite its continuing defaults.

Goldthwait said the "best case" for the U.S. making more credit available to Russia depends on settlement of the arrears and obtaining a new debt rescheduling agreement that would give an indication of ability to repay loans.

### Restitution Called for on Overdue FMHA Loans

Borrowers who have defaulted on loans to the Farmers Home Administration and refused to pay may find collectors on their doorsteps as a result of legislation pushed by Sen. Ag Committee Chairman Patrick Leahy and signed by President Clinton. The senator said, "American taxpayers should not foot the bill for millionaire farmers who, instead of repaying their FmHA loans, buy beach front homes, vintage airplanes and race cars."

He said until now the government has not been forceful enough in collecting those debts. This bill allows the secretary of agriculture to hire private attorneys who are experienced at collecting debts -- thus putting American taxpayers on the same playing field as the millionaire farmers who can afford expensive legal advice.

### Health Care Reform on Hold

The House Ways and Means Committee, which had planned to vote on the Health Care Reform package before Memorial Day, now says it will not do so until after the week-long holiday recess. Committee Chairman Dan Rostenkowski (D-Ill.) says he may even put off unveiling his plan for financing the proposal until more data can be obtained from the Congressional Budget Office. Ways and Means was the only committee that had given itself a deadline of Memorial Day to complete work on the legislation.

In the Senate, Finance Committee Chairman Daniel Patrick Moynihan (D-NY) already has said his committee, which also is waiting for data from the budget office, will not begin voting on the issue until next month.

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# How They Voted on the Farmland 6-Mill Tax Rate Proposal

Farmers in Michigan won a major legislative victory when the Michigan Senate and Michigan House of Representatives gave final and immediate effect to legislation (H.B. 5329) that will tax virtually all farmland at 6-mills for school operating. This legislative victory will mean significant property tax savings for the owners of farmland.

Below are the voting records of your respective state senator and state representative on H.B. 5329. If your state Senator and/or Representative voted "YEA" on the legislation, please take a moment to write them a brief note thanking them for their support. Address your letters to:

**State Senator**  
Honorable (name)  
State Capitol  
P.O. Box 30036  
Lansing, MI 48909-7536

**State Representative**  
Honorable (name)  
State Capitol  
P.O. Box 30014  
Lansing, MI 48909-7514

## Senate Votes

Final Tally:  
Y=Yeas (26); N-Nays (8);  
E=Excused (4); N.V.=Not Voting (1)

Dist.	Name	Hometown	Vote
33 R	Arthurhultz, Phil	Whitehall	Y
11 D	Berryman, James	Adrian	Y
16 R	Bouchard, Michael	Birmingham	Y
9 R	Carl, Doug	Utica	Y
29 D	Cherry, John	Clio	N
14 R	Cisky, Jon	Saginaw	Y
25 D	Conroy, Joseph	Flint	N
28 R	DeGrow, Dan	Port Huron	Y
30 R	Dillingham, Fred	Fowlerville	Y
26 R	DiNello, Gilbert	Clinton Twshp.	Y
7 D	Dingell, Christopher	Trenton	Y
8 R	Dunaskiss, Mat	Lake Orion	Y
35 R	Emmons, Joanne	Big Rapids	Y
12 D	Faust, William	Westland	Y
15 D	Faxon, Jack	Farmington Hills	N
22 R	Gast, Harry	St. Joseph	Y
6 R	Geake, R. Robert	Northville	Y
34 R	Gougeon, Joel	Bay City	Y
10 D	Hart, George Z.	Dearborn	N
19 R	Hoffman, Philip E.	Horton	Y
4 D	Holmes, David S., Jr.	Detroit	E
17 R	Honigman, David	W. Bloomfield	E
1 D	Kelly, John F.	Detroit	Y
38 D	Koivisto, Donald	Ironwood	N.V.
37 R	McManus, George	Traverse City	Y
27 D	Miller, Arthur J., Jr.	Warren	N
5 D	O'Brien, Michael J.	Detroit	E
18 D	Pollack, Lana	Ann Arbor	E
31 R	Posthumus, Richard	Alto	Y
36 R	Pridnia, John	Hubbard Lake	Y
20 R	Schwarz, John	Battle Creek	Y
2 D	Smith, Virgil C., Jr.	Detroit	N
24 D	Stabenow, Debbie	Lansing	N
32 R	Steil, Glenn	Grand Rapids	Y
23 R	VanRegenmorter, W.	Jenison	Y
3 D	Vaughn, Jackie, III	Detroit	N

21 R	Wartner, Paul	Portage	Y
13 R	Welborn, John A.	Kalamazoo	Y

## House Of Representatives

Final Tally: Y=Yeas (64); N-Nays (40);  
N.V.=Not Voting (6)

Dist.	Name	Hometown	Vote
92 D	Agee, James	Muskegon	N
84 R	Allen, Dick	Caro	Y
103 D	Alley, Thomas	West Branch	Y
108 D	Anthony, David	Escanaba	Y
91 D	Baade, Paul	Muskegon	Y
75 R	Bandstra, Richard	Grand Rapids	Y
19 R	Bankes, Lyn	Livonia	N
18 D	Barns, Justine	Westland	N
87 R	Bender, Robert	Middleville	Y
14 D	Bennane, Michael	Detroit	N
36 D	Berman, Maxine	Southfield	N
101 R	Bobier, William	Hesperia	Y
106 R	Bodem, Beverly	Alpena	Y
79 R	Brackenridge, Bob	St. Joseph	Y
60 D	Brown, Mary	Kalamazoo	N
1 R	Bryant, Wm.	Grosse Pte. Farms	Y
38 R	Bullard, Willis	Milford	Y
68 D	Byrum, Dianne	Holt	N.V.
27 D	Ciaramitaro, Nick	Roseville	N
48 D	Clack, Floyd	Flint	N
45 R	Crissman, Penny	Rochester	Y
86 R	Cropsey, Alan	DeWitt	Y
51 D	Curtis, Candace	Swartz Creek	Y
90 R	Dalman, Jessie	Holland	Y
72 R	DeLange, Walter	Kentwood	Y
25 D	DeMars, Robert	Lincoln Park	Y
39 R	Dobb, Barbara	Union Lake	N
15 D	Dobronski, Agnes	Dearborn	N
37 R	Dolan, Jan	Farmington Hills	N
49 D	Emerson, Robert	Flint	N
71 R	Fitzgerald, Frank	Grand Ledge	Y
34 D	Freeman, John	Madison Heights	N
107 D	Gagliardi, Pat	Drummond Island	Y
44 R	Galloway, David	White Lake	Y
102 R	Gernaat, John	McBain	Y
63 R	Gilmer, Donald	Augusta	Y
31 D	Gire, Sharon	Mt. Clemens	N
78 R	Gnodtke, Carl	Sawyer	Y
94 R	Goschka, Michael	Brant	Y
64 D	Griffin, Michael	Jackson	N
35 D	Gubow, David	Huntington Woods	N
67 R	Gustafson, Dan	Haslett	Y
55 R	Hammerstrom, Beverly	Temperance	Y
85 D	Harder, Clark	Owosso	Y
2 D	Hertel, Curtis	Detroit	N
47 R	Hill, Sandra	Montrose	Y
88 R	Hillegonds, Paul	Holland	Y
11 D	Hood, Morris	Detroit	N
73 R	Horton, Jack	Belmont	Y
109 D	Jacobetti, Dominic	Negaunee	N.V.
40 R	Jamian, John	Bloomfield Hills	N

32 R	Jaye, David	Utica	Y
96 R	Jersevic, Roland	Saginaw	Y
41 R	Johnson, Shirley	Royal Oak	N
70 D	Jondahl, H. Lynn	Okemos	N.V.
42 R	Kaza, Greg	Rochester Hills	N
17 D	Keith, William	Garden City	N
9 D	Kilpatrick, Carolyn	Detroit	N.V.
33 R	Kukuk, Alvin	Mt. Clemens	Y
13 D	Leland, Burton	Detroit	Y
65 R	LeTarte, Clyde	Jackson	Y
100 R	Llewellyn, John	Fremont	Y
81 R	London, Terry	Marysville	Y
105 R	Lowe, Allen	Grayling	Y
62 R	Martin, Bill	Battle Creek	Y
69 D	Martinez, Lynne	Lansing	N
76 D	Mathieu, Thomas	Grand Rapids	N
99 R	McBryde, James	Mt. Pleasant	Y
104 R	McManus, Michelle	Traverse City	Y
98 R	McNutt, James	Midland	Y
80 R	Middaugh, Mick	Paw Paw	Y
46 R	Middleton, Thomas	Ortonville	Y
66 R	Munsell, Susan	Howell	Y
7 D	Murphy, Raymond	Detroit	Y
58 R	Nye, Michael	Litchfield	Y
29 D	Olshove, Dennis	Warren	N
95 D	O'Neill, James E. Jr.	Saginaw	N
56 D	Owen, Lynn	Maybee	N
59 R	Oxender, Glenn	Sturgis	Y
24 D	Palamara, Joseph	Wyandotte	N
3 D	Parks, Mary Lou	Detroit	N
22 D	Pitoniak, Gregory	Taylor	N
6 D	Points, David	Detroit	N
23 D	Porreca, Vincent J.	Trenton	Y
43 D	Price, Hubert	Pontiac	N
54 D	Profit, Kirk	Ypsilanti	Y
93 R	Randall, Gary	Elwell	Y
83 R	Rhead, Kim	Sandusky	Y
53 D	Rivers, Lynn	Ann Arbor	N
30 R	Rocca, Sal	Sterling Heights	Y
10 D	Saunders, Nelson	Detroit	N
52 D	Schroer, Mary	Ann Arbor	Y
50 D	Scott, Thomas	Flint	N
61 R	Shugars, Dale	Portage	Y
74 R	Sikkema, Ken	Grandville	Y
12 D	Stallworth, Alma	Detroit	N
89 R	Stille, Leon	Spring Lake	Y
110 D	Tesanovich, Paul	L'Anse	Y
8 D	Varga, Ilona	Detroit	Y
77 R	Voorhees, Harold Sr.	Grandville	N
20 R	Vorva, Jerry	Plymouth	Y
57 R	Walberg, Timothy	Tipton	Y
5 D	Wallace, Ted	Detroit	N
28 D	Weeks, Lloyd	Warren	N.V.
97 D	Wetters, Howard	Kawkawlin	Y
21 R	Whyman, Deborah	Canton	Y
82 D	Willard, Karen	Fair Haven	Y
26 D	Yokich, Tracey	St. Clair Shores	N
4 D	Young, Joseph Jr.	Detroit	N.V.
16 D	Young, Richard	Dearborn Heights	N

## You Can Still Count on School Millages This Summer

With the recent passage of Proposal-A, you may be shocked to learn that your local school district will be holding millage elections this summer. "Don't be," says MFB's Legislative Counsel Ron Nelson.

"Voters will be required to vote on renewing the 18 mills which are locally levied on non-homestead property," Nelson explained. "When the current operating millage expires, bringing the district below 18 mills, local school districts will still be required to hold millage elections. If the local district is unable to pass and maintain the 18 mills levied on non-homesteads, the school district may not receive their entire per pupil foundation grant from the state."

The amount of the per pupil foundation grant reduction will be directly proportionate to the amount of the locally levied 18 mills that is not

approved by the voters. That could mean a loss of as much as \$400,000 for the Ovid-Elsie School District, which is facing a millage election in June, according to School Board president and area dairy farmer, Jon Miller.

"Our foundation grant would be significantly impacted if voters reject the millage question," Miller said. "In our local district, that's a sum of approximately \$400,000 on a \$9 million budget, which would have a very significant impact on our district's operation."

Miller pointed out that voters need to realize the millage votes are not for new mills, but rather a continuation or renewal of existing mills under Proposal-A. Nelson agreed, adding that the Headlee Amendment limits the total amount of revenues the state can raise.

Property taxes on non-homesteads must be levied at both the state and the local level, with the state levied portion capped at 6-mills, requiring the local districts to levy the other 18 mills as follows:

Millage	Homestead	Non-Homestead
State Levied	6 mills	6 mills
Local Levied	0 mills	18 mills
Total Millages	6 mills	24 mills

### EXAMPLE

XYZ School District, in the 1993-94 fiscal school year, levied 36 mills for school operating under the following schedule:

School Operating Millage	Year Voters Approved	For # of Years	Year School Operating Millage Expires
10 mills	1984	10 years	1994
5 mills	1986	10 years	1996
10 mills	1989	10 years	1999
6 mills	1990	4 years	1994
5 mills	1992	2 years	1994

Because all but 15 mills of operating millage will expire in 1994, the school district will conduct a millage election in June 1994, asking for 3 mill school operating renewal to be levied on non-homesteads.



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# Weather

## 30-Day Forecast - Cooler and Drier Than Normal

While cool temperatures continued to be the rule during much of early May, 30-day mean temperatures for mid-April through mid-May are still very close to the climatological normals due to the warm weather of late April.

Precipitation totals for the period were highly variable, ranging from below normal in many sections of the state to much above normal. Areas of the central and east central lower peninsula recorded very heavy rain (in some cases more than four inches in 24 hours) during the first week of May, bringing spring fieldwork to a grinding halt.

In addition, cool soil temperatures, the result of nighttime minimum air temperatures into the 30s and low 40s, have slowed or prevented seed germination in many areas of the state.

The outlook for the coming 30 days is encouraging for those who have been waiting for a break in the weather. The National Weather Service is calling for precipitation to remain at below normal levels through

4/16/94 to 5/15/94	Temperature		Growing Degree Days		Precipitation	
	Observed Mean	Dev. From Normal	Actual Accum.	Normal Accum.	Actual (Inch.)	Normal (Inch.)
Alpena	47.4	+ 0.7	139	137	2.65	2.77
Bad Axe	49.0	- 1.4	160	202	3.14	2.82
Detroit	54.9	+ 1.6	273	227	2.60	3.19
Escanaba	43.7	- 1.2	30	68	2.36	2.89
Flint	51.2	- 0.8	205	227	4.48	3.19
Grand Rapids	51.7	- 0.6	218	248	3.61	3.42
Houghton	43.9	+ 0.1	74	125	2.11	2.80
Houghton Lake	48.9	- 0.7	151	137	1.48	2.77
Jackson	52.3	- 1.1	227	243	2.35	3.32
Lansing	50.9	- 1.5	217	243	3.14	3.32
Marquette	43.4	- 0.3	85	125	2.57	2.80
Muskegon	48.7	- 2.5	128	189	2.12	3.09
Pellston	45.8	- 0.6	102	150	2.04	2.75
Saginaw	51.2	- 0.4	190	202	4.11	2.82
Sault Ste. Marie	42.4	- 1.9	47	68	2.12	2.89
South Bend	54.5	+ 0.1	281	248	1.33	3.42
Traverse City	48.3	+ 0.3	139	150	3.40	2.75
Vestaburg	49.3	- 2.4	187	208	3.37	3.28

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

mid-June. Temperatures during the same period are expected to average near to slightly below normal.

