# NAFTA: Here's What the Opponents Aren't Telling You!

Michigan sugar farmers and MFB Board members toured Mexico's sugar producing region last January, to gauge that nation's ability to impact U.S. sugar producers under NAFTA. They witnessed Mexican sugar cane harvest, both mechanically and by hand.

"NAFTA will permit unsafe, polluting, and overweight trucks with unlicensed drivers to enter the U.S."

NAFTA opponents claim:

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What they're not telling you: The agreement contains a transportation section that will, for the first time, allow U.S. trucks and railroads access to the Mexican market on terms equal to those provided to Mexican vehicles in the U.S. After 3 years, U.S. trucks will be allowed to travel within the border states of Mexico, a right Mexico already enjoys in U.S. border states. In 6 years, trucks from both countries may be driven into the interior of the two countries. Transportation standards will be harmonized at the highest common denominator over the same period (including licensing of trucks and drivers).

In the meantime, all foreign trucks and drivers must meet all U.S. standards. Mexico has already adopted a commercial drivers license, a computerized CDL records system, has joined the Commercial Vehicle Safety Alliance (CVSA), and has agreed to adopt the North American

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Vehicle Inspection Standards Program. U.S. enforcement officers will conduct the same stringent driver and vehicle inspections on Mexican and Canadian carriers as are currently conducted on U.S. carriers.

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Diesel fuel in Mexico is quite clean. It meets all U.S. pollution standards except for a slightly less strict sulfur limit. This isn't a significant problem for U.S. air pollution, but it could cause problems for emission equipment in U.S. trucks traveling in Mexico. This discrepancy is being addressed in bilateral talks. Finally, nothing in the NAFTA prevents states from setting their own transportation regulations.

#### NAFTA opponents claim:

"Mexican farmers can out-compete U.S. farmers because of the low wage rates in Mexico."

> Continued ... see NAFTA page 15

### Ethanol Powered Car Performs Well in Indy Test Drive

Two-time Indy 500 winner Gordon Johncock has proven, during a test run at the Indianapolis Motor Speedway, that ethanol blended racing fuel can perform in Indy Car competition.

Johncock, retired from active racing since 1985, is now a corn and beef farmer near Hastings Mich., farming 200 acres and raising 125 head of cattle. He's seeking approval from the Indy Car sanctioning bodies to run ethanol blended racing fuel at all races during the 1994 season.

According to Johncock, the purpose of the test was to prove the ability of ethanolblended fuels to perform in high compression, high performance Indy-type racing engines. He feels strongly about improving the profitability of farming by developing new, alternative uses for farm products.

"As a farmer, I'd like to be able to run on fuel made from my own harvest," said Johncock. "Racing has been good to me, and the popularity of the sport is growing. I thought, why not use racing to promote America's farms and their products?"

The idea of seeking approval of ethanol blended fuel came to Johncock as he The test run, conducted in July, was aimed at proving the ability of ethanol blended racing fuel to reduce harmful emissions, without sacrificing performance. The ethanol blend, utilized in the test, was manufactured by Zecol Racing Fuel, Inc., which has seen tremendous success across the country in sprint car, stock car, and drag racing events of all kinds.

Before the test, Johncock took practice laps in the 1992 Lola/Buick using the current fuel standard, methanol. After a short warm-up, Johncock turned in a couple of hot laps at around 210 m.p.h. The methanol remaining in the tank was then drained and replaced with ethanol-blended racing fuel. Without any modifications to the engines, Johncock still posted speeds in excess of 210 m.p.h.

"The car ran great! There was absolutely no difference," said Johncock shortly after climbing out of the car provided by

Ethanol will be spotlighted through two-time Indy winner Gordon Johncock's efforts to field "The Spirit of the American Farmer" in the 1994 INDY 500. Below, Johncock puts the 1992 Lola/Buick Indy car through its paces at Indianapolis. Photo: Ron McQueeney, IMS

Dick Simon Racing. "The car performed just as well with the ethanol as it did with the straight methanol."

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Dick Simon Racing has worked with Johncock on this endeavor for more than a year. According to Dick Simon, their combined diligence should pay big dividends. "It's the right thing to do," said Simon. "It improves the environment, helps America's farmers, and provides performance benefits to racing. I like to see win-win situations like that."

Great Lakes Hybrids, Inc., America's fastest growing agricultural seed company, based in Ovid, will be a sponsor of Johncock in his effort to field the all-agriculture, ethanol powered Indy car at the 1994 Indianapolis 500. With any luck at all and if the few remaining technical questions can be dealt with, Johncock's "Spirit of the American Farmer" will become a reality.



A Publication of Michigan Farm Bureau P.O. Box 30960, 7373 W. Saginaw Hwy., Lansing, MI 48909 developed his idea of an all-agriculture sponsorship for his twenty-fifth outing at Indianapolis.

Although alcohol fuels have been used at Indianapolis Motor Speedway for many years, the rule book requires the alcohol to be methanol, which is made from petroleum products. But ethanol, made from corn, has very little experience in the "greatest spectacle in racing." Johncock hopes to change all of that.

Earlier this year, Johncock sought an exemption to run the fuel for the 1993 "500" but was told that using the ethanol blend would give him an unfair advantage. "I was told that I could go two more laps than anyone else on our fuel allotment because ethanol would improve our fuel mileage," he said. "That was considered too much of an advantage for us."



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# NAFTA -**Consider the** Facts, Not the Political Propaganda of a Few

Over the years, one of the things I've admired most about the way our Farm Bureau organization operates is that our activities and policies are based on logic and sound reasoning rather than just wishful thinking. Farm Bureau, through our policy development process, does more than any other organization in existence to make sure that the facts on a controversial issue are laid out on the table. Then, before a policy is approved, all the angles are examined, all the implications are considered and all the possible impacts are discussed.

In order to gather information about the impact on agriculture of the North American Free Trade Agreement (NAFTA), a number of Michigan farmers and myself made two trips to Mexico last year. One of the trips included American Farm Bureau Federation President Dean Kleckner and other national agricultural leaders. The other visit included representatives of the Michigan sugar industry.

Being on the scene and talking to Mexican farmers gives uniquely valuable and accurate insights into what NAFTA really means. For example, I think it's clear that U.S. fears of losing jobs to cheap labor in Mexico are overblown. Wages may be low in Mexico, but so is productivity. By and large, American workers are more productive and more valuable to an employer.

Likewise, Mexico does not enjoy the natural resources that give us competitive advantages in many industries. Transportation and technology also are in our favor. Mexico's population is growing at a tremendous rate. And thanks to recent free-market reforms, so is their economy. We saw great demand for imported food products, and if we don't meet that demand, someone else will. NAFTA obstructionists ignore the tremendous risks we face if we reject this historic agreement.

A failed NAFTA will create enormous problems for our nation and for Mexico -- as well as for U.S. farmers. If we turn our backs on NAFTA and reject this powerful new trading relationship in our own hemisphere, we will forego billions in additional farm exports.

NAFTA guarantees that U.S. farmers will continue to benefit from recent export gains to Mexico -- now our third largest market. If NAFTA is rejected, it won't be long before Michigan farmers are disgustedly asking why such a large market was sacrificed to European or South American farmers.

Farm Bureau's NAFTA policy was extensively discussed at the Michigan Farm Bureau and American Farm Bureau annual meetings. The decision to support NAFTA is based on sound, factual study and research. Don't believe the lies about NAFTA that are being spread by an obviously desperate political source who's beholden to special interests. I urge you to trust the results of Farm Bureau's policy development process, a process that has served this organization and Michigan agriculture very well indeed for 75 years.

Jack Laurie

Jack Laurie, President Michigan Farm Bureau

### Elton R. Smith Chair in Ag Economics Filled at MSU

Sandra S. Batie, professor of agricultural economics at Virginia Polytechnic Institute and State University, has been selected as the first person to hold the Elton R. Smith Endowed Chair in Food and Agricultural Policy at Michigan State University. Her appointment is effective Sept. 1.

"Batie was selected as a result of an international search," said Fred L. Poston, dean of the MSU College of Agriculture and Natural



## In Brief...

#### Corps Unsure of River Reopening

Army Corps of Engineers officials can't peg a date to reopen rivers throughout the Midwest. Uncertainty as to what lies below the waterline is contributing to the delay. "The normal channels may not even be there anymore," said Wally Feld of the Corps of Engineers.

Portions of the Mississippi, Missouri and Illinois rivers remain closed, according to an Associated Press report. The Mississippi River has been opened to traffic north of Lock and Dam number 19 at Keokuk, Iowa, but will remain closed below that point for an indefinite period. The rivers' closings have stranded and docked around 5,000 cargo-laden river barges. Barge operators estimate they lose \$3 million each day the rivers remain closed.

#### Now. How About the Cuts?

Now that Clinton's deficit reduction package has been approved with no guarantees for federal spending restraint and cuts, several congressmen are drafting letters asking for a special congressional budget-cutting session. The idea originated in the Senate with Bob Kerrey (D-Neb.) and was picked up in the House by Rep. Robert Andrews (D-N.J).

Andrews said that more than 230 House members, including about 75 Democrats, had signed a letter to House Speaker Tom Foley asking for the special session. "We now have a majority of members of the House on record saying we want to do this," the New Jersey Democrat said. "That fact alone should convince the House leadership to do this. Of all the partisanship we've seen in Washington, here's the first thing that has some honest-to-goodness bipartisan support.'

#### Labels Ordered by Mid-October

USDA officials have ordered all raw or partially cooked meat and poultry be labeled with safe handling instructions after Oct. 15. Labeling of meat and poultry products sold in the U.S. was prompted by an E. coli bacteria outbreak in the Western part of the nation last January, at a fast-food chain, according to an Associated Press report.

The move to label products also follows the settlement of a lawsuit filed by Jeremy Rifkin's group "Beyond Beef." Beyond Beef is still not satisfied with label wording that recommends proper cooking and safe internal meat temperatures.

#### Study: Pesticides Still Impact Farm Workers

A new study just released by the University of California/Berkeley is claiming farmerworkers are afforded enough protection from pesticides. The report stated that more than 1,000 farm workers are still sickened annually by pesticides, despite warnings by social groups about the use and exposure to the chemicals.

"There seems to be more concern about the fears of pesticide residues on food than on the health of farm workers exposed to these chemicals in the field," said James Robinson, the study's co-author and a UC/Berkeley public policy professor. In addition to stringent regulations, the researchers said they would like to see a surtax placed on products raised with the use of chemical pesticides.

#### Pork Campaign Paying Off

An advertising campaign launched last year to extol the virtues of pork is paying dividends, according to officials with the National Pork Board. Since the "Pork -- The Other White Meat" campaign was launched, consumer attitudes toward pork have improved and awareness of the campaign has risen from 14 percent to 78 percent.

Three in four pork producers say they believe the campaign has helped them personally. The ad has been funded by a pork checkoff program started seven years ago. Through the checkoff, producers pay 35 cents from every \$100 of stock they sell at market.

#### **Comments Sought on Soybean Promotion**

The Agriculture Department is seeking public comment on two reporting changes in its national soybean promotional program. The first change eliminates bi-weekly reports of commodity assessments from soybean buyers. The other eliminates the requirement for forms certifying that a seller is not also a producer.

The changes were designed by the Agricultural Marketing Service to reduce paperwork and recordkeeping costs. Comments should be sent to: Marketing Programs Branch, Livestock and Seed Division, USDA-AMS, Room 2624-S, P.O. Box 96456, Washington, D.C. 20090-6456.

#### Michigan July Milk Production Up

Resources. "Her credentials are outstanding She's an accomplished researcher, teacher, policy consultant, author and speaker.

Batie received her bachelor's degree in economics from the University of Washington and her master's and doctoral degrees in agricultural economics at Oregon State University.

An economic policy analyst who specializes in natural resources and rural development policy issues, especially as they affect the future of Michigan and U.S. agriculture, Batie was president of the American Agricultural Economics Association (AAEA) during 1989-90 and served as an AAEA director from 1984 to 1987.

The Elton R. Smith endowed chair was established in 1986 as a joint venture between the MSU Department of Agricultural Economics and Michigan Farm Bureau to honor the contributions of Elton R. Smith, former president of Michigan Farm Bureau and vice president of the American Farm Bureau Federation.

We at Farm Bureau are delighted not only to realize our dream with the filling of the Elton R. Smith Chair, but we are especially pleased that Sandra Batie was selected as the first person to hold the chair. She has many of the qualities of leadership and vision that Elton Smith had. We are looking forward to a long and productive working relationship with her," said MFB President Jack Laurie.

Batie will conduct research on food and agricultural policies; provide policy education leadership for undergraduate, graduate and Extension programs; and conduct policy research and education efforts across the department and the university, as well as with farmers, agricultural organizations, governmental units, consumer groups and organizations in the private and public sectors.