## Planting and Progress Report - Making Up for Lost Time!

T - Temp.	5/31.....6/15	5/31.....7/31
P - Precip.	T.....P	T.....P
Michigan	B.....B	B.....A
W. Corn Belt	A.....N	N.....A
E. Corn Belt	A.....N	N.....A/N
Wint. Wheat Belt	N.....N	B/N.....A/N
Spr. Wheat Belt	A.....N	B.....N
Pac. NW Wheat	N.....N	N.....N
Delta	N.....N	N/A.....N
Southeast	A/N.....N	A.....N
San Joaquin	N.....N	A.....N

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

### Michigan Conditions

Good weather conditions recently have allowed Michigan farmers to get nearly 80 percent of their corn acreage planted as of May 22, 10 percent above last year, according to the Michigan Ag Statistics Service. Soybean planting was reported 45 percent complete, while sugar beet planting was nearly 100 percent complete and potato planting was 65 percent complete.

Fruit development was slow, with some frost damage reported to tart cherries in the West Central area. Asparagus harvest was well underway and was reported 35 percent complete. Most carrots were reported seeded, while onion planting continued. Sweet corn in extreme southeastern Michigan was at the third and

fourth leaf stage, while emerging slowly elsewhere in the state.

### Midwest Conditions Similar

Most Corn-Belt states reported good planting progress, with concern over crop quality due to wet and cool conditions, which had slowed germination and appearance of newly emerged plants. Rotary hoeing was a common practice in many parts of Illinois and Indiana. Iowa farmers, meanwhile, are enjoying a much better year compared to last with record progress reported in planting and crop progress.

### Crop Progress Week Ending 5/22

	This Week	Last Year	Five Yr. Average
<b>Michigan</b>			
Corn Planted	80	70	75
Corn Emerged	20	20	30
Oats Emerged	75	50	75
Potatoes Planted	65	65	70
Soybeans Planted	45	30	35
Sugar Beets Planted	100	96	99
<b>Ohio</b>			
Corn Planted	94	84	75
Corn Emerged	58	42	42
Soybean Planting	76	55	46
Soybeans Emerged	22	16	21
<b>Indiana</b>			
Corn Planted	86	76	79
Corn Emerged	60	43	45
Soybeans Planted	55	43	45
Soybeans Emerged	22	16	21
<b>Illinois</b>			
Corn Planted	87	68	85
Soybeans Planted	50	29	50
<b>Iowa</b>			
Corn Planted	98	20	66
Corn Emerged	86	20	53
Soybeans Planted	92	15	42
Soybeans Emerged	28	2	16



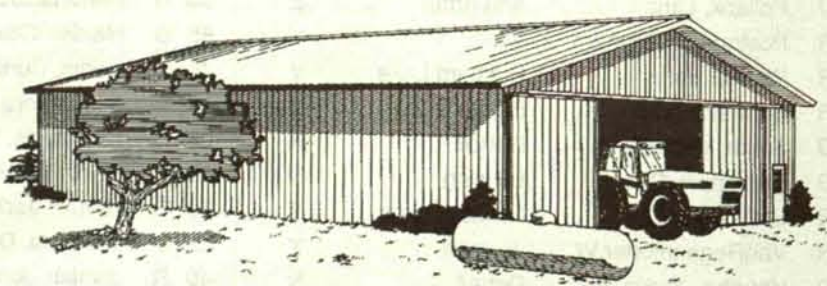
**Serving Michigan Farm Families is Our Only Business**

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

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

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

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## What the 1995 Farm Bill Debate Means to Michigan (continued from page 1)

acres" to reduce budget costs, changes in payment limits to address equity issues, or changes in loan rates.

Other proposals would make fundamental changes in the structure of commodity programs. One alternative that will likely be considered is the use of a revenue protection program as a substitute for the existing target price program.

While several versions of this program are likely to be considered, all such programs would base payments on farmers' revenue objective rather than the current mechanism based on deficiency payments for price support. Other proposals would replace the target price program with a system of "green payments" that would

pay participating farmers an incentive to accomplish specific environmental objectives.

Any major changes in commodity programs would probably affect both program crops (corn, wheat, cotton and rice) and non-program crops. Some proposals would eliminate disaster programs that are currently available for non-program crops, while some proposals might extend some form of protection (for example, revenue protection) to non-program crops.

In any case, the diversity of Michigan agriculture means that changes in commodity programs would have a larger impact on Michigan farmers than on farmers in many other states.

### Will GATT and NAFTA Mean the End of U.S. Farm Programs?

The completion of the Uruguay Round of General Agreement on Tariffs and Trade (GATT) negotiations will also affect the 1995 farm bill debate. While GATT will not affect the basic structure of target prices and loan rates, GATT will require the United States to reduce spending on export subsidies.

Both the Export Enhancement Program (EEP) and the Dairy Export Incentive Pro-

gram (DEIP) must be reduced to comply with the GATT agreement and any new programs must comply with the restrictions established by GATT.

While NAFTA and GATT both require the United States to eliminate its Section 22 import quotas that are used to maintain some U.S. farm programs, GATT will permit the U.S. to replace these quotas with import tariffs.

Any major changes in commodity programs is likely to affect both program crops and non-program crops. Some proposals would eliminate disaster programs that are currently available for non-program crops, while some proposals might extend some form of protection (for example, revenue protection) to non-program crops such as strawberries. Below, Saginaw County farmer Jeff Hoffman removes straw from his strawberries in preparation for the new growing season. Hoffman and his wife, Brenda, operate a U-Pick operation that includes strawberries, pumpkins, squash, raspberries, sweet corn and green beans.



### Would a Redesigned CRP Mean More Money for Michigan Farmers?

Michigan farmers should keep an eye on the Conservation Reserve Program (CRP) debate, which promises to be a central issue in the farm bill debate. Established by the 1985 farm bill, the CRP now has 36.5 million acres enrolled in 10-year contracts.

Participants in the program receive an average payment of \$50 per acre for idling this land and maintaining conservation practices that protect the soil. These contracts will begin expiring in 1996, with 24 million acres of land eligible to return to production between 1995 and 1997.

Because the budget costs have been considerable — \$20 billion to date — few observers believe the CRP will continue in its present form.

The 1995 farm bill must determine which of these contracts will be renewed and whether the program will be completely redesigned to address a broader range of environmental problems. If the program is not renewed, as much as 23 million base acres could return to production, thereby reducing crop prices and increasing the cost

of farm programs. Even those farmers who have not enrolled land in CRP will be affected by the outcome of this debate, since some CRP acres could be returned to crop production.

Michigan farmers could gain if the CRP is redesigned to accomplish a wider range of environmental objectives. CRP was originally targeted at reducing soil erosion, and much of the land enrolled in the program was located in the wheat-producing regions of the Great Plains.

Since 1988, CRP has included the objectives of protecting groundwater and wetlands habitat. Consequently, more acreage was enrolled in Michigan after 1988. If the CRP is redesigned to address other environmental problems, Michigan farmers could gain assistance in dealing with localized environmental problems.

Similarly, a redesigned CRP might help Michigan farmers gain compensation for the potential costs of complying with provisions of the Clean Water Act or the Coastal Zone Management Act.

### An Eye on '95 — Preparing for the Long Haul

The writing of a farm bill is a political marathon, not a sprint. New proposals are sure to arise in the coming months, and the Congress is likely to debate the farm bill for much of 1995.

Michigan farmers have much at stake in this debate. Sorting out the proposals and expressing opinions on policy preferences will be critical in the coming months.

### 1995 Farm Bill Meetings Scheduled Throughout Michigan in August

If you're interested in learning more about proposals to the 1995 farm bill and the consequences of each to your farm operation, then you'll want to be sure to attend one of three special meetings this summer. The purpose of the meetings is to provide Farm Bureau members with specific information about 1995 farm bill issues and alternatives.

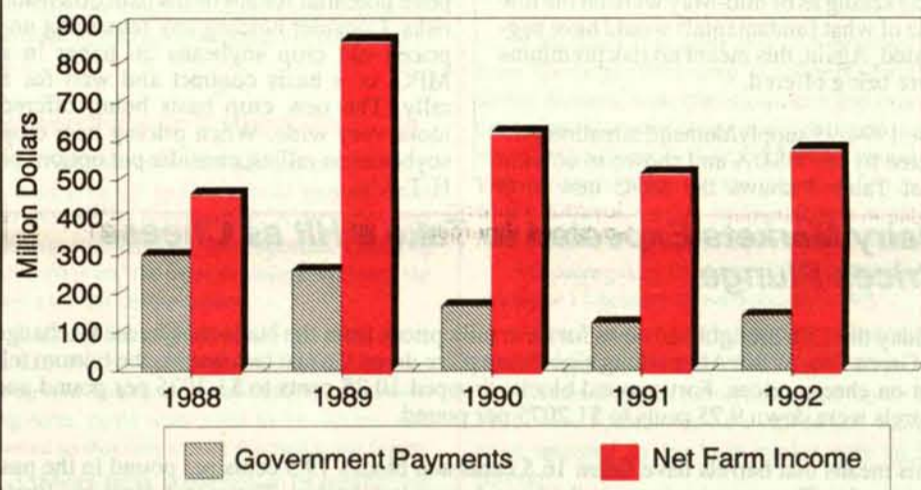
"Farm Bureau will be deeply involved in working with Congress next year on the 1995 Farm Bill," said Al Almy, director of the Public Affairs Division at MFB. "Farm Bureau will develop policy on the new farm bill this year to determine what its position will be when Congress writes the legislation. It's important that our members be aware of the different proposals being discussed in Washington,

D.C. as they develop policy, and consider the impact to their farm operations."

The meetings will begin at 10 a.m. with a general discussion of the major issues and alternatives for dealing with them. Following lunch, three workshops will be held. The separate workshops will address livestock and dairy issues, field crop issues, and political/environmental issues. The meetings will adjourn at 3:30 p.m.

The meetings will be held Monday, Aug. 15, at the Holiday Inn, Grayling; Tuesday, Aug. 16, at the Holiday Inn East, Grand Rapids; and Aug. 17 at the Holiday Inn South, Flint. Reservations for the meetings must be made through the county Farm Bureau office no later than Aug. 1.

**Figure 1. Net Farm Income and Government Payments Received by Michigan Farmers**



Source: USDA

### Will the Old Arguments Win in the New Washington?

Washington has changed since the 1990 farm bill was written, and these changes will affect the 1995 farm bill debate. Three fundamental changes may mean that traditional arguments in favor of farm programs may face new opposition in Washington.

First, intensified budget pressures now dominate every policy debate in Washington. The rules of the congressional budgeting process require that every increase in program spending be offset by a tax increase or a reduction in another program.

This rule pits each federal program against every other program in a continuing scramble for a share of the federal budget. Agriculture will have difficulty in increasing its share of the budget under these rules and will likely face continuing attempts to reduce spending on existing USDA programs.

The second major change is in the membership of Congress. Given the high number of retirements expected before this year's congressional elections, over one-half of the members of the House of Representatives will have been elected since 1990 and will never have participated in the writing of a farm bill. At least two-thirds of the 48 members of the House Agriculture Committee will never have participated in the writing of a farm bill.

These new members will bring a wider variety of concerns and objectives to the farm bill debate. While most members of the committee continue to see farm income problems as their highest priority, many of them may not view existing farm programs

as an adequate means of addressing the needs of all farmers.

Other members may view trade policies, environmental issues, food safety, nutrition programs or rural development issues as higher priorities. The effect of these new members on the outcome of the farm bill debate is impossible to predict, but it is certain that these new members will demand a stronger role in the shaping the farm bill and in addressing issues important to their constituents.

The third major change is that the traditional relationships that have framed past farm bill debates may no longer hold during the 1995 debate.

The traditional justification for farm programs — that farmers have lower incomes than non-farmers — is losing its force as the gap between the incomes of farm and non-farm families has closed.

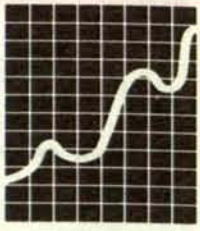
Consumer interests have increased in importance as nutrition programs have taken a larger share of the USDA budget. Agriculture is no longer viewed as unique and is less likely to be exempt from regulations applied to other industries.

The impact of these changes on the shape of the farm bill is also difficult to predict, but these changes — combined with increased budget pressures and changes in the membership of Congress — will frame the initial farm bill debate, the alternatives that are considered, and the political and economic feasibility of each alternative.



6

# Market Outlook...



## FARM BUSINESS OUTLOOK

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

### WHEAT

The USDA pegged the May 1 winter wheat production estimate for 1994 at 1.657 billion bushels, slightly lower than average trade guesses. Michigan is expected to produce 27.36 million bushels in 1994, up almost 24 percent from 1993. The expected increase is due to 30,000 more acres projected to be harvested and an estimated 7 bushel per acre higher yield at 48 bushels per acre.

The USDA also released new supply/demand estimates, shown in Table 2. A continued decline in exports and a decline in feed use are the two biggest differences in the wheat numbers between 1994 and 1993 projections.

**Strategy:** The market is near what fundamentals would suggest. However, if we see a rally in corn and beans, there may be some spillover.

Be ready to price new crop on rallies. The only problem is the new crop basis being offered seems wide. If they will let you do a H-T-A on a new crop wheat rally, you may want to consider it.

### SOYBEANS

The updated soybean supply/demand figures in Table 3 show the USDA made only a slight change on the 1993-94 crop year estimates, which made projected ending stocks even a little tighter. Projected crushings were increased 5 million bushels, which puts ending stocks as a percent of use under 8 percent.

At this point, the \$6.50 old crop prices we were seeing as of mid-May were on the low side of what fundamentals would have suggested. Again, this meant no risk premiums were being offered.