Dairy herds in Michigan produced 469 million pounds of milk during July, up 3 million pounds from a year ago, according to the Michigan Agricultural Statistics Service. Milk per cow averaged 1,380 pounds, increasing 10 pounds from a year ago. The Michigan dairy herd was estimated at 340,000 head, unchanged from July 1992. Milk in the 21 major states totaled 11 billion pounds, up 1 percent from production in these same states in July 1992. Production per cow averaged 1,351 pounds for July, 29 pounds above July 1992.

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### Federal Budget Reconciliation – What it Means to Your Budget

Congress has approved the budget proposed by President Clinton designed to reduce the federal deficit and stimulate economic growth. The plan increases taxes \$241 billion, makes proposed cuts of \$255 billion in spending over 5 years and increases spending in some areas. The U.S. House approved the plan by a two - vote margin and the U.S. Senate approved it by a one - vote margin. Michigan's congressional delegation voted along political party lines with all the Democrats supporting the plan and all the Republicans opposing it.

Among the general provisions in the bill of interest to agriculture are the following:

- The gasoline/diesel fuel tax is increased 4.3 cents per gallon. Gas and fuel used off the road will continue to be exempt.
- The proposed tax on fuel used by barges which move considerable grain and would have caused lower grain prices to farmers was eliminated.
- The 25 percent health insurance deduction which self-employed persons may claim was reinstated retroactive to July 10, 1992 and expiring Dec. 31, 1993.

 The top estate and gift tax rates were increased to 53 percent and 55 percent.

In addition to the general provisions noted above, the bill cuts \$2.9 billion in agriculture spending over 5 years. Following are the cuts of interest to Michigan agriculture:

- Removes the authority of the Secretary of Agriculture to waive minimum Acreage Reduction Program (ARP) levels.
- Reduces the 0/92 program for wheat and feed grains to 0/85. The existing 0/92 program would be retained in the event of prevented planting or failed acreage and for minor oilseeds or other alternative crops planted on permitted acres.
- Readjusts the purchase prices under the milk price support program for butter at no more than 65 cents per pound and nonfat dry milk at no less than \$1.034 per pound. The minimum milk price support remains unchanged at \$10.10 per hundredweight.
- The current assessment on milk would be continued into 1996 and then lowered to 10 cents per hundredweight.
- · Delays the sale of bovine somatotropin

• Requires soybean and oilseed producers to settle all outstanding CCC soybean and oilseed loans by Sept. 30 of each year.

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ISSUES

- Makes the honey program operate at no net cost to the federal government by lowering the minimum honey price support level from 53.8 cents per pound to 47 cents by the 1998 crop year. The marketing assessment will be eliminated beginning in crop year 1994.
- Lowers the maximum annual payment a honey producer may receive from the current \$150,000, to \$125,000 in the 1994 marketing year, \$100,000 in 1995, \$75,000 in 1996, and \$50,000 in 1997 and thereafter.
- Lowers the maximum annual incentive payments a wool or mohair producer may receive from the current \$150,000, to \$125,000 in the 1994 marketing year, \$100,000 in 1995, \$75,000 in 1996 and \$50,000 in 1997 and thereafter. USDA will no longer be allowed to deduct marketing charges in determining net sales proceeds for shorn wool and shorn mohair. The wool and mohair marketing assessment will be eliminated beginning with the 1993 marketing year.
- Reduces the maximum Market Promotion Program (MPP) funding from the current authorized level of \$148 million annually to \$110 million beginning Oct.
   1, 1993. USDA Secretary is directed to implement certain program reforms to target assistance to counter and offset unfair foreign trade practices. Greater participation in the MPP from small entities will be encouraged. MPP is an export promotion program that helps producers and processors of U.S. agricultural products develop export markets.
- Caps enrollment of land into the Conservation Reserve Program (CRP) at 38 million acres through 1995 rather than the 40 million acres minimum enrollment target under current law. Currently, there are 36.5 million acres in the CRP.
- Reduces total acreage enrollment into the Wetlands Reserve Program (WRP) to a minimum of 330,000 acres through 1995, and a minimum of 975,000 acres through 2000. Current law requires enrollment of 1 million acres into the WRP through 1995.
- Requires the Federal Crop Insurance Corporation to take steps necessary to

### McPherson Appointed as New MSU President

Below, M. Peter McPherson accepts his appointment as the 19th MSU president from the MSU Board of Trustess. McPherson's previous career in financial and business administration will be put to the test as the university deals with restraining tuition increases and administrative costs.



A Kent County farm boy who grew up to be a bank executive has been picked by Michigan State University's Board of Trustees to serve as MSU's 19th president. M. Peter McPherson, a 1963 MSU graduate, was serving as executive vice president at Bank of America in San Fransisco.

McPherson was responsible for the Trust Department, domestic and international private banking, institutional investment and mutual funds. He was also responsible for restructuring debt with developing nations, reducing the debt from \$7.5 billion to \$600 million.

MFB President Jack Laurie welcomed news of the appointment and said he hopes the new president will remember that MSU is a land grant university, and that the focus is service to the people – and that includes agriculture.

"We feel it's important that the university has leadership, and that the leadership be in place and be active, and it's time that it happened," said Laurie.

"We in agriculture look forward to an opportunity to build our relationship with the new president. We would like to impress on him how important it is that the agricultural industry has the support-base of our land grant university in order to be a major part of our economy," Laurie concluded.

One of the major challenges facing Mc-Pherson is helping MSU provide the opportunity for a quality and affordable education, according to Ron Nelson, legislative counsel for MFB.

"The Legislature has limited funds and over the past several years, the increase in year-to-year appropriations to MSU has been minimal. Tuition is the other source of funding for the university, but as that increases, it limits the number of people who can afford to attend MSU," he said.

### Notice of Public Hearing on Proposed Amendments to Regulation No. 628 Seed Potato Certification

A public hearing on proposed amendments to Regulation No. 628, Seed Potato Certification, will be held on Wednesday, Sept. 8, 1993, beginning at 10 a.m. in the Ottawa Building, Upper Parking Level, Conference Room #3, 611 W. Ottawa, Lansing, Michigan.

The proposed amendments provide for:

be cleaned other than on the seed farm premises.

7. Revision of sanitation standards for any grower operation in which bacterial ring rot has been identified.

8. Revision of grading tolerances for yellow tag and red tag grade seed potatoes.

(BST) following approval by the Food and Drug Administration for 90 days. During the 90-day moratorium, the USDA must complete an economic and social impact study within 45 days. Congress then has the remaining 45 days to decide what, if any, further legislative actions are appropriate regarding BST. The current assessment levied on all producers will be reduced 10 percent during the 90-day period.

- Increases sugar program assessments by 10 percent on raw cane and beet sugar beginning with marketings after Sept. 30, 1994.
- Reduces the soybean loan rate from the current \$5.02 per bushel to \$4.92 per bushel, and reduces the minor oilseed loan rate from \$8.90 per hundredweight to \$8.70 effective with the 1994 crop.
- Eliminates the current 2 percent loan origination fee for soybeans and minor oilseeds beginning with the 1994 crop.

improve the actuarial soundness of the Federal Crop Insurance program so as to achieve a projected overall loss ratio of no greater than 1.1 by Oct. 1, 1995.

These steps include instituting a requirement for actual production history records by farm producers, expanding the current "Group Risk" pilot program, creating a nationwide database to track participation to improve actuarial soundness while maintaining fairness and effective coverage for producers.

#### **MFB POSITION:**

Farm Bureau opposed H.R. 2264 because of the massive tax increases. Farm Bureau did not support the \$2.9 billion spending cuts for agriculture which has already seen cuts averaging 9 percent in each of the last eight years. These cuts are disproportionate to other segments of the federal budget.

MFB CONTACT: Al Almy, Ext 2040 1. Revision of requirements for certification eligibility and elimination of the required list of eligible varieties.

2. Revision of field and storage isolation requirements.

 Revision of storage and sanitation requirements for bacterial ring rot infected potatoes and cull potatoes.

4. A reduction in the number of field inspections from three to two or more for prenuclear, nuclear, generation I, II, III, IV, premier foundation, and foundation seed potatoes.

5. Sanitation and recordkeeping requirements for packaging facilities.

 Inclusion of sanitation provisions to regulate access to storages, processing areas, and production fields by non-disinfected equipment. Requires that trucks used to transport certified seed potatoes and the second has a second state of the second second second second second second second second second second

9. Establishment of a tag (purple) for prenuclear stock.

10. Additional definitions for operation, prenuclear seed stock, certification, separate operation, and tolerance.

The department invites all interested persons to present their views regarding the proposed amendments either orally or in writing. Those wishing to testify in person at the hearing are required to bring written statements with them. Written comments must be received by the Pesticide and Plant Pest Management Division by 5 p.m., Wednesday, Sept. 15, 1993.

A copy of the proposed amendments to the regulations can be acquired from the Michigan Department of Agriculture, Pesticide and Plant Pest Management Division, P.O. Box 30017, Lansing, Michigan 48909, telephone (517) 373-9753, upon request.

Michigan Farm Bureau (517) 323-7000



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30-Day Forecast – Warmer Than Normal, Near Normal Precipitation

Warm, muggy conditions of late July were offset by cloudy, cool conditions in early August, resulting in near or slightly below normal temperatures for the mid-July through mid-August period. Rainfall during the period was highly variable, with some spots in the western Lower Peninsula reporting more than six inches while totals at some locations in central and southeastern Lower Michigan were less than two inches.

Following a chilly beginning, August weather will likely become more summerlike, with the main jet stream flow patterns and cool air masses expected to remain west and north of the Great Lakes region.

The latest National Weather Service 30-day outlook for mid-August through mid-September calls for above normal temperatures and near normal precipitation. This outlook should come as good news to those with full season crops (with greater growing degree day requirements) and current seasonal deficits in heat accumulation.

7/16/93	Ten	nperature	Growing Deg	gree Days	Precipitation		
	bserved Mean	Dev. From Normal	Actual Accum.	Normal Accum.	Actual (inch.)	Normal (inch)	
Alpena	67.2	+ 0.4	1402	1486	2.56	3.19	
Bad Axe	68.0	- 1.9	1609	1796	5.02	2.87	
Detroit	73.0	+ 1.2	2157	1955	1.73	2.90	
Escanaba	67.7	+ 1.0	1212	1166	2.11	3.46	
Flint	70.0	+ 0.0	1909	1955	3.30	2.90	
Grand Rapids		- 0.5	1875	1993	3.24	3.06	
Houghton	65.9	+ 0.9	1134	1362	1.89	3.53	
Houghton Lak		+ 1.1	1578	1486	2.52	3.19	
Jackson	69.8	- 2.8	1884	1957	3.49	3.21	
Lansing	69.7	- 0.5	1870	1957	3.99	3.21	
Marquette	65.3	+ 1.4	1176	1362	3.70	3.53	
Muskegon	70.9	- 0.7	1824	1712	5.51	2.94	
Pellston	66.7	+ 1.2	1377	1535	1.77	2.88	
Saginaw	70.0	- 1.2	1822	1796	3.72	2.87	
Sault Ste. Mar		- 0.4	1047	1166	2.09	3.46	
South Bend	72.6	+ 1.1	2125	1993	2.29	3.06	
<b>Traverse City</b>	69.3	- 0.3	1601	1535	2.70	2.88	
Vestaburg	68.5	- 2.6	1631	1784	4.75	3.15	

Observed and growing degree day totals are accumulated from March 1 – August 15 Normals are based on district averages. Jeff Andresen, Ag Meteorologist, MSU

### Michigan Yield Prospects Much Improved This Year

Michigan and Major Commodity Area Extended Weather Outlook 8/15 ..... 10/31 T - Temp. 8/15..... 8/31 P - Precip. T ..... P T.....P Michigan A.....N N .....N W. Corn Belt A ..... B.....N N E. Corn Belt N ..... N/B Β. .....A Wint. Wheat Belt A. ....N B/N ..... N Spr. Wheat Belt A. B .....N .....N A .....N Pac. NW Wheat .....N N. Delta .....B N .....N Southeast ..B N/A .....N A .....B San Joaquin N..... NP

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

A more "normal" summer has left Michigan's yield prospects improved over last year, according to the Federal/State Michigan Agricultural Statistics Service.

Cumulative growing degree days are up significantly from 1992, while precipitation levels are also higher except in the southeast and parts of the Thumb. Based on conditions as of Aug. 1, yields are forecast to be higher than 1992 levels for all but small grain crops.

The corn yield is forecast at 110 bushels per acre, up five bushels from 1992. Acres for harvest as grain is expected to be 2.2 million acres, down 100,000 acres from last season. Total production at 242 million bushels is up less than one percent from last year.

Soybean production is estimated at 51.5 million bushels, an increase of 8 percent from 1992. The expected yield is 36 bushels per acre, up 3 bushels from last season.