The 1994-95 supply/demand situation projected by the USDA and shown in column 3 of Table 3 shows the \$5.85 new crop

prices being offered mid-May were higher than the fundamentals would suggest. I feel the trend yield of 35 bushels per acre may be a bit high if you look at 35 years. I would suggest 34.5, but this really doesn't change the story much. The biggest disappointment is that exports are not expected to bounce back hardly at all.

**Strategy:** Again, I feel there is more upside price potential for soybeans than downside risks. Consider holding any remaining unpriced old crop soybeans on paper in a MPC, or a basis contract and wait for a rally. The new crop basis being offered looks very wide. When pricing new crop soybeans on rallies, consider put options or H-T-A's.

### Dairy Markets Expected to Take a Hit as Cheese Prices Plunge

Friday the 13th brought bad news for farm milk prices from the National Cheese Exchange in Green Bay, Wisc. After taking significant price drops the last two weeks, the bottom fell out on cheese prices. Forty-pound blocks dropped 10.25 cents to \$1.1975 per pound and barrels were down 9.75 cents to \$1.2075 per pound.

This means that barrels have fallen 16.5 cents and blocks 19.5 cents per pound in the past two weeks. The current prices are the lowest since last August. The recent drops are likely to lower farm prices by \$1.75 to \$2.00 per hundredweight (cwt.) in coming weeks. Butter prices have remained steady with Grade AA at \$.68 per pound and Grades A and B at \$.64 per pound.

### CORN

The USDA updated its 1993-94 supply/demand estimates and released its first projection for the 1994-95 corn marketing year on May 10. The numbers are shown in Table 1.

In its 1993-94 estimate, projected feed use is increased by 25 million bushels and lowered projected exports by a like amount, leaving the ending stocks estimate unchanged.

These fundamentals would suggest old crop corn at \$2.50 per bushel may be a little under-priced even with a normal crop this summer. The market does not seem to be offering a risk premium, although we have most of the growing season to go.

If you compare the USDA 1994-95 estimates shown in Table 1 with my estimate in the April 30 issue, you will see the USDA has a more optimistic supply/demand situation, but the same price forecast. While these fundamentals would suggest a \$2.20-\$2.35 price this fall like we're seeing being offered, they again offer no risk premium.

The main item for 1994-95 where the USDA and the market may disagree would be the Feed Seed and Industrial use figure. The USDA has increased it in line with the

Wheat	←	↑
Corn	←	↑
Soybeans	←	↑
Hogs		↑
Cattle	←	↓

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

Clinton proposal for ethanol required use under the Clean Air Act. The market is a little hesitant about that yet, but we should know soon.

**Strategy:** Again, I am more optimistic about pricing opportunities over the summer than the recent lows we have seen. With the tight stock situation, it will not take much increased use or a weather scare to give us good pricing opportunities. But we must not set our sights too high and we must be ready to pull the trigger.

### BEEF AND HOGS

We not only have more cattle being slaughtered than last year, but they are weighing 50 pounds, or 4 percent, more. While the market expected an increase, it did not expect one quite this large.

The USDA now expects beef production to be up 4 percent over last year. And when this is put together with pork production being larger than expected, it does not help the price of either one, especially when broiler production continues to be on the rise.

In its first projection for 1995, the USDA estimates beef production will be up 2.4 percent over 1994.

The USDA increased its projection for 1994 pork production by 1 percent in the May projection versus the April projection, due to the higher than expected slaughter we are seeing now.

We now only expect pork production to be down 1 percent instead of 2 percent for the year. In its first projection for 1995, the USDA expects pork production to be up 3 percent from this year.

**Strategy:** While the greater than expected supplies should have bid down the futures, I feel it may have been overdone. At this time, I do not see any forward pricing opportunities for either cattle or hogs.

	USDA Proj.	USDA Proj.	Hilker Proj.
	1992-93	93-94	94-95
<b>Corn Acreage (Million Acres)</b>			
Acres Set-Aside and Diverted	5.3	10.5	?
Acres Planted	79.3	73.3	78.6
Acres Harvested	72.2	63.0	71.5
Bu./A. Harvested	131.4	100.7	122.1
<b>Stocks (Million Bushels)</b>			
Beg. Stocks	1100	2113	827
Production	9482	6344	8795
Imports	7	20	5
Total Supply	10,589	8,477	9,557
<b>Use:</b>			
Feed	5301	4825	5200
Food/Seed	1511	1600	1750
Total Domestic	6813	6425	6950
Exports	1663	1225	1350
Total Use	8476	7650	8300
Ending Stocks	2113	827	1257
Ending Stocks Percent of Use	24.9%	10.8%	15.1%
Regular Loan Rate	\$1.72	\$1.72	\$1.89
<b>U.S. Season Average</b>			
Farm Price, \$/Bu.	\$2.07	\$2.55	\$2.30
Source: USDA & Hilker			

	USDA Proj.	Hilker Proj.	
	1992-93	93-94	94-95
<b>Wheat Acreage (Million Acres)</b>			
Acres Set-Aside and Diverted	3.5	.5	.5
Acres Planted	72.3	72.2	71.5
Acres Harvested	62.4	62.6	61.9
Bu./A. Harvested	39.4	38.3	38.1
<b>Stocks (Million Bushels)</b>			
Beg. Stocks	472	529	559
Production	2459	2402	2358
Imports	70	95	80
Total Supply	3001	3026	2997
<b>Use:</b>			
Food	829	845	860
Seed	98	97	97
Feed	191	300	250
Total Domestic	1118	1242	1207
Exports	1354	1225	1175
Total Use	2472	2467	2382
Ending Stocks	529	559	615
Ending Stocks Percent of Use	21.4%	22.9%	25.8%
Regular Loan Rate	\$2.21	\$2.45	\$2.58
<b>U.S. Season Average</b>			
Farm Price, \$/Bu.	\$3.24	\$3.20	\$3.10
Source: USDA & Hilker			

	USDA Proj.	Hilker Proj.	
	1992-93	93-94	94-95
<b>Soybean Acreage (Million Acres)</b>			
Acres Planted	59.1	59.4	61.1
Acres Harvested	58.2	56.4	60.0
Bu./Harvested Acre	37.6	32.0	35.0
<b>Stocks (Million Bushels)</b>			
Beg. Stocks	278	292	155
Production	2188	1809	2100
Imports	2	5	5
Total Supply	2468	2106	2260
<b>Use:</b>			
Crushings	1279	1255	1275
Exports	770	590	600
Seed, Feed and Residuals	127	106	105
Total Use	2176	1951	1980
Ending Stocks	292	155	280
Ending Stocks Percent of Use	13.4%	7.9%	14.1%
Regular Loan Rate	\$5.02	\$5.02	\$4.92
<b>U.S. Season Average</b>			
Farm Price, \$/Bu.	\$5.50	\$6.45	\$5.80
Source: USDA & Hilker			



# 7 Plan Your Work -- Then Work Your Plan

**John D. Jones, Telfarm Director**  
**Department of Agricultural Economics**  
**Michigan State University**

Mid-year 1994 is upon us. Has your farm made progress in areas that are important and meaningful to you? Will 1994 be a year that you will find satisfaction in remembering? A mid-year evaluation may provide some insight into your family and business planning.

Arthur Bailey of Bailey-Terra Nova Farm near Schoolcraft, Mich., made the following comment about his management philosophy during an MSU Extension Swine In-Service Workshop, "Plan your work, then work your plan." Bailey's adage is short, but very sage, advice.

In my associations with farm managers, those making outstanding progress seemed to have a well thought out plan that spells out where the manager wants to go and what is needed to reach that goal.

The current Animal Management Advancement Program (AMAP) and the future Plant Management Advancement Program (PMAP), sponsored by MSU Extension, does an excellent job of leading participants through a process of setting both long and short term goals.

Your business plan and mission statement must also recognize the impact of external factors such as public desires and needs, available and alternative markets, governmental regulations and other world factors.

The goal setting process works for any size business at any stage in life. It helps sort out the grain from the chaff and allows you to concentrate on progressing in areas that are important to you.

## Ingredients to a Business Plan

**1. Mission statements** personalize the business, giving it its own special identity, character and path for development. A strong mission statement will embody the important values of the business and the owners while addressing the major external circumstances.

**2. Long-term goals** should provide direction and should be reasonable, achievable, inspiring and contribute to the business mission. Long-term goals also need to be visible and eventual so that they can be reached in the future.

**3. Short-term goals** have to be specific and measurable so it can be determined when the goal is reached. The short-term goal should be set to have the greatest impact with respect to meeting your long-term goal. The short-term goal should also have a specified time period, usually a year or less.

**4. Tactical plans** provide a road map of activities which need to be done to reach your goal. Tactics are specific activities that must be

carried out to accomplish a goal. Tactical planning involves a review of your goals, notes, calendar, and unfinished activities. The tasks are prioritized with respect to importance and urgency. Then the tasks with instructions are communicated to the individuals involved.

## Riding Out the Rough Times

The business plan is also a living document that requires continual attention and revision. The frequency for formal revision depends on the plan's complexity and the magnitude of adjustment needed to meet a change in actual versus planned action.

A bad bout with Mother Nature can sometimes force your business plan to be unworkable and in need of a serious revision. Make needed revisions to your short-term goals as realistically as possible and press on, praying that the next time you will be smiled upon by Mother Nature.

Continued perseverance toward your long-term business goals will yield the greatest progress as long as your efforts remain focused.

## Financial Record Keeping Needs

A business records system needs to be designed to deliver both tax accounting and management information. Tax accounting information is needed to file legally required reports and returns. Management information is used in the

control and planning functions of the business operation.

Business records for management and financial planning are where the Telfarm program can provide the most benefit. These needs are critical to any business plan. The measurement of financial progress and viability is essential to any business plan, although there can be other goals related to individual non-monetary goals and values.

Monthly monitoring of the financial goals and progress is a wise practice. This means more than just balancing the checkbook. Check how your actual expenditures and incomes compare with your budgeted plan that maps out how to meet your short-term goals. Some businesses will need to take periodic inventory and produce accrual-based financial statements for tighter management control and creditor needs.

## Ask the Tough Questions

- Is your actual financial performance in agreement with your budgeted financial plan?
- Are changes needed in future months to adjust for past occurrences?
- Is your marketing meeting the expectations in the budget?

# FARM BUSINESS OUTLOOK

- Are you able to lock in quality inputs at good prices that will allow you to carry out the business plan?
- Do you have enough liquidity or working capital to meet the future cash flow needs of the business?

Cost or enterprise budgets will provide the manager with another source of critical information needed for budgeting and planning. The efforts made in this area provide valuable benefits to management planning that can't be acquired anywhere else.

It is in the awareness and application of one's individual strengths that allow a business to prosper and grow. Cost or enterprise accounting is the activity gives the manager the needed internal information to pull together the proper mix of enterprises for optimal growth.

## Robust Demand for U.S. Apples Continues

This year's U.S. apple crop — up marginally from the large 1992 crop — is encountering strong demand, with sales to Mexico and other export markets reinforcing brisk domestic demand for fresh apples. Also brightening the outlook for apple exports is the expected opening of the Chinese market to Washington apples later this year.

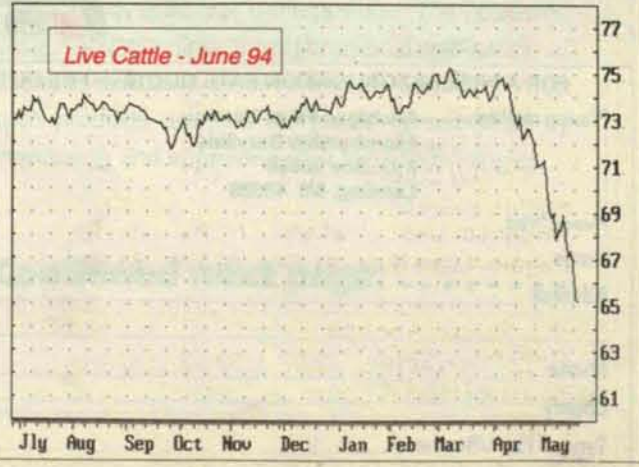
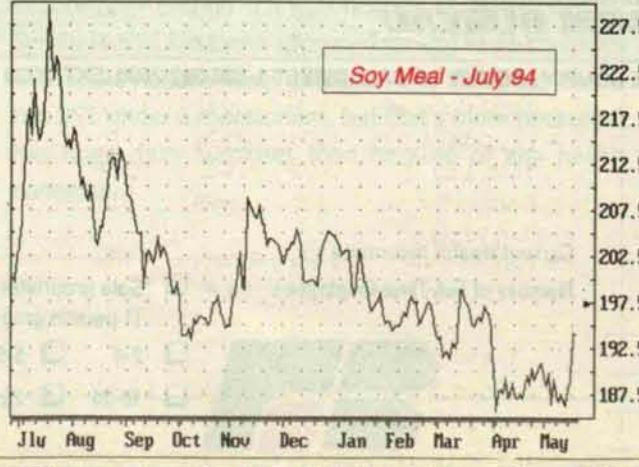
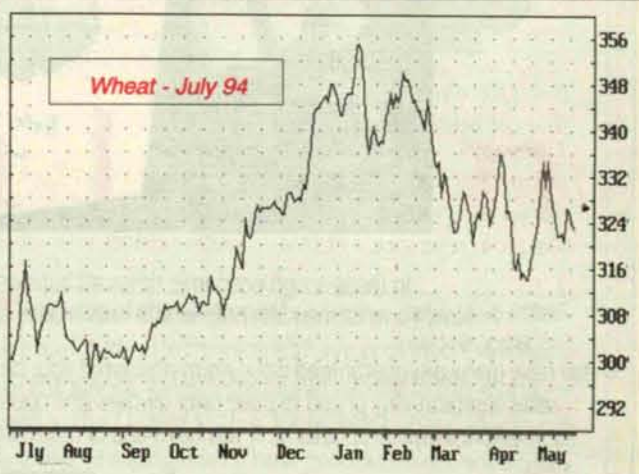
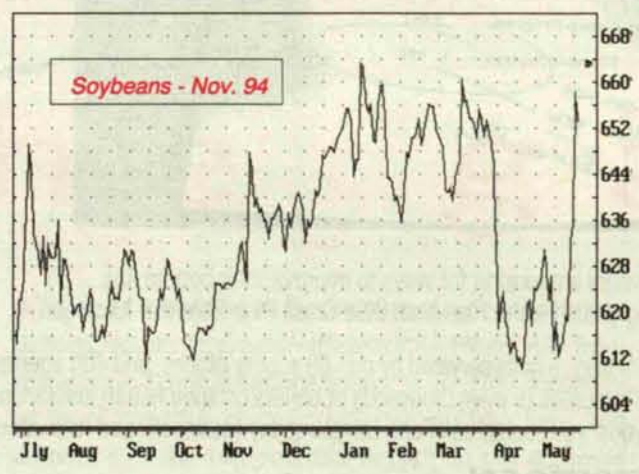
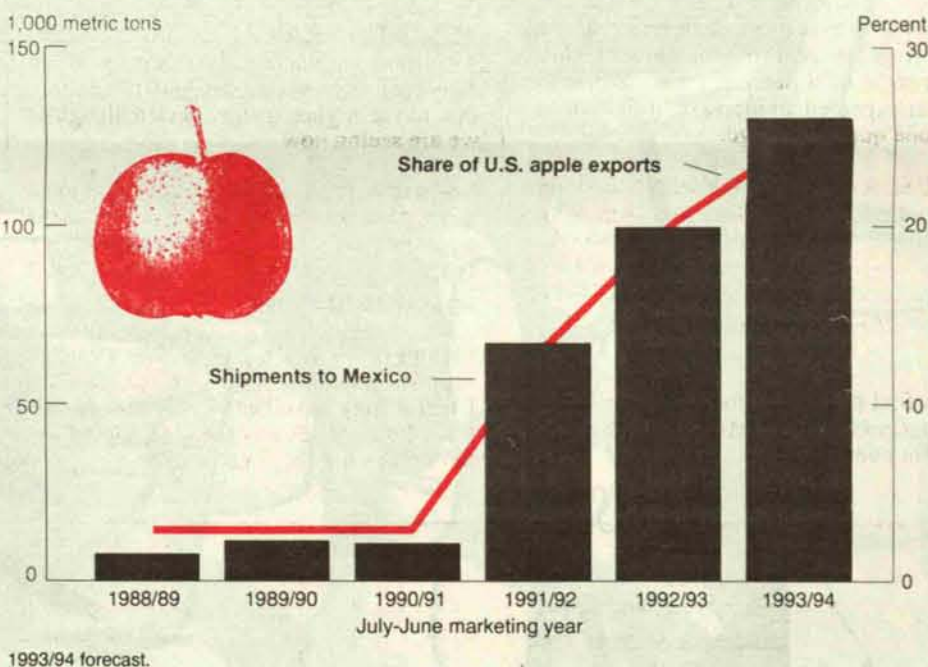
- Grower prices for fresh apples in February averaged 11 percent above February 1993.