Dry bean yield is forecast at 1,600 pounds, up 350 pounds per acre from last year. Production is expected to total 6.1 million hundredweight (cwt.), an increase of 57 percent from 1992.

Sugarbeet production is forecast at just over 3.4 million tons, up 10 percent from last season.

The all hay yield is estimated at 3.91 tons per acre. All hay production, at 5.3 million tons, is up 14 percent from last year. The expected alfalfa yield, at 4.2 tons per acre, is up 17 percent from 1992.

Summer potato production, pegged at 3.5 million cwt., is up 12 percent from 1992.

The winter wheat yield is forecast at 45 bushels per acre, down five bushels from July, and down 11 bushels from 1992. Total production is down 31 percent from last

year due to lower yields and less acres for harvest.

Oat production is estimated at 9.2 million bushels, up 9 percent from 1992. The expected yield is 68 bushels per acre, down two bushels from last season.

Nationally, corn yield is forecast at 116 bushels per acre, down 15.4 bushels from last year's record yield. Production is estimated at 7.42 billion bushels, down 22 percent from 1992's record level. Acres harvested from grain were revised down 5 percent from the June "Acreage" estimate (almost 3.3 million acres) due to flooding in the Midwest and a drought in the Southeast.

Soybean acreage was revised down 7 percent (4.1 million acres) from June. Yields are expected to be 33.8 bushels per acre, down 3.8 bushels from 1992. Production is forecast at 1.9 billion bushels, down 13 percent from last season.

The dry bean crop is estimated to be up 18 percent. Winter wheat production, at 1.8 billion bushels, is up 11 percent from 1992.



### Michigan Dry Bean Prospects Good

Michigan's 1993 dry bean production is forecast at 6,080,000 hundredweight (cwt.), up 57 percent from the disappointing 1992. The excellent growing conditions during July accounted for the increase in production, according to the Michigan Agricultural Statistics Service. As of Aug. 1, yields are forecast at 1,600 pounds per acre, up 350 pounds per acre from last year, assuming normal weather conditions for the remainder of the season.

The majority of the crop was planted in late June and early July. Some early plantings were replanted during this time period due to some heavy rains in mid-June. A warm August with timely showers would be beneficial for the crop along with a frost free September

All dry beans planted are estimated at 390,000 acres, up 16 percent from 1992. The August acreage estimate is based on a special survey of about 1,500 farmers in the 18 largest dry bean producing counties. The survey was conducted during July after most of the planting was completed. Harvested acreage is expected to total 380,000 acres, up 23 percent from a year ago.

Navy bean planted acreage is estimated at 260,000 acres, up 25,000 acres from 1992. Planted acreage for all colored varieties of beans is estimated at 130,000 acres, up 30,000 acres from last season. Class breakdowns for planted acreages within the colored category were as follows: dark kidney, 10,000; light kidney, 8,000; cranberry, 40,000; black turtle, 60,000; pinto, 7,000; small white, 2,000; and other, 3,000.

Nationally, the 1993 crop of dry beans is forecast at 26.0 million cwt., up 18 percent from last year but 23 percent below the record high crop of two years ago. Production in North Dakota is expected to total 4,370,000 cwt., down 7 percent from last year. Flood losses or excessive rains lowered yields from last year in Minnesota, North Dakota, and Wisconsin. Considerable acreage in North Dakota is saturated beyond recovery.

Estimated Production for 1993 harvest as of Aug. 3, 1993, by Greg Varner, Research Agronomist, and Dale Kuenzli, Executive Director of the Michigan Bean Commission:

#### Michigan Dry Bean Production 1993 Estimates as of August 9, 1993

Colored Varieties Variety <u>1992</u> Harvested Acreage				1993	and an and state
		Carry Over CWT	Acres	Yield	Production
DRK	7,000		13,000	1450	188,500
LRK	8,000	10,000	10,000	1500	150,000
Crans	30,000	10,000	35,000	1475	516,250
Pintos	7,000		6,000	1500	90,000
Blacks	40,000		70,000	1650	1,155,000
Sm wht		2,000	1,200	1400	16,800
Gr Norther	'n		1,400	1600	22,400
Other			3,000	1500	45,000
Sub-Total		22,000	139,600		2,183,950
Navy		1,600,000	240,000	1450	3,480,000
Grand Total	1.1.1.1.1.1.1	1,622,000	379,600		5,663,950



**10 Reminders for Successful Wheat Production in Michigan** 

Wheat is an excellent crop that fits well into many cash crop farm rotations. Planting wheat in your rotation can help increase soil productivity, reduce soil erosion, spread out yearly labor requirements and improve cash flow prior to fall harvest. To obtain your best yields, consider the follow-

ing production recommendations: 1. Control perennial weeds prior to planting.

2. Avoid planting after wheat and other small grains.



Hessian Fly-Free Dates for Michigan<sup>1</sup>

Earliest Seeding		Earliest Seeding		Earliest Seeding		Earliest Seeding
Date		Date		Date		Date
County (Sept.)	County	(Sept.)	County	(Sept.)	County	(Sept.)
Alcona 6	Eaton	16	Lapeer .	15	Ogemaw	10
Allegan	Emmet	4	Leelanau	8	Osceola	10
Alpena 9	Genesee .	17	Lenawee	25	Oscoda	7
Antrim 4	Gladwin .	12	Livingston	16	Otsego .	6
Arenac	Grand Trave	erse8	Macomb	18	Ottawa .	19
Barry	Gratiot	15	Manistee	13	Presque Is	le 8
Bay	Hillsdale .	19	Mason .	13	Roscomm	on 7
Benzie	Huron	13	Mecosta .	12	Saginaw	16
Berrien	Ingham		Midland .	15	Sanilac	15
Branch		16	Missaukee	9	St.Clair	16
Calhoun 19		7	Monroe .	21	St. Joseph	23
Cass	Isabella .	11	Montcalm	15	Shiawasse	e 16
Charlevoix 3	Jackson .	16	Montmoren	ncy 7	Tuscola	15
Cheboygan 4	Kalamazoo	20	Muskegon	18	Van Buren	22
Clare	Kalkaska .	5	Newaygo	15	Washtena	w 18
Clinton		18	A REAL PROPERTY AND A REAL	16	Wayne .	18
Crawford 6		13	Oceana .	16	Wexford	9

<sup>1</sup>From \*Insect Control in Small Grain Crops,\* MSU Extension bulletin E-0829.

### August Fruit Report Shows Higher Yields for Michigan

Warm weather in July spurred development of fruit crops in the Great Lakes state. Insect infestations and frost kill have been

1992 season. If realized, the state yield would be 20,600 pounds per acre.

the same the second sec

3. Test soil and apply all recommended phosphate, potash and manganese plus 10 to 20 pounds of actual N per acre prior to planting or through the drill at planting.

4. Select certified seed of high yielding varieties for your area. "Chelsea," the new MSU release, is the highest yielding white wheat available.

5. Treat all wheat seed with a registered fungicide to protect the seed from seed and soil borne diseases.

6. Begin planting wheat anytime after the Fly Free date. 7. Seed with a properly equipped grain drill in seven-inch rows. Place seed one to two inches deep using a seeding rate of 29 to 32 seeds per foot of row (2.5 to 3.0 bushels per acre).

8. Top-dress with 80 to 90 pounds of actual N per acre at spring green-up.

Spray for broadleaf weeds, if required, after crop is fully tillered.

10. Scout fields for insects and diseases and apply pesticides only when needed. Be sure to apply pesticides at the growth stages recommended on the product labels.

#### Michigan State University Wheat Breeding Program: Multi-Year Performance Summary (All County sites included) Preliminary Report. July 30, 1993.

NameNa	nymen			sing	Average	Multi- Yields s/acre)			Acr	oss Tear (bu./acr			1993		1993 Di (1 rep 0-9,0* 9=seve	at Len no sym	awee, ptom,
readeIndex··<	N.         NO.			1080	1000	100*	1002	1007									
matrial1432	No.N	ATT		-	101.51				-	_	-	-					_
Interes         Sister         Siste	1.     1.     1.     1.4.2     44.2     91.5     1.     5.     53     480     90     1.       7.     80.2     87.4     80.4     80.4     81.7     1.     53     480     21     1.       7.     75     7.0     91.5     60.7     77.4     77.7     78.9     95     40.9     11.0     1.     1.       7.     75     7.0     91.5     60.7     77.1     77.7     78.9     78.0     91.5     81.0     7.0     1.     30       10.3     70     91.5     60.7     77.0     77.6     78.0     78.0     81.0     77.2     81.0     81.0     77.0     91.5     81.0     77.0     91.5     81.0     77.0     77.5     77.0     77						-		2112242	172474					-		-
nome0.227N.0.	No.0	Contract of the second s			79.2	77.0	1.511.00			79.0	79.0	1					-
none         2000         1         1         9 </td <td>III<th< td=""><td>ioneer 2510</td><td>15157</td><td>•</td><td></td><td></td><td>114.8</td><td>68.2</td><td>91.5</td><td>15</td><td></td><td>12</td><td>57.3</td><td>RED</td><td>9</td><td>0</td><td>1</td></th<></td>	III <th< td=""><td>ioneer 2510</td><td>15157</td><td>•</td><td></td><td></td><td>114.8</td><td>68.2</td><td>91.5</td><td>15</td><td></td><td>12</td><td>57.3</td><td>RED</td><td>9</td><td>0</td><td>1</td></th<>	ioneer 2510	15157	•			114.8	68.2	91.5	15		12	57.3	RED	9	0	1
Indian         LiADI         N	TALATY,0PI,0PI,1PI,1PI,2PL,0P	fendori	C4227		78.0	76.3	105.0	67.8	86.4	83.0	81.7		55.8	RED	5	1	7
cont1         cont2         r. r	TAL9T	ioneer 2545	15158	1. 41		1.4	98.2	67.4	82.8		1.		56.3	RED	5	1	8
bates         CSD2         73.         73.         74.         93.0         94.0         75.0         75.0         75.0         76.0         7	TO.5     TS.0     64.0     19.3.     46.1     77.4     78.0     78.0     78.0     78.0     84.0     7     3       40.3     7.3     71.8     86.3     66.1     77.2     77.4     78.0     78.0     78.0     84.0     7     3     3       1       66.0        58.0     84.0     7     3     1       1        65.7     77.0     71.0     78.0 </td <td>ladison</td> <td>14631</td> <td>100</td> <td>74.4</td> <td>75.0</td> <td>91.5</td> <td>66.7</td> <td>79.1</td> <td>77.7</td> <td>76.9</td> <td>1.16</td> <td>57.2</td> <td>RED</td> <td>2</td> <td>1</td> <td>8</td>	ladison	14631	100	74.4	75.0	91.5	66.7	79.1	77.7	76.9	1.16	57.2	RED	2	1	8
Name         Hole         Ro.         Ro. </td <td>ab.a</td> <td>owell</td> <td>C4827</td> <td>-</td> <td>74.9</td> <td>76.6</td> <td>103.9</td> <td>66.5</td> <td>85.2</td> <td>82.3</td> <td>80.4</td> <td>1 de</td> <td>54.9</td> <td>WHITE</td> <td>3</td> <td>1</td> <td>6</td>	ab.a	owell	C4827	-	74.9	76.6	103.9	66.5	85.2	82.3	80.4	1 de	54.9	WHITE	3	1	6
inter:         2571         1330         . <t< td=""><td>1         1         46.0         1         1         57.8         Map         7         3         1           45.9         49.0         71.1         191.7         45.4         49.4         74.8         74.8         74.8         74.8         74.8         74.8         74.8         75.9         77.8         7.8         75.3         87.2         48.0         7</td><td>Chelsea</td><td>C5023</td><td>70.5</td><td>75.0</td><td>66.9</td><td>103.9</td><td>66.4</td><td>85.1</td><td>79.0</td><td>78.0</td><td>76.5</td><td>56.9</td><td>WHITE</td><td>1</td><td>1</td><td>3</td></t<>	1         1         46.0         1         1         57.8         Map         7         3         1           45.9         49.0         71.1         191.7         45.4         49.4         74.8         74.8         74.8         74.8         74.8         74.8         74.8         75.9         77.8         7.8         75.3         87.2         48.0         7	Chelsea	C5023	70.5	75.0	66.9	103.9	66.4	85.1	79.0	78.0	76.5	56.9	WHITE	1	1	3
papping         13354         . <th< td=""><td>N         N</td><td>Iwain</td><td>14646</td><td>68.3</td><td>77.3</td><td>71.8</td><td>88.3</td><td>66.1</td><td>77.2</td><td>75.4</td><td>75.8</td><td>74.3</td><td>58.9</td><td>RED</td><td>7</td><td>1</td><td>3</td></th<>	N         N	Iwain	14646	68.3	77.3	71.8	88.3	66.1	77.2	75.4	75.8	74.3	58.9	RED	7	1	3
pag35         1334         .<	I         I	Pioneer 2571	15330	100	-	-	-	66.0					57.8	RED	7	3	1
contry         1343         .	1     . </td <td></td> <td>110.0</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>1.</td> <td>56.2</td> <td>RED</td> <td>8</td> <td>0</td> <td>5</td>		110.0	-	-	-					-	1.	56.2	RED	8	0	5
math         math <th< td=""><td>S. 9         B. 0.         T. 1         107.7         B. A.         B. A.         T. 4         T. 5.         T. 4.         S. 7.         WITE         2         4         B.           18 A.S.         69.7         T. 7.         67.5         T. 2.         64.6         10.0         T. 7.         72.1         55.3         87.2         88.0         1         B         B         5.5         87.7         67.9         72.1         55.6         88.0         7         7.9         6.1         77.9         73.4         87.0         88.0         7         2         7         88.0         7         2         7         88.0         7         2         7         88.0         7         2         7         88.0         7         2         7         8           1           65.5         8.0         7         2         7         8         8         1         7         8         7         1         8         1         7         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1<td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>-</td><td></td><td>-</td></td></th<>	S. 9         B. 0.         T. 1         107.7         B. A.         B. A.         T. 4         T. 5.         T. 4.         S. 7.         WITE         2         4         B.           18 A.S.         69.7         T. 7.         67.5         T. 2.         64.6         10.0         T. 7.         72.1         55.3         87.2         88.0         1         B         B         5.5         87.7         67.9         72.1         55.6         88.0         7         7.9         6.1         77.9         73.4         87.0         88.0         7         2         7         88.0         7         2         7         88.0         7         2         7         88.0         7         2         7         88.0         7         2         7         8           1           65.5         8.0         7         2         7         8         8         1         7         8         7         1         8         1         7         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td>			-							-				-		-
Cardinal         MODB         R4.2         P7.0         P7.1         P7.1         P7.2         P8.0         P7.2         P7.0         P7.3         P7.2         P7.0         P7.3         P7.2         P7.0         P7.3         P7.0         P7.0         P7.3         P7.0         P7.0         P7.0         P7.0         P7.0         P7.0         P7.0         P7.0	1         2         80.7         70.2         80.6         60.5         82.0         70.1         75.9         75.3         87.2         84.0         7         2         8           6.6.7         77.9         75.4         97.2         64.0         80.3         74.3         72.4         72.1         93.3         86.0         8         1         2           2         4.0         80.3         74.3         72.4         72.1         93.3         86.0         7         2         1         8           2         .         47.5         91.4         64.0         7         2         .         55.6         86.0         3         5         4           2         .         .         46.3         .         .         64.3         8         1         7           1         .         .         46.3         .         .         .         55.3         86.0         3         .         7           1         .         .         .         46.3         .         .         .         .         .         .         .         .         .         .         .         .         .         .		38.77			142	CALLES 1	10000	-				100.000	1.1.1.1.1	2.4		-
Interer     24.4     14.0     17.0     77.4     77.4     77.4     77.4     77.4     77.4     77.1     87.0     7.3     88.0     8       Spreast     1.0.5     6.7.5     67.5     67.6     64.4     60.3     7.3.     77.4     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.1     77.0	Be. 7         F3.6         F3.6         F3.6         F3.6         F3.2         F3.6         F3.6 <t< td=""><td>Avenue</td><td>Shind 10</td><td>12212</td><td>COMP.</td><td>Concerned and</td><td>- Carlo</td><td>1000</td><td>- 15010m</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td></t<>	Avenue	Shind 10	12212	COMP.	Concerned and	- Carlo	1000	- 15010m							-	
sympaty         13966         64.9         70.5         62.5         97.7         64.4         6         .         .         72.4         72.4         72.4         72.4         72.5         82.0         7           Carey         153.6         .	bb         bb         c			-		-										-	_
Active         15346         .	S.       S. <td< td=""><td>Pioneer 2548</td><td>14645</td><td>66.7</td><td>75.9</td><td></td><td></td><td></td><td></td><td>1.000</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></td<>	Pioneer 2548	14645	66.7	75.9					1.000							-
Description         14422         .         .         67.5         91.4         64.7         78.0         74.5         . <th< td=""><td>2       .</td><td>Dynasty</td><td>13966</td><td>66.9</td><td>70.5</td><td>62.5</td><td>95.7</td><td>64.9</td><td>80.3</td><td>74.3</td><td>73.4</td><td>72.1</td><td>I PEAD</td><td>RED</td><td>55</td><td>1011</td><td>a high</td></th<>	2       .	Dynasty	13966	66.9	70.5	62.5	95.7	64.9	80.3	74.3	73.4	72.1	I PEAD	RED	55	1011	a high
Participa         1333         1         1         43.3         1         1         40.3         40.7 </td <td>1       1</td> <td>Casey</td> <td>15346</td> <td>•</td> <td></td> <td>18.1</td> <td></td> <td>64.8</td> <td>4</td> <td></td> <td></td> <td></td> <td>55.6</td> <td>RED</td> <td></td> <td></td> <td></td>	1       1	Casey	15346	•		18.1		64.8	4				55.6	RED			
associasile Ruf51 13336         .         .         43.5         .         .         40.2         40.7         3         5           Dapl. J-017         13359         .         .         .         45.0         .         .         55.6         407         3         5           Dapl. J-017         13539         . <td< td=""><td>3       .</td><td>Sawyer</td><td>14622</td><td></td><td>1.50</td><td>67.5</td><td>91.4</td><td>64.7</td><td>78.0</td><td>74.5</td><td></td><td>110</td><td>57.3</td><td>RED</td><td>7</td><td>2</td><td>7</td></td<>	3       .	Sawyer	14622		1.50	67.5	91.4	64.7	78.0	74.5		110	57.3	RED	7	2	7
spect, 3-017       13339       .       .       43.0       .	No.         No. <td>sr204</td> <td>15335</td> <td>া ল</td> <td>114</td> <td>14</td> <td></td> <td>63.5</td> <td>+</td> <td>1.00</td> <td></td> <td></td> <td>60.3</td> <td>RED</td> <td>1</td> <td>1</td> <td>6</td>	sr204	15335	া ল	114	14		63.5	+	1.00			60.3	RED	1	1	6
Number         1007         .         .         42.9         .         .         53.9         HD         0         1           Is Ref         15191         .         .         42.0         .         .         53.5         HD         0         1           Is Ref         15192         .         .         42.0         . <td>N         N         A         A         A         S</td> <td>ascoclassic R</td> <td>w151 15336</td> <td></td> <td></td> <td></td> <td></td> <td>63.5</td> <td></td> <td></td> <td>s time</td> <td></td> <td>60.2</td> <td>RED</td> <td>3</td> <td>5</td> <td>4</td>	N         N         A         A         A         S	ascoclassic R	w151 15336					63.5			s time		60.2	RED	3	5	4
Name         1591         .         42,0         .         .         54,1         HD         8         1           Arber         1592         .	1.       1. <th1.< th="">       1.       1.       <th1< td=""><td>Expt. 3-017</td><td>15339</td><td></td><td></td><td></td><td></td><td>63.0</td><td></td><td></td><td></td><td></td><td>55.6</td><td>RED</td><td>8</td><td>1</td><td>7</td></th1<></th1.<>	Expt. 3-017	15339					63.0					55.6	RED	8	1	7
nig Red       15191       . <th< td=""><td>1       .</td><td>Susquehanna</td><td>15007</td><td></td><td></td><td>-</td><td></td><td>62.9</td><td>1.0</td><td></td><td>1</td><td></td><td>55.9</td><td>RED</td><td>0</td><td>1</td><td>5</td></th<>	1       .	Susquehanna	15007			-		62.9	1.0		1		55.9	RED	0	1	5
Arbor         15192         .         77.1         62.8         60.9         .         .         99.3         MED         9         4           MeB225         15052         .         <	2       .		15191	10	14	-	-	62.9					56.1	RED	8	1	7
Max         Loss         Au         Au         Loss         Au         Au         Loss         Au         Au         Loss         Au         Au         Au         Loss         Au         Au <t< td=""><td>1         1</td><td></td><td></td><td>-</td><td></td><td>100</td><td>77.1</td><td>3</td><td></td><td>01-01-0</td><td>-</td><td></td><td>C. No.</td><td></td><td>9</td><td>4</td><td>3</td></t<>	1         1			-		100	77.1	3		01-01-0	-		C. No.		9	4	3
Harmody         15311         .         .         42.4         .         .         .         SP.5         ND         3         1           Nu Line         C529         .         62.8         .         62.5         .	1         .	Contract line		-				-	and and							100	
Answer         Costop         Costop <thcostop< <="" td=""><td>0         .         62.8         .</td><td>The second s</td><td></td><td></td><td></td><td></td><td>- 7.0</td><td>AND A</td><td></td><td></td><td></td><td></td><td>220.00</td><td>CONSIG.</td><td></td><td></td><td>4</td></thcostop<>	0         .         62.8         .	The second s					- 7.0	AND A					220.00	CONSIG.			4
Construint         Constru	1         1         62.5         .         .         .         59.8         RED         3         1         1           7         .         .         104,9         62.2         83.5         .         .         55.7         WHTE         2         2         1           2         .         .         92.4         61.6         77.1         .         .         57.3         RED         4         4         5           0         .	RIGHE T	10250	ALC: NO	12	22		1000		-						-	
Constant         District	1         1	Contraction of the		-	1	62.8		12111			*	•				1	-
Description         Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	2         .	Fundela			1 av				192.00			•		100		-	
Number         1 <td>4         5         61.6         .</td> <td>Msu Line</td> <td>C9327</td> <td>1</td> <td>191</td> <td></td> <td>104.9</td> <td>62.2</td> <td>83.5</td> <td>1.5</td> <td></td> <td>1</td> <td>A STREET</td> <td>WHITE</td> <td>2</td> <td>2</td> <td>-</td>	4         5         61.6         .	Msu Line	C9327	1	191		104.9	62.2	83.5	1.5		1	A STREET	WHITE	2	2	-
Number       Dist       Dist <thdist< th="">       Dist       Dist</thdist<>	0         .         .         61.2         . <td>Gr863</td> <td>-14182</td> <td></td> <td></td> <td></td> <td>92.4</td> <td>61.9</td> <td>77.1</td> <td></td> <td></td> <td></td> <td>57.3</td> <td>RED</td> <td>6</td> <td>-</td> <td>-</td>	Gr863	-14182				92.4	61.9	77.1				57.3	RED	6	-	-
Norma         Construction         Construction         Source	8         .	Pro Seeds 425b	ы 15344					61.6		11.21	1114	0.1	55.3	RED	4	4	5
Prime and the transmission         Prime and the transmission         Prime and transmission         Priman and transmission         Priman and tra	1         1	Chieftan	15190	k	14	4	12.12	61.2	1.1		1.1	1.1	59.8	RED	4	5	- 4)
Anserte W75-9         1503         .         56.9         100.2         60.3         80.2         72.4         .         56.1         MHTE         2         7           Lin coln         16447         61.5         66.0         63.7         90.0         60.2         75.1         71.3         69.9         68.2         60.6         8ED         6         1           Variety         MSU         mem         Stack ID 1989         1990         1991         1992         27.8         3 H&         4 H&         5 H&         60.1         Poddery           Wariety         MSU         Inso         1993         2.78         3 H&         4 H&         5 H&         64.2         66.1         1           Variety         MSU         Inso         1993         2.78         3 H&         4 HB         5 H         MHTE         2         7           Muline         C4826         .76.4         76.1         108.9         59.2         84.2         81.5         80.2         54.4         MHTE         2         2           Autine         D0226         .         .         .         55.4         81.3         77.5         .         54.4         MHTE         2<	4         .         56.9         100.2         60.3         80.2         72.4         .         56.1         WHITE         2         7         8           5         . <td>Dyna Grow 246</td> <td>15338</td> <td>E . a</td> <td>1.00</td> <td></td> <td></td> <td>60.9</td> <td></td> <td></td> <td></td> <td>1</td> <td>59.6</td> <td>RED</td> <td>2</td> <td>5</td> <td>5</td>	Dyna Grow 246	15338	E . a	1.00			60.9				1	59.6	RED	2	5	5
Number         Other         Factor         Factor </td <td>1         1</td> <td>Rs 927</td> <td>15163</td> <td></td> <td></td> <td></td> <td>88.3</td> <td>60,7</td> <td>74.5</td> <td></td> <td></td> <td></td> <td>59.6</td> <td>RED</td> <td>5</td> <td>4</td> <td>6</td>	1         1	Rs 927	15163				88.3	60,7	74.5				59.6	RED	5	4	6
Six Ng         192         192         192         192         192         193<	7         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         0	Annette H95-9	15034			56.9	100.2	60.3	80.2	72.4		11122	56.1	WHITE	2	7	8
Lincoln 14647 61.5 66.0 63.7 90.0 60.2 75.1 71.3 69.9 68.2 60.6 RED 6 1 Variety MSU Name Stock ID 1989 1990 1991 1992 1983 2.78 3 198 477 5 197.93 69.97 60 (b):20.00 MILdew USS P2737v 15159 105.7 60.0 82.8 54.3 WITE 5 0 MSU Line C4826 . 76.4 76.1 108.9 59.5 84.2 81.5 80.2 . 54.1 WITE 2 2 Patriot 210 15542 59.3	0.11         0.11         1.11         1.11         1.11         0.11 <th< td=""><td>Lsi Ag 1-92</td><td>15345</td><td>F Li</td><td>14</td><td></td><td>4.12</td><td>60.3</td><td></td><td>2</td><td></td><td></td><td>60.2</td><td>RED</td><td>8</td><td>0</td><td>1</td></th<>	Lsi Ag 1-92	15345	F Li	14		4.12	60.3		2			60.2	RED	8	0	1