- Retail prices for fresh apples in February averaged 6 percent higher than a year earlier.

- Stocks of apples for processing on March 1, 1994, were 1 percent below a year earlier, while those intended for the fresh market were up 5 percent.

- U.S. apple exports to Mexico during the 1993-94 marketing year (July-June) are forecast up 30 percent from last year, continuing a rapid expansion in exports to this market during the 1990s. The increase is largely the result of improved market access — including elimination of apple import licensing in 1991 and mutual agreement on phytosanitary controls. Mexico became the second-largest export market for U.S. apples last year, following Taiwan.

U.S. Apple Exports to Mexico Soar Since Ease of Import Barriers in 1991





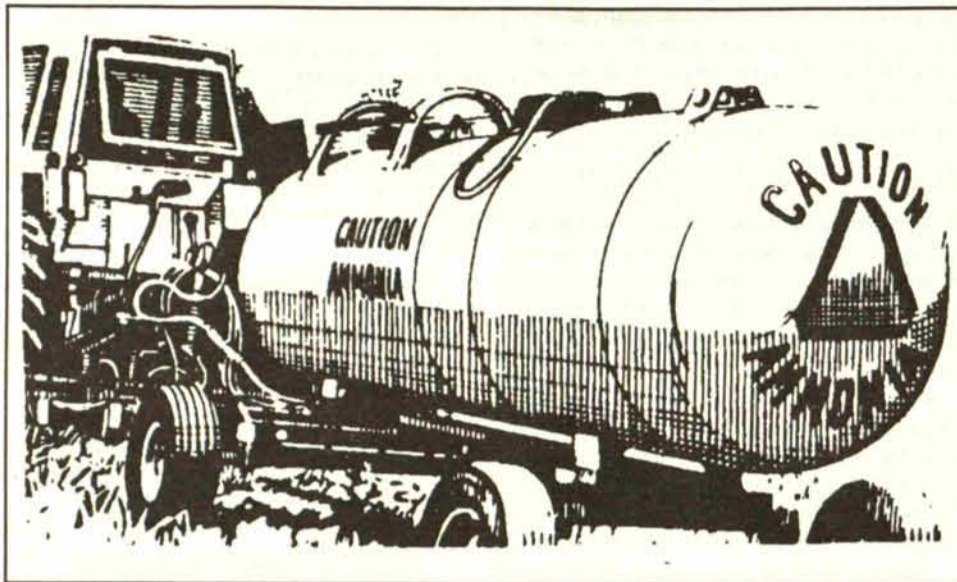
# 8 Guard Against Anhydrous Ammonia Injuries

When used with proper precautions, anhydrous ammonia is a safe and efficient source of nitrogen fertilizer. But when equipment fails or safety is lax, anyone in the area is at risk for severe burns.

The biggest risk is an accidental release of the chemical. Inside the tank, ammonia under pressure remains in liquid form at a temperature of -28 degrees F. Once released, whether into the soil or the air, it becomes a vapor that seeks the most available source of moisture. Unfortunately, since your body is made up of 90 percent water, that moisture source may be you -- and the chemical will freeze burn its way into your skin, eyes, or lungs.

Ammonia consumes six times its own weight in moisture from any available body tissue -- so the only treatment is water, water, and more water.

Your best protection is to make sure the equipment is in sound operating condition -- and to protect against accidental injury by wearing personal protective equipment. Research shows that in 80 percent of the accidents involving anhydrous ammonia, 80 percent of the workers had access to gloves, but only 29 percent were wearing them. And 60 percent had



goggles, but only 22 percent were wearing them.

Most injuries happen when anhydrous ammonia is being transferred from one tank to another -- a time when operators frequently forget to take proper safeguards. If a hose rup-

tures, or if a valve or coupler fails, you'll be defenseless without proper protection. Here's the kind of protection you need:

•Goggles to protect your eyes. Don't rely on eyeglasses or sunglasses, because they leave an open area between the lens and your eye. Rec-



ommended are non-vented goggles designed to keep vapors from coming into contact with your eyes. While fitting snugly, they will fit over eyeglasses.

• Loose-fitting rubber gloves designed for anhydrous ammonia handling. They protect your hands from thermal freeze burns. Turn the cuffs out so liquid ammonia doesn't run down your sleeve.

• A heavy, long-sleeved work shirt. It will keep the chemical from reaching your skin.

• Long pants with the cuffs outside your boots. They will protect your lower body.

If ammonia gets on your skin or in your eyes, flush the areas with clear water for at least 15 minutes. An ammonia blast to the face could freeze your eyelids shut. If that happens, don't force them open; instead, apply water to the lids and continue flushing until they open.

If ammonia gets on clothing, flush it with water until it thaws, then remove it and continue to rinse the skin for at least 15 minutes.

Always seek medical attention after exposure to anhydrous ammonia. Proper treatment will reduce the severity of the injury and speed recovery. Never apply salves or ointments to ammonia burns. Treat them according to your physician's recommendations.

## A NEW MONEY SAVING HEALTH PLAN

FOR FARM OWNERS & OPERATORS

Michigan Farm Bureau of Companies

Comprehensive Health/Medical/Surgical

Blue Cross Blue Shield of Michigan

FAMILY HEALTH INSURANCE PROPOSAL FARM OWNERS/OPERATORS

ASSOCIATION

COVERAGE:  CMM 250  CMM 500  CMM 1000

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

Annual Premiums

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

Note the savings with the new Farm Bureau Plan

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

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



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Please Print

Name \_\_\_\_\_ Current Health Insurance \_\_\_\_\_

Address \_\_\_\_\_ Number of Full Time Employees \_\_\_\_\_  Sole proprietor (1 person group)

Phone \_\_\_\_\_  2-4  5-9

County \_\_\_\_\_  10-24  25 and over

Type of Farm/Business \_\_\_\_\_

MFN

### Calendar of Events

June 1-2, Michigan Conference on the Horse Industry, MSU Kellogg Center, call Kevin Kirk at (517) 323-7000, ext. 2024.

June 10-12, 9th Annual Farmers Antique Tractor & Engine Association meeting, Adrian, call Jim Demlow, (517) 436-3529 or 463-3955.

June 20-24, Young People's Citizenship Seminar, Calvin College, Grand Rapids, 1-800-292-2680, ext. 3234.

June 22-24, College Week, Michigan State University.

June 29, MSU Weed Day, Botany and Plant Pathology Farm, East Lansing, call Jim Kells, (517) 355-2173.

July 19-21, MSU-AG Expo, Michigan State University.

July 20, Summerfest, MFB Center, Lansing, call Kevin Kirk (517) 323-7000, ext. 2024.

July 23, Forage Field Day, Lake City Agriculture Experiment Station.

July 26, Plant Problem Diagnosis Field Day, Michigan State University, call Jim Kells (517) 355-2173.

July 27, MSU Muck Research Farm Field Day, Laingsburg, 1 p.m., call Darryl Wanke, (517) 355-0210.

July 29-31, ASA Soybean Expo 94, Kansas City, Mo., contact the American Society of Agronomy Office, 1-800-688-7692.

August 5-7, Llamafest, Kalamazoo Fairgrounds, Kalamazoo. Fourth annual meeting includes workshops, demonstrations, show and sale for Llamas. Call Leah Bird, (616) 657-6379 for more information.

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

Michigan Farm News  
P.O. Box 30960  
Lansing, MI 48909-8460  
FAX: (517) 323-6793

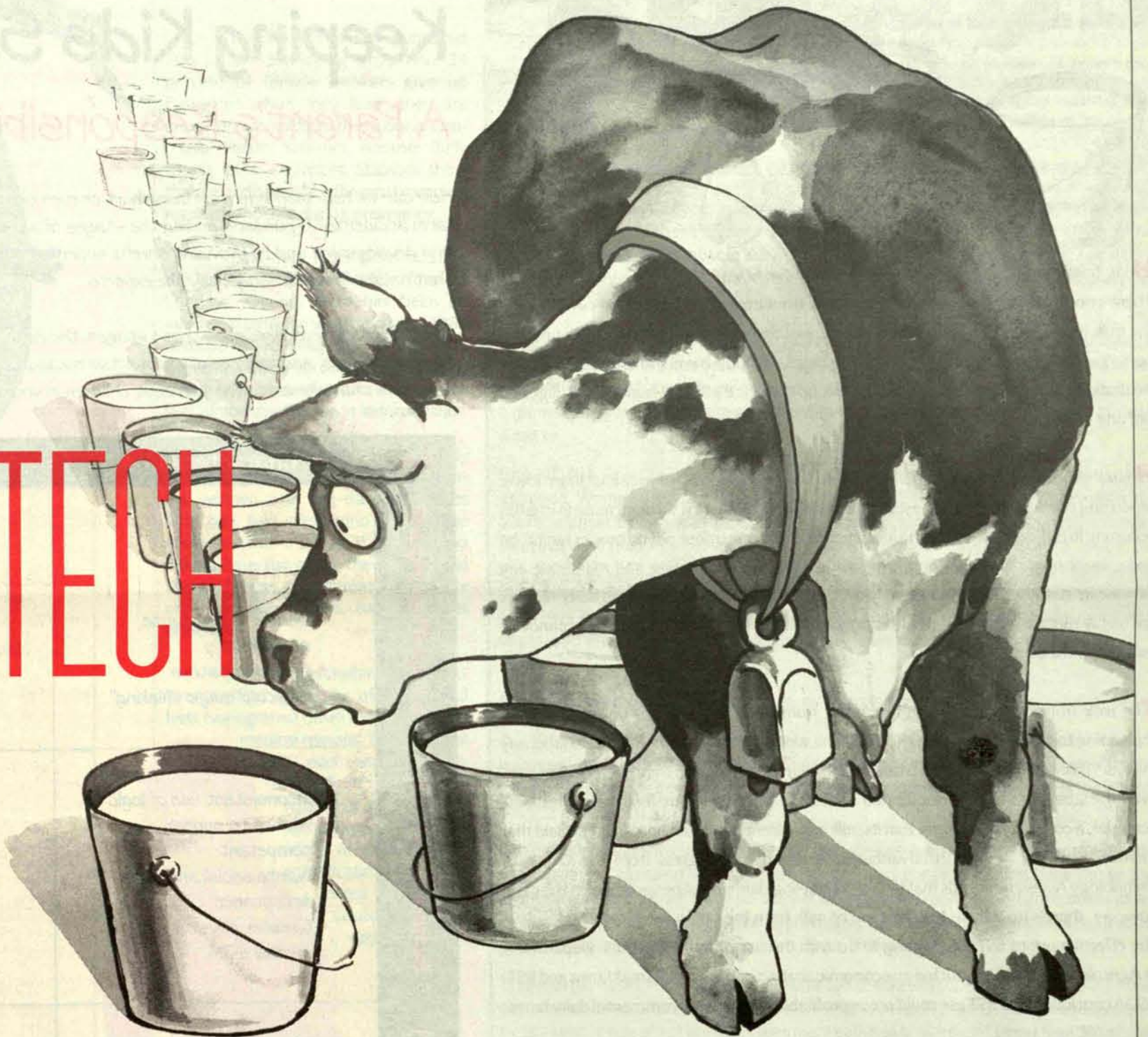


# HEALTH HARVEST

A Health and Wellness Publication of Michigan Farm Bureau

May 1994 VOL 14, No. 1

## BIOTECH



## by the gallon

**G**enetically engineering pharmaceutical and other drugs is a technology that has been a boon in medicine and other fields. For agriculture applications, it's become possible to produce bovine growth hormone, also called bovine somatotropin (BST) through biotech engineering. The hormone is naturally occurring in cows and promotes milk production (and has other functions) in cows. Testing shows that the synthetic hormone can boost milk production by up to 20 percent.

**B**ST, used according to the manufacturer's recommendations, results in greater efficiency — more milk from fewer cows. Some nutritionists have praised the possibility of more plentiful, cheaper milk for children here and abroad. BST also has potential impact on our domestic economy — and on U.S. competition in world markets. Synthetic BST has been approved for use in 25 countries with more nations likely to follow. The European Union has BST under a moratorium, but that's more because it has huge dairy surpluses than because of any health concerns.