Name         Stock 10 1989         1990         1991         1992         1993         92-93         91-93         90-93         80-93         (1bs/Du.)         Color         MII daw         Uss           P2737w         15159         .         .         105.7         60.0         82.8         .         .         .         54.3         WHITE         3         0           Mau Line         C4826         .         .         .         .         .         .         .         59.3         .	D 1989         1991         1992         1993         92-93         91-93         90-93         80-93         (tbs/bu.)         Cole         Mitclew         WSV         WU           59         .         .         105.7         60.0         82.8         .         .         54.3         WHTE         5         0         8           26         .         76.4         76.1         108.9         59.3         .         .         .         56.4         RE         8         1         8           26         . <td< td=""><td>STREET, STREET, STREET</td><td>14641</td><td>61.5</td><td>66.0</td><td>63.7</td><td>90.0</td><td>60.2</td><td>75.1</td><td>71.3</td><td>69.9</td><td>68.2</td><td>60.6</td><td>RED</td><td>6</td><td>1</td><td>6</td></td<>	STREET, STREET	14641	61.5	66.0	63.7	90.0	60.2	75.1	71.3	69.9	68.2	60.6	RED	6	1	6
P2737#       15159       .       105.7       60.0       82.8       .       .       54.3       WRITE       5       0         Mu Line       C4826       .76.4       76.1       108.9       59.5       84.2       81.5       80.2       .54.1       WRITE       2       2         Patriot 210       15342       .       .       .       .59.3       .       .       .56.4       RED       8       1         Mau Line       D0200       .       .       .       .59.2       .       .       .56.4       RED       8       1       .       .       .56.4       RED       8       1       .       .       .56.4       RED       8       1       .       .       .56.6       .       .       .56.4       MITE       2       .       .       .56.5       .       .       .52.9       RED       1       .       .       .56.5       .       .       .       .56.5       .       .       .       .56.3       .       .       .56.3       .       .       .       .56.3       .       .       .56.5       .       .       .       .56.5       .       .       .56.3	S9       .       .       105.7       60.0       82.8       .       .       .       54.3       white       5       0       8         26       .76.4       76.1       108.9       59.5       84.2       81.5       80.2       .       54.1       White       2       2       7         42       .	Variety	MSU			and see in			2 YR	3 YR	4 YR	5 YR	Weight	Grain	Powder	Y	Les
Mau Line         C4826         76.4         76.1         108.9         59.5         84.2         81.5         80.2         54.1         WHITE         2         2           Patriot 210         15342         .	26       76.4       76.1       108.9       59.5       84.2       81.5       80.2       .       54.1       WHITE       2       2       7         52       .	Name	Stock I	D 1989	1990	1991	1992	1993	92-93	91-93	90-93	89-93	(lbs/bu	.) Color	Milden	WSSV	Rus
Patriot 210         15342         .         .         59.3         .         .         .         56.4         RED         8         1           Hsu Line         D0200         .	x2       .	P2737w	1515	9		16 1	105.7	60.0	82.8	1.14			54.3	WHITE	5	0	8
Heu Line         D0200         .         .         59.2         .         .         .         54.8         WHITE         1         7           Karena         15026         .         66.4         107.3         59.0         83.1         77.5         .         54.8         WHITE         1         7           Tud6317         14670         .         64.8         102.2         58.0         80.5         75.3         .         52.9         RED         1         7           Augusta         M0300         58.6         71.1         61.1         102.8         58.6         .         .         .         55.4         RED         1         1           Multime         D0187         .         .         .         58.5         .         .         .         55.4         RED         1         1           Msu Line         D0265         . <t< td=""><td>00       .</td><td>Msu Line</td><td>C482</td><td>6 .</td><td>76.4</td><td>76.</td><td>1 108.9</td><td>59.5</td><td>84.2</td><td>81.5</td><td>80.2</td><td></td><td>54.1</td><td>WHITE</td><td>5</td><td>5</td><td>7</td></t<>	00       .	Msu Line	C482	6 .	76.4	76.	1 108.9	59.5	84.2	81.5	80.2		54.1	WHITE	5	5	7
Karena         15026         .         66.4         107.3         59.0         83.1         77.5         .         54.9         WHITE         2         8           Tud6317         14670         . <td>26       .</td> <td>Patriot 210</td> <td>1534</td> <td>2 .</td> <td>(e)</td> <td></td> <td></td> <td>59.3</td> <td>1.10</td> <td>14</td> <td>i liter</td> <td></td> <td>56.4</td> <td>RED</td> <td>8</td> <td>1</td> <td>8</td>	26       .	Patriot 210	1534	2 .	(e)			59.3	1.10	14	i liter		56.4	RED	8	1	8
Tubb517       14670       .       64.8       102.2       58.9       80.5       75.3       .       52.9       RED       1       7         Augusta       M0500       58.6       71.1       61.1       102.8       58.6       80.7       74.1       75.4       70.4       53.8       WHITE       2       7         Gr915       15347       .       .       .       58.6       . </td <td>TO       .       64.8       102.2       58.9       80.5       75.3       .       52.9       RED       1       7       5         00       58.6       71.1       61.1       102.8       58.6       80.7       74.1       73.4       70.4       53.8       MMITE       2       7       4         47       .       &lt;</td> <td>Msu Line</td> <td>D020</td> <td>0 .</td> <td>4</td> <td></td> <td></td> <td>59.2</td> <td>147</td> <td></td> <td></td> <td>S. 8</td> <td>54.8</td> <td>WHITE</td> <td>1</td> <td>7</td> <td>1</td>	TO       .       64.8       102.2       58.9       80.5       75.3       .       52.9       RED       1       7       5         00       58.6       71.1       61.1       102.8       58.6       80.7       74.1       73.4       70.4       53.8       MMITE       2       7       4         47       .       <	Msu Line	D020	0 .	4			59.2	147			S. 8	54.8	WHITE	1	7	1
Augusta         M0300         58.6         71.1         61.1         102.8         58.6         80.7         74.1         73.4         70.4         53.8         WHITE         2         7           Gr915         15347         .	00       58.6       71.1       61.1       102.8       58.6       80.7       74.1       73.4       70.4       53.8       MHITE       2       7       4         47       . <td>Karena</td> <td>1502</td> <td>6</td> <td></td> <td>66.4</td> <td>4 107.3</td> <td>59.0</td> <td>83.1</td> <td>77.5</td> <td></td> <td></td> <td>54.9</td> <td>WHITE</td> <td>2</td> <td>8</td> <td>5</td>	Karena	1502	6		66.4	4 107.3	59.0	83.1	77.5			54.9	WHITE	2	8	5
Augusta         M0300         58.6         71.1         61.1         102.8         58.6         80.7         74.1         73.4         70.4         53.8         WHITE         2         7           Gr915         15347         .	00       58.6       71.1       61.1       102.8       58.6       80.7       74.1       73.4       70.4       53.8       WHITE       2       7       4         47       . <td>Tw86317</td> <td>1467</td> <td>ю.</td> <td></td> <td>64.1</td> <td>8 102.2</td> <td>58.9</td> <td>80.5</td> <td>75.3</td> <td></td> <td></td> <td>52.9</td> <td>RED</td> <td>1</td> <td>7</td> <td>5</td>	Tw86317	1467	ю.		64.1	8 102.2	58.9	80.5	75.3			52.9	RED	1	7	5
Gr915       15347       .	47       .		Court -		-		and the second s	-	80.7	00.00	-	_			-		-
Msu Line         D0187         .         .         58.5         .         .         .         54.2         WHITE         2         5           Msu Line         D0503         .	87       .	0.02407.04	14000		-		e comite	-	-			-	-	100000000		1.0	_
Msu Line         D0503         .         .         58.5         .         .         .         56.3         RED         6         4           Excel Oh286         14187         .         .         .         58.5         .         .         .         .         56.3         RED         6         4           Excel Oh286         14187         .	03       .				-		-	1007 31	11/2		-	-		C UL COL			-
Excel Oh286         14187         .         .         88.1         58.4         73.2         .         .         .         53.3         RED         7         1           Becker         M0297         56.9         61.5         62.1         99.3         58.3         78.8         73.2         70.3         67.6         53.7         RED         9         3           Msu Line         D0026         . <td>87       .       .       88.1       58.4       73.2       .       .       .       53.3       RED       7       1       8         97       56.9       61.5       62.1       99.3       58.3       78.8       73.2       70.3       67.6       53.7       RED       9       1       8         26       .</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>and the second</td> <td>-</td>	87       .       .       88.1       58.4       73.2       .       .       .       53.3       RED       7       1       8         97       56.9       61.5       62.1       99.3       58.3       78.8       73.2       70.3       67.6       53.7       RED       9       1       8         26       .						-		-							and the second	-
Becker         H0297         56.9         61.5         62.1         99.3         56.3         78.8         73.2         70.3         67.6         53.7         RED         9         1           Msu Line         D0026         .	97       56.9       61.5       62.1       99.3       58.3       78.8       73.2       70.3       67.6       53.7       RED       9       1       8         26       .					-			-						0.00		-
Hou Line         D0026         .         .         S8.2         .         .         S3.9         WHITE         6         7           Frenkemmuth         M0290         59.0         66.8         61.9         98.1         58.0         78.0         72.6         71.2         68.7         55.4         WHITE         2         7           Msu Line         C9208         .         .         104.3         57.9         81.1         .         .         55.1         WHITE         3         7           Ny 262-37-10w         15169         .         .         .         57.5         .         .         .         55.1         WHITE         7         1           SwB2         15340         .	26       .		1.000	-				-	10.01			_	- Lord Co	1.1.1			-
Frankenmuth         M0290         59.0         66.8         61.9         98.1         58.0         78.0         72.6         71.2         68.7         55.4         MHTE         2         7           Msu Line         C9208         .         .         104.3         57.9         81.1         .         .         55.1         MHTE         3         7           Ny 262-37-10w         15169         .         .         .         57.5         .         .         .         57.5         WHTE         7         1           Sw82         15340         . <t< td=""><td>90       59.0       66.8       61.9       98.1       58.0       78.0       72.6       71.2       68.7       55.4       WHITE       2       7       5         06       .       .       104.3       57.9       81.1       .       .       55.1       WHITE       3       7       1         69       .       .       .       .       57.5       .       .       .       .       55.1       WHITE       3       7       1         40       .</td><td></td><td></td><td>_</td><td>-</td><td></td><td>_</td><td>-</td><td>1.000</td><td>-</td><td></td><td></td><td></td><td></td><td>_</td><td>-</td><td></td></t<>	90       59.0       66.8       61.9       98.1       58.0       78.0       72.6       71.2       68.7       55.4       WHITE       2       7       5         06       .       .       104.3       57.9       81.1       .       .       55.1       WHITE       3       7       1         69       .       .       .       .       57.5       .       .       .       .       55.1       WHITE       3       7       1         40       .			_	-		_	-	1.000	-					_	-	
Hsu Line         C9208         .         104.3         57.9         81.1         .         .         55.1         WHTE         3         7           Ny 262-37-10w         15169         . <td>08       .       .       104.3       57.9       81.1       .       .       55.1       WHITE       3       7       1         69       .       .       .       57.8       .       .       .       57.5       WHITE       7       1       4         40       .</td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td>* /3</td> <td>-</td> <td>-</td> <td>A. 144</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td>	08       .       .       104.3       57.9       81.1       .       .       55.1       WHITE       3       7       1         69       .       .       .       57.8       .       .       .       57.5       WHITE       7       1       4         40       .			_			* /3	-	-	A. 144	-	-				-	-
Ny 262-37-10w       15169       .       .       57.8       .       .       57.5       WHITE       7       1         Sud2       15340       .	69       .	Frankenmuth			0 66.8	61.		-	-	72.6	71.2	68.7					-
SuB2         15340         .         .         57.5         .         .         .         56.1         RED         6         1           Msu Line         D0543         .         .         .         57.0         .         .         .         53.1         HNIE         6         7           Msu Line         D0186         .	40       .	Hsu Line	C920	. 8		•	104.3	57.9	81.1		1		0000	1.1.1.1.1.1.1.1.1	3	7	1
Msu Line         D0543         .         .         57.0         .         .         .         53.1         MHTE         6         7           Msu Line         D0186         .         <	43       .	Ny 262-37-10	1510	i9 .			1. 1	57.8	1	100			57.5	WHITE	7	1	4
Msu Line         D0186         .         .         56.9         .         .         .         S2.5         RED         3         5           Msu Line         C9283         . <t< td=""><td>66       .</td><td>\$w82</td><td>1534</td><td>. 0</td><td></td><td></td><td>1.2.2</td><td>57.5</td><td></td><td></td><td></td><td></td><td>56.1</td><td>RED</td><td>6</td><td>1</td><td>7</td></t<>	66       .	\$w82	1534	. 0			1.2.2	57.5					56.1	RED	6	1	7
Msu Line         C9283         . <t< td=""><td>83       .</td><td>Hsu Line</td><td>D054</td><td>.3 .</td><td></td><td></td><td></td><td>57.0</td><td></td><td></td><td></td><td></td><td>53.1</td><td>WHITE</td><td>6</td><td>7</td><td>5</td></t<>	83       .	Hsu Line	D054	.3 .				57.0					53.1	WHITE	6	7	5
Hilisdale         M0295         60.2         64.8         60.3         97.2         56.1         76.6         71.2         69.6         67.7         56.1         RED         5         5           Gr 876         14615         67.7         73.2         71.5         92.6         55.8         74.2         73.3         73.2         72.1         57.1         RED         5         1           Geneva         M0302         63.0         71.7         69.0         94.3         55.4         74.8         72.9         72.6         70.6         55.5         WHITE         7         1           Geneva         M0302         63.0         71.7         69.0         94.3         55.4         7.4.8         72.9         72.6         70.6         55.5         WHITE         7         1           Genesee         M0001         . <t< td=""><td>95       60.2       64.8       60.3       97.2       56.1       76.6       71.2       69.6       67.7       56.1       RED       5       5       8         15       67.7       73.2       71.5       92.6       55.8       74.2       73.3       73.2       72.1       57.1       RED       5       1       2         02       63.0       71.7       69.0       94.3       55.4       74.8       72.9       72.6       70.6       55.5       WHITE       7       1       6         01       .<!--</td--><td>Hsu Line</td><td>D018</td><td>16 .</td><td></td><td></td><td></td><td>56.9</td><td></td><td></td><td>1</td><td></td><td>52.5</td><td>RED</td><td>3</td><td>5</td><td>5</td></td></t<>	95       60.2       64.8       60.3       97.2       56.1       76.6       71.2       69.6       67.7       56.1       RED       5       5       8         15       67.7       73.2       71.5       92.6       55.8       74.2       73.3       73.2       72.1       57.1       RED       5       1       2         02       63.0       71.7       69.0       94.3       55.4       74.8       72.9       72.6       70.6       55.5       WHITE       7       1       6         01       . </td <td>Hsu Line</td> <td>D018</td> <td>16 .</td> <td></td> <td></td> <td></td> <td>56.9</td> <td></td> <td></td> <td>1</td> <td></td> <td>52.5</td> <td>RED</td> <td>3</td> <td>5</td> <td>5</td>	Hsu Line	D018	16 .				56.9			1		52.5	RED	3	5	5
Hilisdale         M0295         60.2         64.8         60.3         97.2         56.1         76.6         71.2         69.6         67.7         56.1         RED         5         5           Gr 876         14615         67.7         73.2         71.5         92.6         55.8         74.2         73.3         73.2         72.1         57.1         RED         5         1           Geneva         M0302         63.0         71.7         69.0         94.3         55.4         74.8         72.9         72.6         70.6         55.5         WHITE         7         1           Geneva         M0302         63.0         71.7         69.0         94.3         55.4         7         7         7         1         1           Geneva         M0301         .	95       60.2       64.8       60.3       97.2       56.1       76.6       71.2       69.6       67.7       56.1       RED       5       5       8         15       67.7       73.2       71.5       92.6       55.8       74.2       73.3       73.2       72.1       57.1       RED       5       1       2         02       63.0       71.7       69.0       94.3       55.4       74.8       72.9       72.6       70.6       55.5       WHITE       7       1       6         01       . </td <td></td> <td>C920</td> <td></td> <td></td> <td>-</td> <td>99.9</td> <td>-</td> <td>78.1</td> <td></td> <td></td> <td>-</td> <td>54.2</td> <td>WHITE</td> <td>3</td> <td>5</td> <td>1</td>		C920			-	99.9	-	78.1			-	54.2	WHITE	3	5	1
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negligible, according to the Michigan Agricultural Statistics Service.

The sets of fruit that are pollinated earliest, however, were hampered by the below normal spring temperatures. There has been scattered hail injury in apples, and some disease damage in plums, grapes and sweet cherries. The quality of fruit, however, should be higher than in 1992.

The Aug. 1 grape production forecast for Michigan was 55,000 tons, up 17 percent from 1992. If realized, the yield would be five tons per acre.

The potential **peach** output was placed at 50 million pounds, equal to last year's crop. The **pear** tonnage was cast at 5,000 tons, a drop of 17 percent from 1992. The **plum** crop was predicted to plummet to 3,000 tons, down from 8,000 tons the last two years.

The **apple** production forecast was 1.1 billion pounds, up 2 percent from the bountiful Nationally, the apple crop was placed at just under 10.8 billion pounds, up less than one percent from 1992. Production in Washington and New York was forecast at 4.8 and 1.02 billion pounds, respectively.

The peach crop forecast, excluding California clingstones, was 1.63 billion pounds, up 10 percent from last year.

Grape production was placed at 5.63 million tons. Five million pounds of that production is in California.

The pear output was set at 945,300 tons, a 2 percent rise from 1992. California, Washington and Oregon accounted for 96 percent of the crop forecast.

The plum production forecast was 29,500 tons, slipping from 38,100 tons a year ago. These figures include production in Michigan, Idaho, Oregon and Washington.

Interpretation: Yield comparisons are only valid within a column. 1993 yield data is calculated using a more conservative method than used in previous years. This reduced plot yields by about 20%. A more comprehensive data report will be issued later this year. Bata for Susquehamma are for only 4 sites (occurence 2 at Lenawee omitted). For additional information contact R. Ward, 517/355-2231



August 30, 1993

# 6

## Market Outlook...

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

The grain markets have been jumping for several months and I expect that pattern to continue through at least the first major frost in the Corn Belt. Over 7 million acres of corn and soybeans were either not planted or drowned out due to the flooding in the central Corn Belt.

In the Southeast, crops were burnt up due to high temperatures and lack of rainfall. On the other hand, we have huge stocks of corn and moderate stocks of soybeans left over from this year, and excellent looking corn and soybeans in the eastern Corn Belt. There will still be some excellent pricing opportunities between now and harvest for market watchers with a marketing plan.

#### CORN

On Aug. 11, the USDA released its first survey based estimate of 1993 U.S. corn production. The survey showed corn production would be 7.4 billion bushels, over 2 billion bushels below last year's record-breaking crop.

The U.S. yield is expected to be 116 bushels per acre, 15 bushels below last year's phenomenal yield and about 6-7 bushels below the 30-year trend. **Remember**, the yield is calculated only from the harvested acres; the drowned out acres are not averaged in.

The big cuts, of course, are coming from Iowa, Minnesota, Missouri, South Dakota and Wisconsin. It also must be remembered that about 20 percent of the cutback in production is due to the 5 percent increase in the set-aside acres.

Michigan is projected to harvest 2.2 million acres, compared to 2.3 a year ago, from the 2.5 planted. The state yield is expected to be 110 bushels per acre compared to last year's 105 bushels of "something" per acre. And production is expected to reach 242 million bushels, about the same as last year's, but hopefully of a better quality, if the first freeze will hold off.

The USDA also released its Supply/Demand Balance Sheet which incor-

or	
DA oj.	USDA
.93	93-94
Acr	2.1
	-
3.5	7.0
9.3	73.7
2.1	64.0
1.4	116.0
Busi	hels)
00	2150
79	7423
6	
585	9,583
250	5150
10	1550
60	6700
75	1475
135	8175
50	1408
5%	17.2%
.72	\$1.72
	\$1.77
.07	\$2.3
	-

Seasonal	Commodity
Price	Trends

Wheat	++
Corn	?
Soybeans	1?
Hogs	++!
Cattle	++
Index: <sup>†</sup> = Higher Prices; TP= Topping; BT= Both	;↓ = Lower Prices; oming; ? = Unsure

porated these estimates for the 1993-94 corn marketing year and it is shown in Table 1. As you can see, we are coming into the year with about 25 percent of what we used this past year. When you add that to even this year's smaller crop, we are expected to end up with 17 percent more than we needed at the end of the 1993-94 marketing year.

Feed use is expected to drop off some due to higher corn prices, lower relative wheat prices and more feed quality wheat. Exports are expected to drop off due to higher prices, the world economy, and rest of the world production. Overall, this lowers use, but use will still be larger than production, which will lower ending stocks.

**Strategy:** Corn prices are expected to average about \$2.35 per bushel, which adjusted seasonally, would translate into \$2.20-2.25 at harvest. If you have not priced any new crop, consider doing so and then price more on rallies.

For those who have priced a significant amount, consider waiting for a sharp rally, but be ready to pull the trigger. I expect at least one early frost rally. Watch the basis offered on new crop contracts; in some cases, a hedge-to-arrive appears to be a better alternative.

#### WHEAT

As seen in Table 2, 1993 wheat production is expected to be somewhat greater than last year. When you add that to a larger carry-in and lower demand, it's not a pretty picture. Feed use is expected to be up sharply, but an expected decline in exports will more than offset it. **Michigan's** 1993 production was measured at 24.3 million bushels, down 11 million from a year ago. This decrease was caused by two factors: acres were down 90,000, and the 1993 yield was listed as 45 bushels per acre versus last year's 50.

The annual average U.S. price is expected to be around \$2.75 per bushel. As of this writing, you can sell wheat for higher than that. So the critical question is: will it pay to store and/or wait to price? Wheat prices are likely to rally if corn and beans do; therefore, it may be rational to wait to price some of your wheat given the strong odds

#### SOYBEANS

Despite the weather problems, the USDA is still projecting the U.S. soybean yield to be 33.8 bushels per acre on the harvested acres. While this number is considerably below last year's yield of 37.6 bushels, it would still be the 5th highest on record and only a little below the 2nd highest yield of 34.2 bushels per acre.

Estimated production is 1.9 billion bushels as shown in Table 2. The two biggest factors in the price increase are the 1.99 million acres that farmers weren't able to plant, and the 1.97 million lost after planting.

Use is expected to drop off significantly with the higher prices and this past year's good South American crop, and their ability to increase plantings this winter. Crushings are expected to be off 30 million bushels

#### CATTLE

Cattle slaughter is running above year ago levels as the Cattle-On-Feed Reports would suggest. However, with weights being off 3 percent, beef production has not been much different. This has helped prices and should continue to do so. As we go into fall, prices are expected to drop marginally in a seasonal pattern and with increasing weights. As of the middle of August, fall futures were in the \$75-76 range which is about where fundamentals would suggest.



corn and beans will have a rally, even though prices are already higher than fundamentals would suggest.

**Strategy:** At this point, the December basis is probably not wide enough to pay storage. So if it is offered, consider a basis contract, a minimum price contract, or sell your wheat and buy an out of the money call.

and exports off 120 million bushels. Despite this, carryover is still only expected to be 190 million bushels or 9.5 percent of use, which is tight. Historically, fundamentals would suggest a price over \$7.00 for this tight of a carryover. But it's obvious the market is very cautious, given the sharp drop-off in prices after the report. Was that just technical, or does the market have a different idea of just what the fundamentals are?

**Strategy:** Unless the market has already rallied sharply from the new crop price levels of \$6.30 as of this writing, consider holding unpriced beans for a rally. But be ready to price into the market as prices reach their previous highs. Watch the basis being offered to determine the proper tool with which to forward price your beans.

If we have much of a rally from here, consider forward pricing.