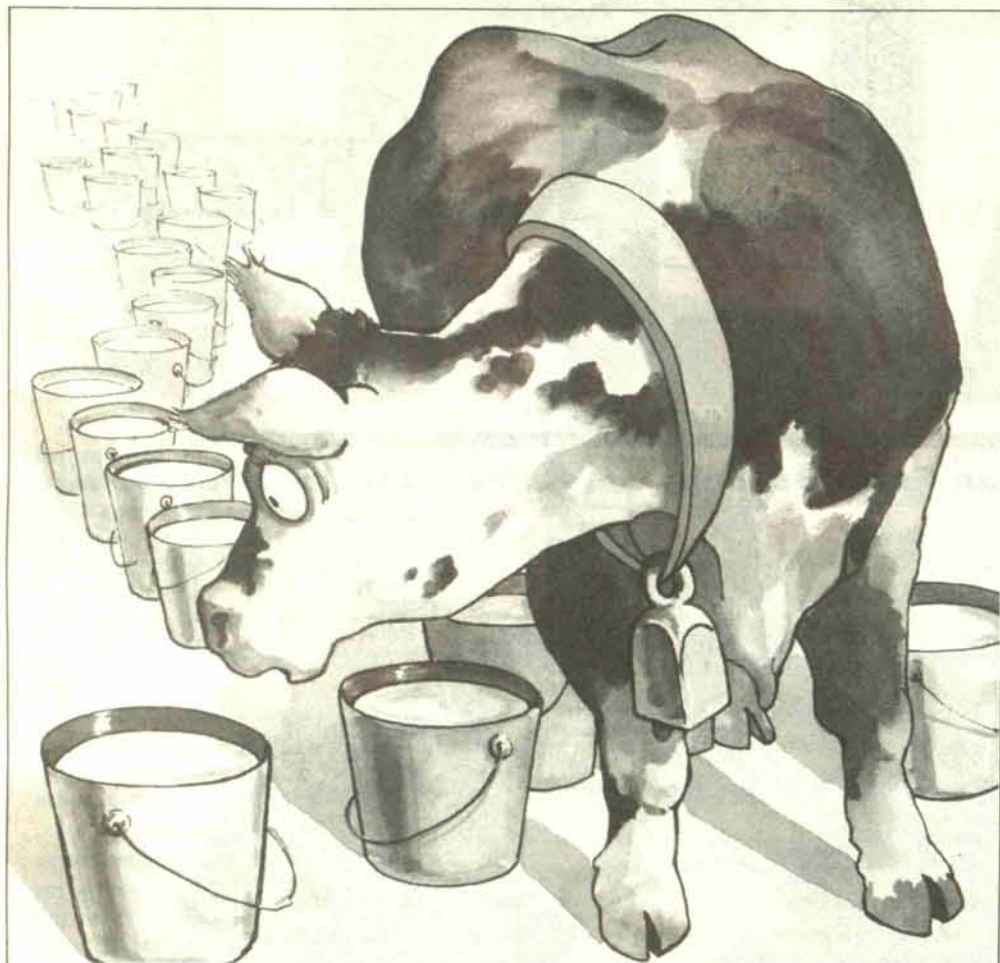
**T**hroughout the 20th century, new, safe, and effective agricultural technologies have provided the means for the safest, lowest-cost food supply in the world — here in the United States. Biotechnology products are just one of a long line of new products to maintain this enviable domestic and trade position. The Food and Drug Administration, through rational application of scientific standards, gives Americans confidence that such products are safe for public consumption by monitoring and approving new food technologies.

Continued next page. ....





# Lifes



## Keeping Kids Safe: A Parent's Responsibility

How can we help keep kids from being hurt or even killed in farm accidents? By understanding the stages of a child's growth and development and by providing careful supervision and training that's right for each stage, say the experts.

Here's a chart that describes those stages, the risks kids at each stage may take, and appropriate protective measures. How well does this chart describe the youngest children in your household?

Here, briefly, are the facts on BST according to the FDA:

There's no significant difference between milk from treated and untreated cows; testing the milk from treated and untreated cows cannot reveal which is which. BST is a natural hormone, produced by cows themselves. Years of study have shown that milk from treated cows is safe. BST taken by mouth has no biological effect in humans. It's digested like any other protein.

Higher producing cows generally have a higher incidence of mastitis than lower producing cows. Since BST increases production per cow, there is some increase in mastitis occurring in BST-treated cows. The incidence of mastitis also depends on proper sanitation and care of herds. A monitoring program is in place for detecting and managing any increase in mastitis. All milk is routinely checked for antibiotic residues, and dairy farmers are highly motivated to keep residues out of milk, since milk that fails the test cannot be sold and must be thrown out.

The milk from treated cows isn't different from other milk, so it is unnecessary and misleading to label it as such. It's all just milk. It would certainly be misleading to label any milk as "BST-free" or "hormone-free" since all milk contains BST and other hormones. Even the label "From cows not treated with BST" would have misleading implications, however, a company could state that its milk came from untreated herds if it also said that such milk offered no health advantages. A report to Congress from the Office of Technology Assessment adds that by law, all labeling claims must be verifiable. In this case, however, there's no way to tell one type of milk from the other.

The effective use of BST has nothing to do with the size of farms. The U.S. Department of Agriculture (USDA) conducted an economic analysis of the issue of small farms and BST. USDA concluded that BST use could prove profitable for almost all commercial dairy farms.

In addition, the Office of Technology Assessment (OTA) has asserted that "quality of management" on the dairy farm, not the size of the farm, will be the major factor affecting the magnitude of milk production response from BST. The relationship between management quality and gains realized is also observed for other technologies, such as artificial insemination. Facets that OTA says will affect quality of the overall management program, and therefore the effectiveness of BST, include the herd health program, milking practices, nutrition program and environmental conditions.

Age	Characteristics	Typical Risk
Toddler/Preschooler	<ul style="list-style-type: none"> <li>• Curious</li> <li>• Love to explore</li> <li>• Unable to see cause and effect</li> <li>• Gifted imitators</li> <li>• Illogical, "magic thinking"</li> </ul>	<ul style="list-style-type: none"> <li>• Searches for hidden bottle of chemicals if observes parent handling it</li> </ul>
School age (5-12)	<ul style="list-style-type: none"> <li>• Inconsistent use of logic</li> <li>• Wishes to appear competent</li> <li>• Wants social and peer acceptance</li> <li>• Greater physical and mental skills</li> </ul>	<ul style="list-style-type: none"> <li>• Starts combine to impress friends after observing adults doing it</li> </ul>
Adolescent (12-18)	<ul style="list-style-type: none"> <li>• Desire to experiment</li> <li>• Perception of "immortality"</li> <li>• Resistance to authority or supervision</li> <li>• Safe unsafe habits cemented</li> </ul>	<ul style="list-style-type: none"> <li>• Allows others to ride on tractor while doing field or garden chores</li> </ul>

## DON'T LET BACKACHES KEEP YOU AWAKE

Four in five people will suffer from back pain. If you get out of bed with an aching back, these backache prevention tips can help you feel better — and sleep better.

▪ **The three keys to a healthy back are:** stretching, exercise and a good mattress.

▪ **Strengthening, stretching and gentle aerobic exercises** (such as walking or swimming) are essential elements of a regular exercise routine to prevent back pain.

▪ **Watch your weight.** Extra pounds put extra stress on weak lower back and stomach muscles.

▪ **A good mattress** supports the back and allows it to rest and rejuvenate during sleep. Experts recommend

mattresses that offer superior support but aren't too hard to feel comfortable.

▪ **Studies have shown** that the best sleeping positions are on the back, or on the side with knees slightly bent.

▪ **During sleep,** the body and spine need proper support. Sleeping on a surface that does not allow the spine to maintain its natural "S" curve can result in strained back muscles and a tired back.

▪ **Good posture is important.** Maintain your natural "arch" while sitting or standing.





# Style



## Protective Measures

- Careful supervision
- Physical barriers such as locks and fences
- Adults can be role models by practicing only safe behaviors

- Consistent rules
- Discussion of safe behavior
- Education on avoiding hazards

- Open discussion of rules with fixed consequences for breaking them
- Gradual involvement with increasingly challenging farm work
- Careful supervision while performing potentially dangerous task

- **When lifting**, bend the legs and keep the back straight — don't twist.
- **Take breaks** during long periods of sitting — lower back support and movement are essential.
- **The Five Second Workout at Work:** 1) stand up, 2) shrug shoulders three times, 3) roll shoulders three times, 4) tuck chin three times, 5) clasp hands behind lower back and arch gently.

Source: Better Sleep Council

## Baby Talk ...

Despite the widely publicized risks to the developing fetus, only 23 percent of female smokers give up cigarettes when they learn they are pregnant, according to the National Center for Health Statistics. Another 38% smoke fewer cigarettes. Statistics show that low birth weight is the most common result of smoking during pregnancy.

One-third more births occur in the United States on Tuesdays than on Sundays. Overall there has been an increase in births on weekdays since 1980 because of the rising rate of Caesarean deliveries (which doctors are less likely to schedule on a weekend or holiday), as well as perhaps the rise in induced labor.

According to a seven year study by the University of Missouri at Columbia, women with low-risk pregnancies who had two ultrasound scans were compared with a group of women who did not have the scans. The study found that there was no difference in the rate of underweight babies, early deliveries or defects.

The findings challenge the effectiveness and necessity of ultrasound tests (sonograms) other than for specific medical reasons. The tests cost \$200 each time it is performed. If ultrasound screening were limited to women who are clearly at risk for birth complications, an estimated \$500 million could be saved each year.



The following questions and answers come from Sparrow Hospital's physician referral and information service called "NurseLine". They are timely and commonly asked questions.

### Q. Does the risk of heart disease increase after menopause?

**A.** Heart disease is a general term describing narrowing of the arteries that keep the heart alive. If one of these arteries becomes blocked, then a heart attack occurs. This means that some heart muscle dies. The amount of resultant muscle damage determines the severity of the heart attack and the future recovery prospects for the patient.

There are many factors that seem to increase the risk of heart disease and some that seem to decrease the chances of having heart disease. The factors that increase the risk are smoking, high blood cholesterol, high blood pressure, high blood sugar, being overweight, and genetics or having a family history of heart disease.

One of the factors that seems to be protective against heart disease is estrogen. Women produce estrogen until they reach 40-50 years of age, which is the average onset of menopause. During menopause, the naturally occurring estrogen decreases, thus causing most of the common side effects such as hot flashes, mild depression, thinning of bones, etc. The protective effect of estrogen also diminishes. When compared to men, women have about a ten year delay in developing heart disease. Therefore, after menopause, due to this decreased production of estrogen, the risk of heart disease increases.

### Q. Does taking aspirin prevent heart attacks?

**A.** Public interest in the use of aspirin to prevent heart attacks and strokes has steadily increased since 1985, when the United States Food and Drug Administration approved it for this use. This familiar drug may reduce the incidence of cardiovascular disease in high-risk patients by as much as 20 percent.

Aspirin helps prevent coronary disease and strokes primarily by interfering with the aggregation or "clumping" of blood components called platelets. Studies have shown that even one standard 300 mg. tablet per day will affect platelet aggregation. Larger doses do not increase the effectiveness of aspirin in preventing cardiovascular events. In fact, for many people, an 80 mg. children's aspirin is adequate in preventing platelet aggregation.

Taking larger doses also increases the likelihood of side effects. Most often, aspirin causes gastrointestinal problems such as nausea, diarrhea, or constipation. Gastrointestinal bleeding is a serious side effect of aspirin seen more commonly with doses larger than 300 mg. per day. These unwanted side effects may be reduced by using enteric-coated aspirin or taking the aspirin dose every other day.

Check with your physician before taking aspirin or any over-the-counter medication on a regular basis and, as always, keep medications out of the reach of children.

If you have health concerns, questions, or need a physician referral, call Sparrow Hospital's NurseLine, an information and Physician Referral Service at 1-800-968-3838.

The above questions and answers are for general information purposes only. If you have symptoms or health related questions, consult your physician.

## FREE PRESCRIPTION DRUGS

As every American knows, paying for pharmaceuticals can be an enormous burden, particularly for chronic diseases. Eager to prove that they aren't squeezing every penny they can from the ill and suffering, many drug companies have begun offering free drugs for patients whose doctors certify that they are in need. For some companies, that means anyone with an income under \$25,000. Immunex Corporation "will send a drug we manufacture to anyone who needs the drug and can't afford it," according to Michael Kleinberg, director of professional services.

The Pharmaceutical Manufacturers Association now has a hotline for physicians that provides information on the programs. Patients can urge their doctor to call the hotline (1-800-PMA-INFO), or can get an alphabetical listing of drugs available free by writing to the Senate Special Committee on Aging, Dirksen Senate Office Building, Room G-31, Washington, D.C. 20510, or by calling the committee at 202-224-5364.

Source: *New Choices*, October 1993



# STROKE FACTORS & PREVENTION

A number of stroke risk factors can't be changed: age (risk increases as people grow older), sex (men have a 30% higher risk), race (blacks have a 60% higher risk), diabetes, family history of stroke, personal history of stroke and asymptomatic carotid bruit (an abnormal sound in a neck artery, indicating cardiovascular disease).

However, many of the major risk factors for stroke can be controlled or eliminated by lifestyle changes and medical treatment.

**High Blood Pressure.** Stroke risk varies directly with blood pressure reading, making hypertension the strongest risk factor for stroke. Many people can lower their blood pressure or maintain it at an acceptable level through weight control, exercise and a diet that emphasizes moderate intake of fat, salt and alcohol. Others will need to take medication to keep blood pressure in check.

**Cigarette Smoking.** Chemicals in cigarette smoke increase blood pressure, lower the oxygen content of blood and promote clot formation.

**High Red Blood Cell Count.** As the number of red blood cells increases, the blood thickens and allows clots to form more easily. The condition can be treated with drugs that thin the blood.

**Transient Ischemic Attacks (TIAs).** These so-called mini-strokes occasionally precede a major stroke, but they also increase the risk for stroke within the next several years. Patients who have had a TIA often are treated with drugs that help prevent clot formation.

**Atrial Fibrillation.** In this heart rhythm disturbance, a rapid, inefficient heartbeat allows blood to pool and form clots, which can then travel to the brain. Treatment with blood thinners reduces the risk of clot formation.