There has been pressure put on feeder prices with the increase in feed prices. Higher feeder prices in the winter and spring will mean some red ink for cattle sold at the above prices. However, the supply of feeders is not burdensome, so don't expect to see much of a drop-off in prices.

e1	Table 2	Table 3
emand	Supply/Demand	Supply/Demand
neet For	Balance Sheet For	Balance Sheet For
RN	WHEAT	SOYBEANS
USDA USDA Proj. Proj.	USDA Hilker Proj. Proj.	USDA Hilker Proj. Proj.
2 92-93 93-94	1991-92 92-93 93-94	1991-92 92-93 93-94
(Million Acres)	Wheat Acreage (Million Acres)	Soybean Acreage (Million Acres)
7 3.5 7.0	Acres Set-Aside and Diverted 10.0 3.5 0.5	Acres Planted 59.2 59.3 59.3
0 79.3 73.7	Acres Planted 69.9 72.3 72.1	Acres Harvested 58.0 58.4 58.2
8 72.1 64.0	Acres Harvested 57.7 62.4 63.9	Bu./Harvested Acre 34.3 37.6 35.2
6 131.4 116.0	Bu./A. Harvested 34.3 39.4 40.0	and the second state of th
0 131.4 110.0	Durn. Harvesten 34.5 35.4 40.0	Stocks (Million Bushels)
(Million Bushels)	Stocks (Million Bushels)	Beg. Stocks 329 278 325
1 1100 2150	Beg. Stocks 866 472 529	Production 1987 2197 2045
5 9479 7423	Production 1981 2459 2556	Imports 3 2 2
0 6 5	Imports 41 70 75	Total Supply 2319 2477 2373
6 10,585 9,583	Total Supply 2888 3001 3160	Use:
and the second second	Use:	Crushings 1254 1270 1275
8 5250 5150	Food 789 830 845	Exports 685 765 720
4 1510 1550	Seed 94 93 94	Seed, Feed and
2 6760 6700	Feed 253 194 375	Residuals 102 112 98
4 1675 1475	Total Domestic 1136 1117 1314	Total Use 2041 2152 2093
6 8435 8175	Exports 1280 1355 1550	Ending Stocks 278 325 280
0 2150 1408	Total Use 2416 2472 2464	Ending Stocks,
Comp	Ending Stocks 472 529 696	Percent of Use 13.6% 15.1% 13.4%
% 25.5% 17.2%	Ending Stocks	Regular Loan Rate \$5.02 \$5.02 5.02
2 \$1.72 \$1.72	Percent of Use 19.5% 21.4% 28.2%	
	Regular Loan Rate \$2.04 \$2.21 \$2.45	U.S. Season Average
	and the second s	Farm Price, S/Bu. \$5.58 \$5.50 \$5.75
7 \$2.07 \$2.35	U.S. Season Average	Source: USDA & Hilker

U.S. Season Average Farm Price, \$/Bu. \$3.00 \$3.24 \$2.75 Source: USDA & Hilker



August 30, 1993



# 7 Limited Liability Companies – Will it Work for Your Operation?

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

The limited liability company (LLC) is a new form of business entity for Michigan which was authorized by Act No. 23, Public Acts of 1993, effective June 1, 1993.

Prior to the limited liability company alternative, two or more individuals could operate a common entity as a partnership or a corporation. Now the option of the limited liability company allows a third alternative business organizational structure for individuals.

The business entity is an unincorporated association having two or more members and is formed under the rules and regulations prescribed in Act No. 23. Persons who contribute capital or perform services to a limited liability company are called "members." The appropriate term for the contributor to a partnership is a "partner" and to a corporation is a "shareholder."

Although the characteristics of the limited liability company parallel those of a limited partnership and a subchapter "S" corporation, there are differences in organization and regulation. This article will explain the characteristics of the business entity.

#### Advantages of the LLC

An LLC is a hybrid entity that is taxed as a partnership while providing limited liability protection for all of its members. For federal tax purposes, the income and expenses of an LLC, like a partnership, pass-through the business entity and are taxed only at the member level.

However, all members of an LLC, like the shareholders of an "S" corporation, have limited liability for the LLC's debts and claims against the LLC. No member has the personal liability of a general partner, which is the characteristic of a limited partnership.

The state of Wyoming passed legislation authorizing an LLC in 1977, but it was not until 1987 that the IRS issued Rev. Rul. 88-76, which ruled favorably on the classification of the Wyoming LLC as a partnership for federal income tax purposes.

Other states have passed LLC laws and they also meet the revenue ruling of classifying the company's net income as partnerships for taxation. Since the Michigan legislation is new, the IRS has not ruled on the tax issues, but it's expected that Michigan will obtain partnership taxation for the LLC business entity.

A person may become a member of a limited liability company by making a capital contribution which is accepted by the company as prescribed by its operating agreement.

A limited liability company must have at least two members. Unless otherwise provided by law or in an operating agreement, a person who is a member or manager, or both, of a limited liability company is not liable for the acts, debts, or obligations of the company beyond his/her investment.

#### Federal Tax Treatment of LLC

In other states, the IRS has also held that the conversion from a limited or general partnership to an LLC does not effect a termination of the partnership or cause gain or loss to be recognized. The LLC is treated as a continuation of the existing partnership.

If the business is operated as subchapter "S" or regular tax-paying corporation, the corporation must be dissolved and a new LLC entity formed. There may be ordinary and capital gain or loss income tax implications from changing a corporation to a LLC.



#### LLC Planning Pointers

Since general partners in a partnership have unlimited liability, the limited liability advantage for members is a very desirable feature for a business organization. The owners can avoid the unlimited liability responsibility by incorporating the business. but a corporation has income tax, levels of regulation, and other attributes that are not acceptable to small family business operators.

The "S" corporation partly addresses the income tax questions, but imposes limitations on the number and types of shareholders, the allowable classes of stock, and the flow through of losses to shareholders.

However, more paper work is required to protect minor owners. LLC's are subject to rigorous disclosure, recordkeeping and reporting requirements that do not apply to general partnerships.

There are many unanswered questions about how lenders, major suppliers and other firms will transact business with a limited liability company, but initial advantages of the business organization appear favorable to family owned and operated businesses.

As we become more familiar with the operations of an LLC, the advantages and disadvantages of this new business form will become clearer. Explore the features of the limited liability company with your accountant and attorney, and evaluate whether the LLC has advantages for your situation.

#### **Business Characteristics of an LLC**

An LLC is a separate legal entity like a partnership and corporation, distinct from its owners, that has full powers to conduct business in its own name. The business provides management through its members or delegates this responsibility in the operating agreement to an annually elected manager.

The LLC's operating rules come from the operating agreement prepared by the members. The operating agreement has the same purpose as the operating agreement prepared by partners in a partnership and corporate by-laws in a corporation. The operating agreement regulates the business activity and the relationship among the members.

Unlike "S" corporations, the LLC is not restricted in the number of members nor are members restricted for corporations, partnerships, pension plans, and other entities.

LLC's are generally subject, however, to rigorous disclosure, record keeping, and reporting requirements that do not apply to general partnerships. LLC's allow contributions to capital by members in the form of

#### Markets continued from page 6 HOGS

cash, property, and services rendered, and recognize binding obligations to make such contributions.

#### Articles of Organization

Articles of organization are filed with the Department of Commerce to get a limited liability company recognized in Michigan. The articles of organization shall contain the name of the company, the purposes for

#### Dissolution of an LLC

A limited liability company is dissolved and its affairs shall be concluded upon the happening of the first to occur of the following:

1. At the time specified in the articles of organization or an operating agreement.

2. Upon the happening of events specified in the articles of organization or an operating agreement.

3. By the unanimous consent of all members.

4. Upon the death, withdrawal, expulsion, bankruptcy, or dissolution of a member or the occurrence of any other event that terminates the continued membership of a member in the limited liability company, unless either of the following applies:

which the company is formed, the mailing address for the company and the initial resident agent, a statement if the company will be managed by a manager rather than the members, and the maximum number of years of duration of the company.

The name of the company must not duplicate names used for other LLC's, partnerships or corporations and must include the words "limited liability company" or con-tain the abbreviation "LLC" or "LC."



### Patz<sup>®</sup> Offers Open-Top Mixers

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Hog slaughter has been coming in at levels below what the June Hogs and Pigs Report would have suggested, although heavier weights have partially offset the lower than expected slaughter. This has kept hog prices higher than expected.

At this point, I would expect hog prices to gradually fall off through October in a typical seasonal pattern to about the \$43-44 range. Be watching for pricing opportunities that would let you lock in some of your production at higher levels.

The last Hogs and Pigs Report showed a decrease in breeding numbers. This goes against the hog-corn price ratios we have seen, and some other reports.

The structure of the pork industry is changing rapidly to larger and larger units. These large units typically have lower costs due to economies of scale and higher productivity. I do not see them cutting back at the price levels we have seen.

a. Within 90 days after the termination of membership, a majority of the remaining members, voting in accordance to the terms of their operating agreement or according to the share of distributions of the company, consent to continue the business of the company and to the admission of one or more members as necessary; and

b. Management of the limited liability company has not been delegated to managers, an operating agreement does not allow an assignee to become a member other than by unanimous consent of the other members, and the business of the company is continued as provided for in an operating agreement.

5. Upon the entry of a decree of judicial dissolution.

On trailer models, the feed discharge features a hydraulically powered door and augers.

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For stationary models: electric motors.

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Westphalia Electric, Inc. Westphalia - (517) 587-3983





August 30, 1993

### Safety Signs Warn Motorists of Left Hand Turns

We've all seen it happen or even experienced a close call ourselves. An anxious driver can't wait to get around a large piece of farm equipment that's moving way too slow in their opinion. Once on-coming traffic clears, the unaware motorist prepares to pass in the left hand lane, just as the farmer

is preparing to turn left into a farm yard or field.

As you prepare for a hectic fall harvest season, be sure to make these road safety caution signs a part of your equipment readiness checklist. Available in either hard plastic or self adhesive vinyl, these 12 inch



# A NEW MONEY SAVING HEALTH PLAN



by 18 inch bright yellow signs alert motorists that you may be making a left hand turn without warning.

According to MFB Promotion and Education Department Manager Julie Chamberlain, signs will delivered to county Farm Bureaus approximately four to six weeks after the group order is placed.

For ordering information, contact your county Farm Bureau office, or MFB's Promotion and Education Department, at 1-800-292-2680, extension 3213.



From Farm Bureau Insurance

### Be Careful on Public Roads This Fall

About half of farm equipment accidents on public roads involve collisions with other vehicles. The rest are single-vehicle mishaps -- jackknives, upsets, runs off the road, and collisions with stationary objects like bridges and culverts.

Here are steps you can take to prevent roadway accidents:

- · Be sure you can see. Clean cab windows. Keep your lights and wipers in good condition.
- · Be sure you can be seen. Along with your flashing lights, clearly display an orange triangular SMV emblem on your vehicle. Be sure the emblem is not mud-encrusted, faded, or improperly mounted.
- Keep wagon tires properly inflated, and make sure your hitch and load are secure. Nothing should stick out far enough to catch on tree branches or be struck by passing vehicles. Observe regulations concerning length, width, weight, lights, reflectors, safety chains, and warning placards for big loads or hazardous materials.
- · Move wide machinery only during daylight hours when traffic is light. Before moving large or heavy loads on unfamiliar roads or driveways, check the routes for hazards -- underpasses, weak bridges, low power lines, or narrow passages. Use a second vehicle with flashing lights to accompany large pieces of equipment.
- Allow only licensed drivers to transport farm machinery for any distance on a public road. Young workers who operate tractors in the field may lack the knowledge and judgment they need to deal safely with difficult traffic situations.
- Never carry extra riders.
- Keep driveways and access lane sightlines clear. Cut away growth blocking the view, and avoid planting tall crops where they might hide a view of oncoming traffic.
- If traffic is closer than a fifth of a mile, stop until it passes. It can take as long as 10 seconds to get fully onto or across a road from a dead stop, and a car moving at 55 mph would travel about 800 feet during that time.
- Drive cautiously, with your flashing lights on. Try to keep your vehicle on your side of the road. Pull over to let others pass if necessary. Watch for soft shoulders, ditches, culverts, posts, railroad crossings, and other hazards.
- When road and load conditions are normal, drive at full road speed to reduce the speed difference between you and the traffic following you. But if the road is rough or slippery, or your vehicle is hard to handle, slow down.

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MFN				

- · Keep the load within your tractor's ability to slow and stop. Be sure your tractor's brake pedals are locked together to ensure even braking when you drive at transport speeds.
- · Signal for turns if possible, When turning right, don't swerve into the op-posite lane. Before turning left, make sure no one is trying to pass. Avoid sudden or unexpected maneuvers. Extendable rear view mirrors will help you keep track of what's going on behind you.
- If something goes wrong with your vehicle, pull off the road as far as you can. If possible, set out reflectors and flares to warn other drivers.
- When you're a motorist and you see a farm vehicle, slow down and be prepared to stop. Before passing, check for oncoming traffic and to the rear to see if someone is trying to pass you.