Reprinted from the Lifetime Health Letter, Nov. 1993. Published by the University of Texas Health Science Center, Houston, TX.

Several forms of therapy have proven useful in lowering stroke risk, regardless of the type of risk factors a person might have. Aspirin can lower stroke risk by helping prevent clot formation and many physicians now routinely recommend the drug for at-risk patients. The prescription drug ticlopidine also inhibits clot formation and has proved superior to aspirin in some studies. For people whose carotid arteries are severely narrowed with fatty plaque, a surgical technique called carotid endarterectomy may be recommended to improve blood flow and reduce the risk of stroke.

## WARNING SIGNS OF STROKE

Early treatment offers the best hope for preventing death or severe disability from a stroke. Unfortunately the symptoms of stroke aren't widely known, and most stroke victims don't seek immediate treatment.

The major warning signs of a stroke are:

- Sudden weakness or numbness in one side of the face, an arm or a leg
  - Sudden dimness or loss of vision, particularly in just one eye.
  - Loss of speech or difficulty in talking or understanding speech.
  - Sudden, severe, unexplained headache.
  - Unexplained dizziness, unsteadiness or falls, especially in association with one or more of the other symptoms.
- Anyone who has one or more of these signs should be evaluated immediately by a physician.
- In about 10% of cases, a major stroke is preceded by a transient ischemic attack (TIA), or mini-stroke. The symptoms of a TIA are the same as those for a stroke, but usually last only a few minutes. Anyone who has experienced a TIA runs a high risk of having a major stroke within one to three years.

## RIGHT BRAIN DAMAGE

Paralyzed Right Side

Speech-Language Deficits

Behavioral Style Slow-Cautious

Memory Deficits

## LEFT BRAIN DAMAGE

Paralyzed Left Side

Spatial-Perceptual Deficits

Behavioral Style Quick-Impulsive

Memory Deficits



# MEDICAL FOCUS

## Is Alcohol a Problem for Someone you Love?

Someone you love may be harboring a secret that is robbing them of their health and healthy relationships. That secret is alcoholism.

Be aware that the following are subtle signs of a possible drinking problem:

**Drinks alone or in secret.**

**Doesn't remember conversations or commitments.**

**Makes a ritual of having drinks before, with or after dinner and becomes annoyed when this ritual is disturbed.**

**Loses interest in activities and hobbies that used to bring pleasure.**

**Becomes irritable as usual drinking time approaches, especially if alcohol isn't available.**

### Talking About the Problem

Some recovering alcoholics report that they sought help only after someone close to them voiced concern. They often credit intervention of family, friends or a caring physician for their recovery.

Intervention is a process that helps the alcoholic recognize and accept the need for help. Consider these suggestions for helping:

**Choose the right time to talk** — A good time is right after a drinking incident when the experience may be easily recalled. Another time is around birthdays or holidays when people often think about their own needs for change.

Don't try to talk to your friend or family member when they are intoxicated. You risk aggravating the situation and bringing on defensive responses.

**Be specific** — Bring up instances such as "When you canceled our plans..." rather than generalities like "You never keep your word."

**Don't blame or criticize** — Talk with the care and concern you feel, not in ways that make the person feel criticized or guilty.

**Use "I" messages** — Phrases such as "I noticed" or "I'm worried" keep blame out of the discussion.

**Address heartfelt issues** — Children, friends or even personal appearance may strike more of a chord of concern than worries over personal health.

### You Can Help

Once you recognize a drinking problem in a loved one or friend, regard it as serious and potentially life-threatening (particularly in older adults). That means intervene. Then get professional help.



## Thumb Area Farm Safety Day Camp for Thumb Area Youth Scheduled

Farm safety – especially for children – is the most important issue farm families face today. Each year, 300 children die from preventable farm injuries, and 24,000 more are seriously injured in ag-related accidents nationwide.

A Farm Safety Day Camp for kids ages 9-12 and an accompanying adult is being planned for each county in the tri-county area of, Huron, Sanilac and Tuscola. These day camps are returning by "popular demand" reports Geraldine Smith, agriculture safety specialist, Huron County Health Department. The Health Department is sponsoring these Farm Safety Day Camps as part of its "Farming Safely in the Thumb" program.

Each day-camp is being held at the respective county fairground and involves a day-long safety educational opportunity. Tuscola County's Day-Camp is scheduled Thursday, June 30; Huron County's is Thursday, July 7, and June 23 will be the date for Sanilac County.

The day-camps will feature educational safety stations where the youth can learn first-hand about farm machinery, electrical, animal, farm chemical, lawn mower, ATV and fire safety.

They will also receive instruction in emergency first aid, rescue breathing, choking intervention, how to report an emergency and emergency services. The safety stations will be taught by professionals from each particular subject area.

Many of the safety stations will provide hands-on experiences for the youth. The day begins with registration at which time the youth are organized into groups of 10 with a group leader. Each group will move from one safety station to another throughout the day.

Parents (or other adult) are invited to join their youth for the day. Those adults who are not able to attend all day are invited to return late in the afternoon to view a simulated accident and rescue.

There will be a fee of \$5 for each participant, which is to be paid when the enroll-

ment form is completed and returned to the Health Department prior to the camping day.

**Youth must pre-enroll by calling Geraldine Smith or Sandra Koglin at (517) 269-9721 or 1-800-833-8550. Only 50 youth will be enrolled at each day camp on a "first come, first served" basis.**

*Many area youth have received hands-on training in first aid and emergency response during previous safety day-camps, thanks to local professionals who volunteer to work various safety stations.*



## 77 Michigan Counties Now Pseudorabies Free

Michigan swine herds in 77 counties are free of the potentially fatal pseudorabies virus and all Michigan counties will be free of the disease by 1999, according to Dr. H. Michael Chaddock, state veterinarian and director of the Animal Industry Division, Michigan Department of Agriculture (MDA).

A designation of "split-stage" status for Michigan under the Pseudorabies Eradication Program means herd owners in 77 counties are no longer required to test herds annually for herd status at their own expense. It also means movement restrictions are relaxed, allowing for the movement of feeder pigs directly from a herd of origin without testing.

"Herd owners are to be commended for their diligence in monitoring the health of their swine and for compliance with Michigan's Pseudorabies and Swine Brucellosis Control and Eradication Act," said Dr. Gordon Guyer, MDA director. "Eliminating this terrible disease is vital for the continued growth of a strong and vital animal industry in our state. I am certain we'll achieve disease-free status before the new century begins."

Pseudorabies, also known as Aujeszky's Disease, is a herpes virus that invades an animal's body and attacks the central nervous system, eventually progressing to encephalitis (inflammation of the brain) and death. It usually affects swine but can affect other livestock. It poses no danger to humans. It is called Pseudorabies (false rabies) because its symptoms often mimic rabies.

Approximately 182 infected swine herds under quarantine remain in Ottawa, Allegan, Van Buren, St. Joseph, Cass and Van Buren counties. Owners in these counties must enter into a Pseudorabies Herd Agreement which contains a herd cleanup plan defining measures to be taken to eliminate the virus within 36 months. The herd owners in the affected counties must also continue to bear the expense of vaccination to control virus spread, management changes, necessary changes to facilities and for labor to accomplish these.

The U.S. Department of Agriculture and MDA cooperate to provide support for sampling of individuals and groups of swine, for laboratory testing of samples, and offer technical expertise in areas essential to the area herd cleanup effort. The National Pseudorabies Eradication Program is a ten-year plan that began in 1989.

## TAKE THE BITE OUT OF DENTAL CARE COSTS



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Member dental insurance is the affordable way to assure that you and your family receive the dental care services you require — even when sudden and costly needs arise.

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

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Phone \_\_\_\_\_

County \_\_\_\_\_



## 10 Ethanol Getting Raked Over the Coals in D.C.

The U.S. Senate Energy Committee held a hearing recently for the purpose of bashing ethanol and the Clinton administration's proposal that ethanol get a 30 percent share of the reformulated gasoline program. At the pro-oil company session, the Energy Department outlined the results of a study which says ethanol would be less effective than methanol, in cutting emissions and overall oil use.

A *Washington Post* editorial called the ethanol plan "perilously close to patronage for a special interest -- in this case, for the corn producers and the companies that make ethanol." As a result of EPA and Energy Department backtracking, it looks more likely the administration will phase in the ethanol provision, perhaps 15 percent a year over two years.

Meanwhile, the final rule on the renewable oxygenate proposal is moving through the top staff level at both the Environmental Protection Agency, and the USDA. It does appear that EPA is trying to galvanize support for an eventual phase-in of the 30 percent renewable oxygenate requirement

While Michigan farmers are busy planting corn, ethanol opponents are busy planting ideas of their own in Washington, D.C., based on hype and half-truths.



as opposed to the full implementation originally proposed by the Clinton administration last December.

In a recent letter to President Clinton, Michigan Gov. John Engler reiterated his support for the 30 percent Renewable Oxygenate Requirement for Reformulated

Gasoline, and encouraged its enactment as originally proposed by June of this year.

According to MFB Commodity Specialist Bob Boehm, farmers should see the proposed phase-in as a step in the wrong direction.

"It's important that farmers see phase-in as backtracking on the ethanol commitment," Boehm said. "It will give the oil industry additional time to fight the full implementation of the rule, which could seriously threaten ethanol's future role in alternative fuel programs."

### Keep Sending Those Seed Corn Tags and Letters to D.C.!

MFB Commodity Specialist Bob Boehm reports that the seed corn tag mail-in campaign is having an impact, but farmers need to keep sending them in along with letters urging the support for full and immediate implementation of the ethanol proposal in the renewable oxygenate program.

According to Boehm, it's more important than ever that farmers let the White House know of the continued strong grassroots support for ethanol. In case you misplaced the addresses from the April 15 issue of *Michigan Farm News*, here they are again:

**President Bill Clinton**  
c/o Mr. Marion Berry  
Assistant to the President of Agriculture  
U.S.D.A. Room 218 A  
14th and Independence Ave., S.W.  
Washington, D.C. 20250

**Mike Espy**  
Secretary of Agriculture  
U.S. Department of Agriculture  
14th and Independence Ave., S.W.  
Washington, D.C. 20250

**Representative:**  
U.S. House of Representatives  
House Office Building  
Washington, D.C. 20515

**Senator:**  
U.S. Senate  
Senate Office Building  
Washington, D.C. 20510

## Timber Industry Takes Clinton's Owl Plan to Court

The plan by which the Clinton administration hopes to balance interests of the spotted owl and logging in the Pacific Northwest is being challenged as illegal, according to a *Knight-Ridder News* report.

Lawsuits filed by an industry coalition says the Clinton plan violates at least six laws. Industry spokesmen say the purpose of the suits is not to block the plan, but to make the U.S. Forest Service and Bureau of Land Management comply with federal law.

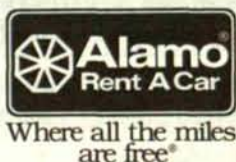
Mark Rey, vice president of the American Forest and Paper Association, said the group will live with whatever small amounts of logging will be allowed in the short-term under the administration plan, in hopes of having the plan overturned sometime in the next two or three years.

The administration plan offers 200 million board feet of lumber to be harvested in 1994 and very little increase until 1997. After that, the administration plan would allow 1.1 billion board feet of lumber to be taken from the protected habitat. The same land produced 5 billion board feet annually during the 1980s.

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# 11 Gallup Poll Says Environmental Sensitivity Makes Economic Sense to Farmers

A national Gallup poll reveals that farmers are changing the way they work with pest control products, not only because they are concerned about safety and environmental issues, but also because it makes good business sense.

Almost 60 percent of the farmers surveyed said they are doing things differently compared to three years ago, and they cite economics and personal responsibility as the main reasons. According to the 1994 Sandoz National Environmental Poll, these farmers are using safer pest control products, improving application methods and

using less product. The poll surveyed more than 1,000 farmers nationwide.

More than 50 percent of the farmers surveyed said their personal level of concern associated with pest control and the environment has increased over the past five years, and 80 percent said the general public's level of concern has increased as well.

"The poll indicates that farmers share the public's concerns for safety and environmental issues, but they also believe it's good business to continually improve their pest control practices," said Kurt Furger,

## Nearly All Right-to-Farm Cases Resolved Voluntarily

Over 99 percent of the 711 environmental-related complaints filed against Michigan farmers since 1989 have been resolved cooperatively and voluntarily, announced Dr. Gordon Guyer, director of the Michigan Department of Agriculture (MDA).

The complaints were resolved under the state's Right-to-Farm program which was designed to protect farmers from nuisance lawsuits brought by neighbors or others. The Right-to-Farm environmental complaint response program was established in June 1989 when MDA and the Michigan Department of Natural Resources (DNR) signed a Memorandum of Understanding, specifying MDA as the lead agency in resolving such complaints.

"To achieve a near 100 percent record on complaint resolution, speaks to the spirit of cooperation that exists in our rural communities as well as the determination for rural and suburban neighbors to live peacefully side-by-side," said Guyer. "This is also evidence of a real willingness on the part of Michigan's farmers to be full partners in protecting the environment."

Only six of the complaints made had to be transferred to the DNR for its standard pollution investigation and enforcement.

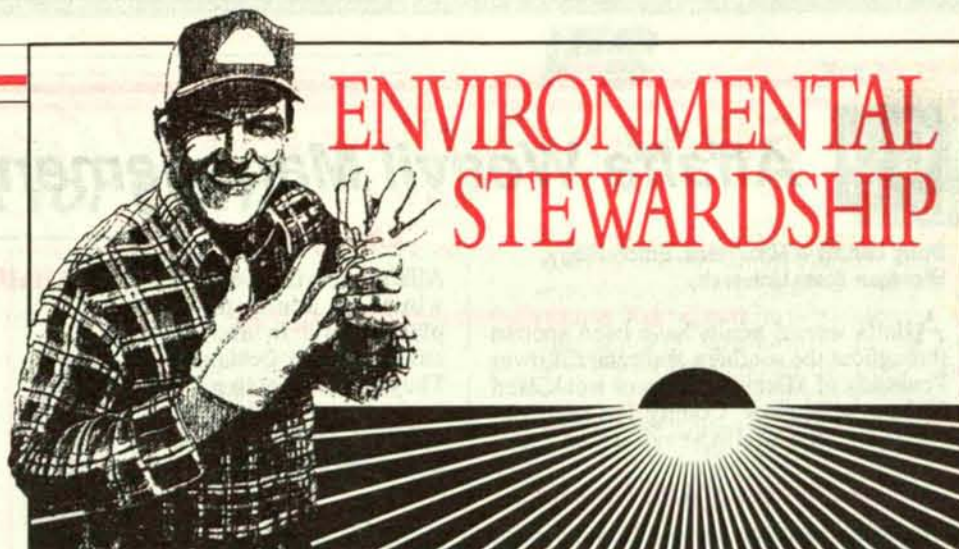
Under the program, farmers are recommended to follow "generally accepted agricultural and management practices" as they

relate to the use and management of manure, pesticides and nutrients. These practices, adopted by the Commission of Agriculture, are based on available technology and scientific research and promote environmental stewardship as well as maintain a person's right to farm.

While adherence to the practices doesn't act as a complete barrier to litigation, it does offer some protection against nuisance lawsuits. In addition, since the practices are referenced in several environmental statutes and permit policies, voluntary conformance to the Right-to-Farm practices and other conditions affords farms exemption status from certain permit policies and pollution liability.

Whether or not a producer chooses to follow the voluntary practices, a farmer still needs to comply with all state and federal environmental and agricultural laws. The judicial system of Michigan makes the final determination of what conditions may constitute a nuisance or pollution.

"We've achieved tremendous success with this program in a relatively short period of time," said Guyer. "MDA and the Commission of Agriculture are committed to updating the practices as technology warrants and to continue working closely with farmers and their neighbors in addressing concerns in a constructive and friendly fashion."



vice president of operations for Sandoz Agro, Inc. "They're doing the right things for all the right reasons."

More than 50 percent of the respondents said pest control products are never knowingly applied improperly, and only four percent said misapplication occurs frequently. More than 80 percent said the enforcement of penalties for misapplication is adequate, and that mandatory education and certification for users, easier-to-understand labels, and pesticides prescribed and applied only by licensed applicators, are considered the best solutions for preventing application.

More than 85 percent of the respondents said the safeguards in place are sufficient to ensure safety to the environment, the public, animals or wildlife and actual users of pest control products, and more than 60 percent said no additional regulations are needed. They said overwhelmingly that education is the best way to reduce the public's concern.

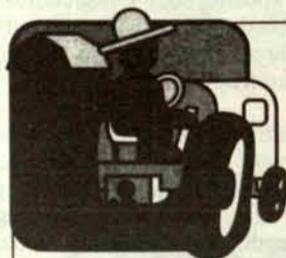
According to the poll, 40 percent of the respondents said they are familiar with integrated pest management, and about half of those said they have used such a program.

In addition, more than 80 percent said people in their industry always or sometimes wear protective clothing.

More than 50 percent of the farmers surveyed said people in their industry always or sometimes notify their neighbors when applying pest control products (a practice not always required by law), and more than 50 percent said it is a good idea.

"Respondents said the manufacturers and the government have primary responsibility to educate the public and fix environmental problems, but they see themselves as partners in the process," said Max Larsen, executive vice president of the Gallup Organization in Lincoln, Neb.

Sandoz Agro, Inc., produces and sells chemical and biological products to control pests in agricultural, horticultural, structural and animal health markets in North America. Sandoz Agro is a subsidiary of Sandoz Corporation, the U.S. division of Swiss-based Sandoz Ltd., a multinational producer of chemical, pharmaceutical, seed, nutrition, environmental and agricultural products.



## Estimated Protective Equipment Cost for a Hypothetical Farm

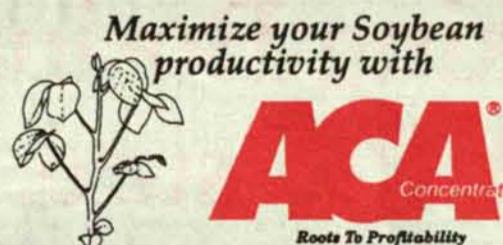
READ THE LABEL: It is a legal document

Assumptions for Hypothetical Farm:

- 2 Tractors
- 2 Sites
- 1 Farm,
- 1 Farmer plus
- 2 Workers/Handlers
- 2 to 4 Pick-up Trucks
- 1 or 2 Large Utility Trucks
- 1,200 to 1,500 acres spread over 10 to 12 quarter-section fields.

Item	Number Per Person	Cost Per Person	Number Per Site	Number Per Tractor	Number Per Farm	Cost Per Farm	Expected Life
Boots	1 pair	\$50.00	-	-	-	\$150.00	2 seasons
Tyvek Suit	4 pair	\$30.00	-	-	-	\$ 90.00	1 season
Nitrile Gloves	4 pair	\$10.00	-	-	-	\$ 30.00	1 season
Sweat Band	2	\$ 2.00	-	-	-	\$ 6.00	1 season
Goggles	2 pair	\$15.00	-	-	-	\$ 45.00	1 season
Safety Glasses	1 pair	\$ 5.00	-	-	-	\$ 15.00	1 season
Face Shields	1	\$15.00	-	-	-	\$ 45.00	1 season
Hat (1/Perm, 2 Disp.)	3	\$25.00	-	-	-	\$ 75.00	1 season
Disposable Respirator	2	\$46.00	-	-	-	\$138.00	2 seasons
Apron	2	\$ 5.00	-	-	-	\$ 15.00	1 season
Emergency Coveralls	1 pair	\$ 3.75	-	-	-	\$ 11.25	1 season
Eyewash Beltpack	2	\$46.00	-	-	-	\$138.00	2 seasons
Private Cert.	1	\$50.00	-	-	-	\$150.00	3 years
Certification Trip	1	\$50.00	-	-	-	\$150.00	1 per 3 years
Resp. Storage Bags	2	\$10.00	-	-	-	\$ 30.00	1 season
Field/Worksite Decontamination Kit	1	\$99.50	-	-	-	\$298.50	2 seasons
Respirator Cleaning Kit	-	-	-	-	1	\$ 50.00	1 season
Tractor Mount Decontamination Kit	-	-	-	1	-	\$238.00	2+ seasons
Emergency Spill Response Kit	-	-	1	-	-	\$480.00	Multi-year
Tractor A/C	-	-	-	-	2	\$400.00	1 season
Charcoal Filter	-	-	-	-	2	\$ 6.00	Multi-year
Storage Signs	-	-	-	-	12	\$ 48.00	1 season
Field Posting Signs	-	-	-	-	12	\$ 48.00	1 season
Posting Stakes	-	-	-	-	12	\$ 48.00	1 season
<b>TOTAL</b>		<b>\$462.25</b>				<b>\$2656.75</b>	

Note: These figures are estimates and may not reflect real costs. Some equipment exceeds that specified on the label but some labels may be more restrictive. Compiled by GLD Agricultural Consulting, Inc.



### Identifiable Performance Parameters on Soybeans

The following are frequently observed plant responses from soil and foliar applications of ACA on soybeans.

#### Visual Response

- Vigorous early plant growth
- More fibrous and extensive root system
- Fuller Canopy
- Larger diameter stem
- Heavier seed weight

#### Observation Timing (Stage of Growth)

- VE to V3 (Emergence to third trifoliate stage)
- Early - V1 to V5
- Late - R2 (full bloom)
- Beginning at V5 and on (ACA treated plants often fill the row sooner)
- R2 (full bloom)
- R8 (full maturity)

The identified performance parameters typically result in:

- Increased uptake of soil nutrients
- Increased utilization of sunlight in photosynthesis
- Increased uptake of soil moisture
- Improved standability and ease of harvest
- Higher yields

#### Yield Information Postemergence applications to Soybeans (1993)

- 13 total studies • 4.5 bushel per acre increase • 10.4% increase in yield
- Return on ACA investment of \$23.56 (1/2 pint/acre) or \$21.84 (2/3 pint/acre)
- 1/2 pint ACA per acre in-furrow [Soybeans at \$6.00/bushel x 4.5 bushel increase/acre = \$27.00 - ACA investment of \$3.44/acre (1/2 pint/acre) = \$23.56 R.O.I./acre]
- 2/3 pint ACA per acre broadcast [Soybeans at \$6.00/bushel x 4.5 bushel increase = \$27.00 - ACA investment of \$5.16/acre (2/3 pint/acre) = \$21.84 R.O.I./acre]

#### Application Techniques/Procedures

Test results have shown that ACA can be applied to the soil or foliage of soybeans. ACA can be injected in-furrow as a pure product or broadcast incorporated into the soil. The broadcast soil application can be in water, with a fertilizer solution, and/or with a soil applied herbicide. The incorporation or movement of ACA into the soil profile can be by tillage, rainfall, or irrigation. This will position the ACA near the developing root system of the plant.

Foliar applications should be made when the soybean plants are in the second (V2) to third (V3) trifoliate stage of development. This coincides to when most postemergence soybean herbicides are applied. It is presently not recommended that ACA be applied with any postemergence herbicide or insecticide until further testing has been completed.

#### Methods of Application

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

#### Other application methods:

- Soil applied broadcast with water as the carrier, with or without a herbicide
- To soybean foliage with water as the carrier
- Direct injection of undiluted ACA in-furrow

#### Foliar Applications

- Application can be made with liquid fertilizers as the carrier



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



## 12 Alfalfa Weevil Management Options

Doug Landis & Mike Haas, Entomology,  
Michigan State University

Alfalfa weevil adults have been spotted throughout the southern and central Lower Peninsula of Michigan this past week. Ned Birkey in Monroe County has also observed the first alfalfa weevil larvae.

### Description of Life Stages

Young larvae are cream to yellowish-green colored, legless and have a cylindrical, "wrinkled" body. As the larvae grow, they turn green and have a white stripe down the middle of the back. The head is shiny black. Full grown larvae are 1/4- to 3/8-inch long.

Clover leaf weevil larvae resemble alfalfa weevil larvae, but have a brown head and are much larger when mature.

Newly-emerged weevils are gray to light brown, about 3/16-inch long, and have a broad dark band down the middle of the back which darkens as they age. Their mouthparts are in the form of a long, slender "snout."

### Life Cycles

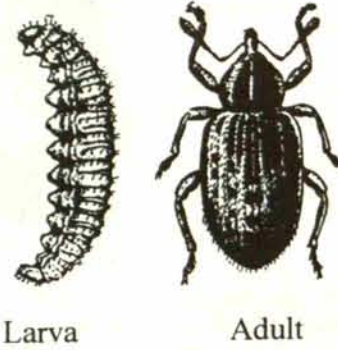
Alfalfa weevils overwinter as adults in plant debris in and around alfalfa fields. They become active on the first warm days of spring, feeding and laying eggs in alfalfa stems.

Larvae pass through four growth stages (instars), feeding for a period of three to four weeks. Pupation takes about 10 days, after which the adults emerge and feed before seeking a sheltered location to spend a summer hibernation period. Adult weevils become active again in the fall, and some egg laying may take place in the extreme southern counties of Michigan.

### Damage

Adults feed on stems and leaves of alfalfa, producing round or elongated holes in

### Alfalfa Weevil



Larva

Adult

leaves. Larvae feed on the leaf buds and terminal growing areas. Pinholes in upper leaves are an early indication of larval feeding.

Warm areas such as south facing slopes may show this type of damage first. Older larvae feed on expanded leaves, sometimes leaving only the veins which gives the leaves a skeletonized appearance.

Adults and larvae can also cause serious damage to alfalfa regrowth after the first cutting. This can be recognized as a failure of the alfalfa to "green up" due to weevils feeding on the developing crown buds.

### Detection

Routine inspections of fields are the best way to determine if weevils are threatening

the crop. Make observations early in the season (late April to early May) by looking for the adult insect and signs of feeding damage. Later, just prior to the bud stage, alfalfa should be monitored closely for the presence of larvae and their damage.

Survey five randomly-selected areas of the field, staying away from field edges and unusual areas not representative of the overall field. Check the tops and upper leaves of 20 plants for grubs and their damage. Continue to check every few days. A threshold has been reached if the field will not be cut for a week or more and 25 percent (25/100) or more of the plants have feeding damage and two to three grubs per stem.

### Management

**Biological Control.** Probably the greatest reduction in alfalfa weevil numbers is due to *Microctonus aethioides*, a small wasp which lays its eggs (oviposits) in the adult weevil. The egg hatches, and the wasp larva spends the winter inside the weevil adult. Weevils that carry wasp larvae become sterile and are eventually killed.

Two other wasps, *Bathyplectes anurus* and *B. Curculionis*, also oviposit in alfalfa weevil larvae. Infected larvae feed for a shorter time, resulting in less damage than from uninfected larvae. The wasp larva feeds on the weevil larva's internal organs, killing it. Predators of alfalfa weevil larvae include species of lady beetles, nabids and spiders. A fungal pathogen of alfalfa weevil larvae also reduces weevil populations.

**Cultural Control.** Timely cutting is the key to alfalfa weevil management. Cutting is recommended if the crop is in the early bud stage or beyond when a weevil threshold has been reached. Cutting at early to mid bud stage (flower buds) will reduce alfalfa weevil populations and prevent serious feeding damage. Cutting too early, before the bud stage, does little to reduce weevil numbers and may result in extensive weevil damage to the second crop. Timely cutting augments the biological control agents and provides direct control of weevil larvae.

**Chemical Control.** An insecticide application may be necessary if a threshold has been reached, and the field cannot be cut for a week or more. Special care should be taken to avoid exposing bees to insecticides if the field is in bloom. Hay that has already been badly damaged should be cut as soon as possible without spraying.

Check fields until the regrowth from the first cutting is well established (about six inches tall). An insecticide application may be necessary if the field is not regrowing and grubs are readily found feeding on the stubble. Stubble applications are recommended only if warranted for weevil control, not as a potato leafhopper prevention.

Reprinted from MSU's *CAT Alert, Field Crop Edition*.

### Free Woodlot Management Help Available

Southwestern Michigan landowners who need assistance developing management plans for their wooded acreage can find help right around the corner from an MSU Extension-trained master woodland manager. Twenty-six individuals who completed an intensive training program at MSU's Kellogg Biological Station (KBS) are available to answer questions and provide guidance on woodlot management issues.

They are trained in forest and wildlife ecology, tree planting, windbreak construction, timber marketing, recreation management and related topics. They also have access to the resources of MSU Extension natural resource experts.

To contact the master woodland manager in your area, call the KBS Extension office at (616) 671-2412.



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# Michigan's 1994 Soil Nitrate Test for Corn

M.L. Vitosh, Crop and Soil Sciences Department, MSU

**Q.** Why test soil for nitrates?

**A.** Nitrate testing of soil is an excellent and inexpensive way of evaluating the available nitrogen (N) status of your soil. MSU research and demonstration studies have shown that many farmers could reduce their N fertilizer application rate on corn without risk of reducing yields if they used the nitrate soil test.

Nitrate testing also helps to prevent over-use of N fertilizers which can reduce the potential for nitrate contamination of groundwater.

**Q.** What does the test measure?

**A.** The soil nitrate test measures only nitrate N. It does not measure ammonium N or organic N. If samples are taken in June, the ammonium and some of the organic N will have been converted to nitrate and will show up in the test.

**Q.** Why is June the best time to take soil samples?

**A.** Soil samples may be taken anytime; however, samples taken in June after the soil has warmed-up will usually contain the greatest amount of nitrate N. The June test measures both residual nitrate N and recently mineralized N from ammonium and organic matter.

Samples taken just prior to sidedress time can be used to the greatest advantage to determine the appropriate rate of sidedress N.

When sampling fields where anhydrous ammonia has been knifed in preplant, you will need to double the number of sub-sample cores to avoid problems associated with sampling N fertilizer bands. If the soil test in June indicates more than 25 p.p.m., no additional N is needed. Soil test levels in excess of 40 p.p.m. at this time indicate excess soil N. Soil test levels in excess of 15 p.p.m. at harvest indicate excess soil N.

Growers who have excess soil N in June or at harvest time should consider reducing next year's fertilizer rate or use the presidedress test to determine the appropriate N rate.

**Q.** What fields should be sampled?

**A.** Sample all fields where corn is to be planted. Manured fields and legume fields sampled in June will likely contain the most nitrate.

Sampling these fields early, however, will not result in the maximum N credit that should be taken because ammonium N and easily decomposed organic N will not be measured by the test. See Extension Bulletin E-2344 and E-550A for determining the appropriate N credit from manure and legumes if samples are taken in early spring.

Other fields that show the most nitrate N are fields with fine textured soils (i.e., loam, clay loam and clay) that were heavily fertilized with N the previous year. Sandy soils, even though heavily fertilized the previous year, may not show much N carryover.

**Q.** What's the best way to take soil samples?

**A.** Each sample should be a composite of 15-20 soil cores taken from a uniform field no larger than 20 acres. Use a soil sampling tube or spade. Take each core to a depth of 10-12 inches. Place the 15-20 cores in a clean pail and mix thoroughly. Save one quart of the sample for drying.

**Q.** How should soil samples be handled?

**A.** Air dry the sample immediately in a warm room. Placing the sample near a hot air vent or space heater will speed up the drying process. Do not hold wet samples in a plastic bag for any length of time. Microbial action in wet samples can significantly change the nitrate test results.

**Q.** Where can I get samples analyzed?

**A.** Dry soil samples may be mailed to the MSU Soil Testing Laboratory, East Lansing, MI 48824. If the samples are still moist, do not put them in the mail. Moist samples should be transported directly to the county Extension office for drying or to the MSU laboratory.

## Nitrogen Recommendations for Corn

The following table gives N recommendations for corn at four yield goal levels and seven soil nitrate test levels. The amount of N credit given is obtained by multiplying the concentration (p.p.m.) of nitrate in the surface soil sample by a factor of six.

Soil Nitrate ppm	Nitrogen Credit lb/A	Yield Goal - bu/A			
		100	120	140	160
0	0	110	140	160	190
5	30	80	110	130	160
10	60	50	80	100	130
15	90	20	50	70	100
20	120	0	20	40	70
25	150	0	0	10	40
30	180	0	0	0	10

**EXAMPLE:** If the test shows 10 p.p.m. of nitrate in the soil sample, the estimated N credit is 60 lb./A. Reading across in the table, we obtain the adjusted N recommendation of 100 lb. N/A for 140 bu./A yield goal.

should represent no more than 20 acres. Assuming it costs \$5 to take the sample, the total cost is \$10 per 20 acres or 50 cents per acre.

Reducing your N fertilizer rate by 5 lbs. per acre on 20 acres will more than cover the cost of the test. Results from research and on-farm demonstration studies over the past four years indicate that nitrogen adjustments based on the test would return more than \$5 per acre.

## Economics of Nitrate Testing

The cost of soil nitrate analysis by Michigan State University is \$5 per sample. Each sample

## Maximize your Corn productivity with



Roots To Profitability

### ACA on Corn

Since its introduction, ACA has demonstrated its ability to enhance plant vigor and help the plant overcome environmental stress during plant development. Seed tolerance studies have shown ACA to be completely safe to germinating corn seedlings when placed in direct contact with the corn seed in-furrow.

### Identifiable Performance Parameters on Corn

The following are frequently observed plant responses from soil applications of ACA on corn.

#### Visual Response

- Vigorous early plant growth.
- More fibrous and extensive root system
- Wider, darker green leaves (ACA-treated plants often fill the row sooner)
- Larger diameter stalk
- Taller plant (ACA-treated plants often tassel sooner)
- Heavier ear and kernel weight
- Grain dries down quicker

#### Observation Timing<sup>1</sup> (Stage of Growth)

- VE to V3
- Early-V1 to V5
- Late-10 days after silking
- V12 to V17
- V12 to maturity
- V12 to tasseling
- Maturity (Harvest)
- Maturity (Harvest)

<sup>1</sup>The staging of development described above is adapted from "How a Corn Plant Develops," Special Report No. 48, Iowa State University. V represents a leaf stage on corn where the leaf has a fully expanded leaf collar. V1 represents a corn plant with one leaf with fully expanded collar.

#### The identified performance parameters typically result in:

- Increased uptake of soil nutrients
- Increased utilization of sunlight in photosynthesis
- Improved standability and ease of harvest
- Reduced grain moisture at harvest
- Increased uptake of soil moisture
- Reduced leaf rolling during moisture stress
- Higher yields and/or test weight

#### Yield Information Field Corn (1993)

- 37 total studies
- 6.9 bushel per acre increase
- 5.8% increase in yield
- Return on ACA investment of \$12.09 (1/2 pint/acre) or \$10.37 (2/3 pint/acre)
- 1/2 pint ACA per acre in-furrow [Corn at \$2.25/bushel x 6.9 bushel increase/acre = \$15.53 - ACA investment of \$3.44/acre (1/2 pint/acre) = \$12.09 R.O.I./acre]
- 2/3 pint ACA per acre broadcast [Corn at \$2.25/bushel x 6.9 bushel increase/acre = \$15.53 - ACA investment of \$5.16/acre (2/3 pint/acre) = \$10.37 R.O.I./acre]

#### Application Techniques/Procedures

Test results have shown that ACA works best injected as a pure product in-furrow, or when the fertilizer that contains ACA is either injected or incorporated into the soil prior to, at, or soon after planting. The incorporation of movement of ACA into the soil profile can be by tillage, rainfall, or irrigation. This positions the ACA near the developing root system of the plant.

#### Methods of Application

- ACA mixes easily with and fits into the following fertilizer programs:
- Anhydrous ammonia
- Nitrogen solutions
- Mixed liquid starter fertilizers
- Dry blended broadcast or starter fertilizers
- Soil applied (weed & feed herbicide/fertilizer solutions or dry)

#### Other application methods:

- Soil applied broadcast with water as the carrier, with or without a herbicide
- Direct injection of undiluted ACA in-furrow

#### Application Rates

For in-furrow injection or banded (2" to side and 2" down), apply ACA at 5.33 to 8 fluid ounces (1/3 to 1/2 pint) per acre. Field studies of band or in-furrow applications have shown more consistent results at the 1/2 pint per acre rate. The rate for broadcast application is 10.66 fluid ounces (2/3 pint) per acre.

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# 14 - Michigan Farm News Classifieds -

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**01 Farm Machinery**

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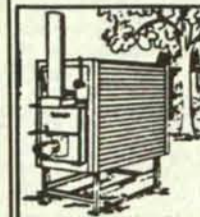
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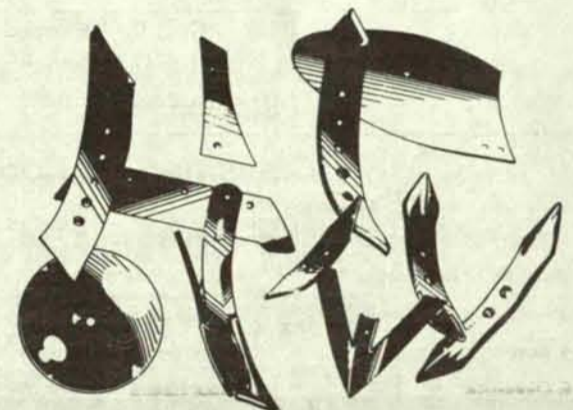
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# 16 Considering Round Bale Storage Options

By: Deb Laurell

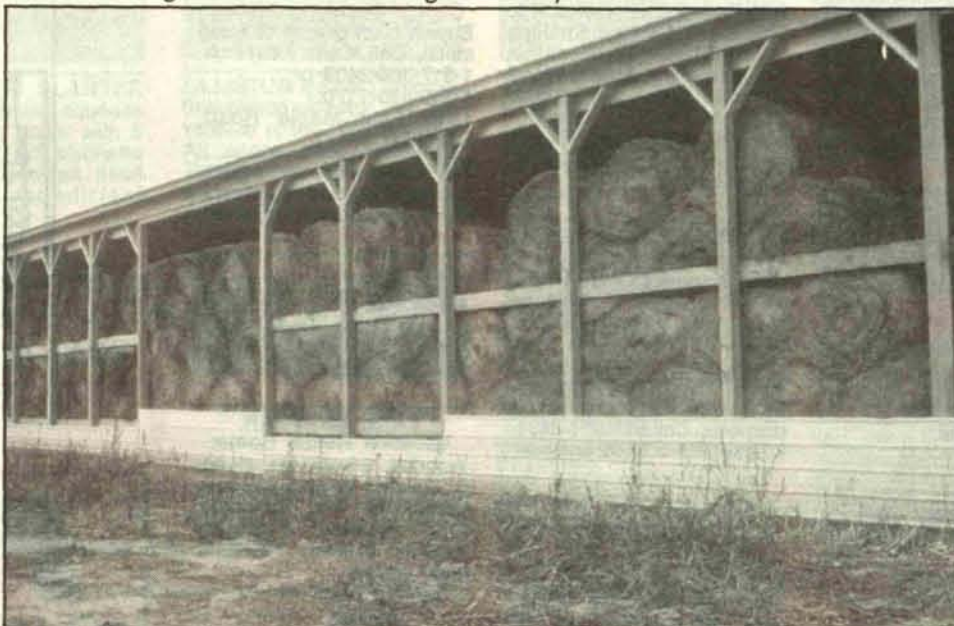
Are you looking for ways to improve your storage methods and feeding system of round bales, while reducing loss? If so, two recent Michigan State University studies, utilizing the dairy forage system model, may be of use to you.

Thanks to reduced time and labor requirements for harvesting and handling compared to small rectangular bales, the use of round bales has increased significantly over the past several years. However, storage and feeding losses can be high unless the bales are protected from the weather.

According to Dr. Tim Harrigan at Michigan State University, there are several methods of storing round bales which offer a range of protection, with the primary advantage being increased dry matter recovery. "Studies show shed storage and plastic wrap provide a higher economic return than an unprotected, outside storage method," explains Harrigan.

Methods of storage include: elevated sheds, tarp-covered stacks, plastic wrap, uncov-

Dry matter losses can be reduced to as little as 6 percent with inside storage, while outside storage losses can be as high as 16.5 percent



ered; and uncovered, stored directly on the ground. Studies conducted by Harrigan reveal dry matter losses of 6 percent for inside

storage; 9.6 percent for plastic wrapped bales and 16.5 percent for unprotected bales, with all bales being elevated.

According to Harrigan, the factors that have the greatest impact on bale loss are the weather, length of storage and the storage method. Options for outside storage include placement of bales on the ground without covers, elevated without covers and elevated with covers. Outside storage options preserve the center of the bale similar to shed storage.

However, bales stored outside experience a much greater loss in the outer eight to ten inches of the bale since it's exposed to rain and damp soil. Increased moisture leads to increased microbial activity and greater loss, explains Harrigan.

"A plastic wrap around the circumference of the bale greatly reduces moisture accumulation, particularly when the bales are elevated off the soil," said Harrigan. "Round bales stored outside and elevated on tires, pallets, poles or a course stone base have typically suffered lower dry matter loss during storage than bales stored outside in direct contact with the ground."

In addition to environmental impacts on round bale storage and feeding losses and costs, bale diameter is also a key player impacting losses, explains Harrigan. Because almost all the weather losses occurs in the outer shell of the bale, losses are higher in smaller diameter bales.

## Considering the Costs of Storage

"When farmers choose a round bale hay storage system, they need to consider both storage losses and costs," said Harrigan.

Shed storage offers the most protection but the initial costs are high. Other options offering less protection may have a lower starting cost, but other costs such as tarp and plastic replacement may be higher. Shed storage is usually justified if four or five foot bales are being stored. "Storing uncovered bales off the ground is always well justified," explains Harrigan.

According to Harrigan, research reveals the value of hay protection during storage is influenced by the amount of hay used in the ration. As more hay is fed, the impact poor quality has on animal performance increases. "Feeding loss (refusal or waste) is influenced by storage and feeding method," he said.

Studies reveal the value of hay protection during storage was influenced by the feeding method being used. Feeding hay free-choice was usually more profitable than chopping and feeding hay. Chopping hay in a tub grinder did reduce feeding losses and improve profitability the most, when used with storage systems offering the least protection.

Annual Costs for Five Round Bale Storage Options			
Bale diameter, ft.	4	5	6
Bale weight, lbs.	600	900	1,300
Tons stored	100	280	690
Annual Storage Costs (\$/ton)			
STORAGE METHOD			
<b>Plastic Wrap (baler)</b>			
Material	9.60	7.60	6.30
Machinery	2.10	.80	.60
<b>Shed</b>			
Labor	1.60	1.10	.90
Material	9.10	8.00	7.30
<b>Covered Stack</b>			
Labor	3.10	2.30	1.90
Material	4.30	3.30	2.60
Machinery	2.00	.90	.30
<b>Uncovered, Elevated</b>			
Material	3.00	2.30	1.90
<b>Uncovered, Ground</b>			
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