### RCAP – Keeping Your Farm in Compliance With Labor Regulations



Last winter a farmer stood up during a Worker Protection Standard presentation and said, "Right now, the only farmers who are really knowledgeable about the regulations are those farmers that have either been fined or have had to go to court over some issue. If we'd only known what the regulation was, we could have saved a lot of money. Farmers want to comply to the best of their ability, but if they don't know what the rules are, it's difficult to comply," he concluded.

That sentiment is more common than ever with the rapid increase in farm regulations. It's becoming more difficult for farmers to keep track of the many rules and regulations that affect their operation.

In response to member-policy calling for help in addressing labor regulatory questions, Michigan Agricultural Cooperative Marketing Association (MACMA), and the Michigan Farm Bureau, have developed RCAP - the Regulatory Compliance Assistance Program. This program is designed to provide concisely worded, regulatory information and implementation aids to subscribers. RCAP is working closely with state and federal agencies, Michigan State University staff, attorneys and farmers to make sure the information is correct and useful.

"It can be said right now that RCAP will be an important and valuable program for Michigan agriculture," said Dr. Allen E. Shapley, MSU agriculture labor specialist. "MSU is not going to abandon programming in the area of agricultural employment. The programming of the two organizations should be very complementary in meeting the needs of agricultural employers and employees for a long time to come."

The program currently has two subscription packages available – the RCAP Newsletter Package for \$50.00 or the RCAP Manual Package for \$200.00 (each, plus tax). A yearly renewal fee will continue basic package services and manual updates to subscribers. Both packages contain the RCAP Newsletter Service and a Required Poster Pack. The Manual Package also includes the RCAP Farm Manual for Michigan Farmers.

The Required Poster Pack contains 15 bright yellow posters, made of weather resistant material, that are required by various regulations to be posted by employers. If you employ one or more workers, you are required to post many of the posters. The RCAP Manual covers in detail the requirements of each poster. The RCAP Newsletter is edited to answer the question, "What do I need to do today to be in compliance?" It will use Q & A segments to answer the questions you have about current or new regulations. Checklists will be included on a regular basis for subscribers to review their operations to find potential trouble areas before they become problems. Key court cases will be reviewed that impact Michigan agriculture. "One of the most frequent questions we heard from the field this past year was: 'what do I have to do to make sure I'm in compliance when the inspector comes around?'" said Craig Anderson, manager of RCAP. "The RCAP Newsletter checklists will be designed to assist you before the inspector comes. The RCAP Farm Manual for Michigan Farmers is designed to provide comprehensive detailed information on the regulations that affect agricultural and related operations. There will be 18 topic related sections in the basic manual. Within each topic, the manual covers several regulations that affect the topic. New regulations continue to be implemented, rules for existing regulations are

promulgated and the courts issue interpretations of the rules or regulations. As a subscriber to the manual, you will receive regular updates to keep you current on these changes. The RCAP Manual sections include Wages and Hours, Child Labor Regulations,

Wages and Hours, Child Labor Regulations, Independent Contractors, Immigration Act, At left: Al Dietrich, a partner in the Farm Ridge View Orchards in Ottawa County, and a worker review the posters the operation recieved as subscribers to RCAP. The farm employs eight full-time workers and as many as 80 seasonal workers for harvesting and packing apples, cherries, and asparagus. "I'd highly recommend RCAP, especially to someone who's unfamiliar with all of the regulations," Al said. "Farmers shouldn't wait until they're hit with a lawsuit to become aware of all the different regulations. A lot of growers are finding out the hard way."

Discrimination in Employment, Disabilities and Employment, Payment of Wages, Records-Posters-Notifications, Farm Labor Contractors, Social Security, Workers Compensation Insurance, Unemployment Insurance, Agricultural Labor Relations, Transportation, Labor Camps, OSHA Standards, Sanitation Standards and Pesticides. Each section will cover several provisions. For example, the Pesticide section will cover the Worker Protection Standard, Worker and Community Right to Know requirements, Pesticide Recordkeeping, requirements for pesticide applicators licenses and also provisions of acts such as the Fair Labor Standards Act section dealing with protective equipment.

August 30, 1993

"This manual is the easiest, best and most organized method to quickly find the regulatory information I need," said Howard Kelly, MFB legislative counsel. "This manual is like a dictionary; you don't need all of the information, but when you do need information, you need it now, you need it right, and all in one place."

Additional products and services under development include: Employee Policy Manuals, Agricultural Job Descriptions, Required Training Programs that can be modified to your farm's specific conditions including video and audio tapes, manuals and on-farm training programs, English/Spanish translation services (which are now available), on-farm compliance audits and a legal assistance referral system.

"Right now, the rules and the regulatory burdens are primarily on those who hire," Anderson said. "The rules general industry has had are being shuffled down to agriculture and those who do a lot of hiring are going to find this program very helpful up front."

To subscribe to an RCAP service or for additional information on the program, contact your MFB Regional Representative or Craig Anderson at 1-800-292-2680, extension 2311.



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### Manage Your Diesel Fuel Inventory for New EPA Regulation October 1

If you're using diesel fuel in your farm equipment, as well as your truck, you'll need to either maintain separate tanks for highway and non-highway uses, or use only low-sulfur diesel fuel starting Oct. 1.

New Environmental Protection Agency regulations regarding the content of sulfur and aromatics in diesel fuel, as well as the cetane number, will go into effect at that time. Off-road and on-road fuel will be differentiated by both sulfur and color, according to Farmers Petroleum Cooperative, Inc., Sales and Marketing Manager, Tim Underwood.

"It's important that farmers have a good understanding of these new regulations, and their fuel inventory properly adjusted by Oct. 1," said Underwood. "The EPA has the authority to sample and test all diesel fuel and violations can result in fines of up to \$25,000 per day, per violation."

Diesel and heating oils with a sulfur content of more than .05 percent will be dyed a blue color and will be illegal to use in vehicles designed for highway use.



To avoid confusion about which diesel fuel can be used when and where, Underwood suggests that producers consider using FPC's Gold Flame LS diesel fuel.

The new regulations allow fuels with a sulfur content of more than .05 percent, but not exceeding .5 percent, to be used as heating fuels. These fuels (similar to present day #2 fuel oil and diesel fuels fall

into this category) must be dyed blue and can't be used on the highway.

Fuels used in trucks, autos, or any vehicle that can be licensed for use on the highway

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must use a diesel fuel containing less than .05 percent sulfur, and must not be dyed blue.

According to Underwood, the process of desulferizing fuels requires severe hydrotreating to remove the sulfur, which also removes much of the lubricating capabilities of the diesel fuel. "To compensate for the loss of lubricity, an additive should be added to the low-sulfur #2 fuel to prevent accelerated engine wear.

Off-road vehicles (tractors, combines, stationary engines) are not required to use the low sulfur fuels. However, licensed farm vehicles are not exempt from the new regulations and must use low sulfur whether they are being used on public roads or not.

If you intend to convert an existing tank currently storing #2 diesel fuel, to store low sulfur #2 diesel, you must completely empty the tank to assure that the low sulfur fuel will not be contaminated, in order to meet EPA specifications.

"Farm Bureau members can avoid a lot of confusion by purchasing and using Farmers Petroleum Gold Flame LS premium diesel fuel with a lubrication and cold flowable additive package already added," said Underwood. "Using Gold Flame as your only diesel fuel will eliminate the possibility of contaminating low sulfur diesel with a dyed, high-sulfur diesel, while also providing excellent engine wear protection."

For more information on the new regulations, contact Farmers Petroleum Cooperative at 1-800-292-2680, extension 3301.

#### **15 Percent of Farmers Operate 57 Percent of** Michigan Farm Acreage

The number of farms in Michigan during 1993 is estimated at 52,000 farms, down 2,000 from the previous year, according to the Michigan Agricultural Statistics Service. This is the first yearly decline since 1990. Michigan has 10.7 million acres of land in farms, down 100,000 acres from the previous year. The average size of a Michigan farm in 1993 is 206 acres.

Of all Michigan farms, 8,000 were in the \$100,000 and over economic sales class, unchanged from the previous year. These large farms operated a total of 6.1 million acres, up 100,000 from last year. Farms with sales between \$10,000 and \$99,999 accounted for 16,500 farms and 3.1 million acres. This is a decrease of 1,500 farms and 200,000 acres. Farms with sales between \$1,000 and \$9,999 represented 27,500 farms and 1.5 million acres, a decrease of 500 farms with land in farms unchanged.

A farm is defined as "any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year" and must be operating on June 1. Land in farms includes: crop and livestock acreage, wasteland, woodland, pasture, land in summer fallow, idle cropland, and land enrolled in the conservation reserve program and other set-aside or commodity acreage programs. It excludes all land operated by establishments not qualifying as farms. The number of farms in the U.S. is estimated at 2.068 million, down one percent from 1992. Total land in farms is 978 million acres, down 1.8 million acres. The rate of decline in the number of farms follows the historical trend, while land in farms declined marginally. The average farm size increased from 468 acres in 1992 to 473 in 1993. Texas held its position as the state with the most farms, 185,000, up 2,000 from a year earlier. Farms in the \$100,000 and over sales class comprise 16.4 percent of the total while operating 54.4 percent of the nation's farmland.



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### Manure Management Practices Win Swartzendrubers White Pine Award

Below (I-r) Sen. Joel Gougeon (R-Bay City) looks on as brothers Paul and Ralph, and father George Swartzendruber, are congratulated by MDA Director Bill Schuette.



I wenty-five years ago, George Swartzendruber constructed and started using one of the first liquid manure systems in Michigan on his swine operation, located near Pigeon in Tuscola County. Even in those early stages of liquid manure handling, George made manure injection a part of his manure management strategy.

That continued practice and commitment to utilizing farming and fertilizer practices that protect the environment by sons, Paul and Ralph, have earned the operation, known as Thumb Swine Enterprises, the White Pine Award, sponsored by the Michigan Legislature.

"The white pine tree is our state tree and symbolic of our abundant natural resources here in Michigan," said Senator Joel Gougeon (R-Bay City), who presented the award. "This farm is surrounded by the Saginaw Bay, and Lake Huron, so it's important that we protect those natural resour-

ces for future generations. The Swartzendrubers have demonstrated that they can do something about that while maintaining a viable farm operation."

The Swartzendruber brothers, Paul and Ralph, manage a 500-sow feeder pig corporation known as Man-Gen-Co, in addition to farrowing 60 sows of their own. The operation annually feeds out 6,000 pigs a year, in addition to farming 1,000 acres of corn, wheat, and navy beans.

Fields are soil tested annually, and manure is either spring or fall applied by injection as needed, based on manure analysis and soil needs.

"We haven't broken it down into a dollar value, but based on MSU figures, testing is definitely paying off," said Paul. "By taking soil samples, we're injecting manure exactly where it's needed, while controlling odor and preserving nutrients.

### **Looking Out For The Environment**

### **Keeping Your Well Water Safe**

 $F_{are the most important}^{or rural Americans, wells}_{source of water for their family.}$ mals and crops. A turn of the tap brings water for drinking, cooking, livestock, crop irriga-

critical that we all make every effort to keep our well water safe. To protect it from contamination, you need to know as factors. For each site and combimuch as you can about the factors. For each site and combi-nation of factors, the potential

for water contamination can you farm. Listed on the right are some factors that will determine vary greatly. Ag chemical containers often list on their labels warn

just how careful you need to be. Some combination of four major factors determine whether ings about their potential to an ag chemical is likely to reach leach to ground water. If you tion and many other uses. Because it's so valuable, it's chemical, properties of the soil. can't find the information you need, your Cooperative Extension Service, USDA's Soil conditions of the site, and Con-servation Service, EPA or chemical use management practices. Runoff into nearby surface water is also affected by these manufacturer's representatives can provide information on the

Vulnerable?

**Chemicals on Hand:** If spilled on the soil, would your ag chemical products leach downward instead of binding to the soil?

If spilled, would your products break down slowly in the soil? Site Characteristics:

Is Your Ground Water

is the water table (ground water) near the surface of your farmland?

Are there sinkholes or unsafe



### **Research Promises Plants that Adapt** to Your Needs in the Future

A Michigan State University scientist has used a common weed to find a way to alter the properties of plant fibers used for making paper and animal feed.

The breakthrough, reported in the current issue of *Science*, holds promise as the first step in a scientific journey to change plants for the sake of the environment and the pocketbook

'This is the first time we've been able to substantially make changes in the cell walls of plants," said MSU Botany Professor Chris Somerville. "This is part of the process of better adapting plants to our needs.

Somerville and two post-doctoral associates, Dieter Reiter and Clint Chapple, outline in an article published in the Friday. Aug. 20, edition of Science, the development of genetic approaches that alter the composition - and thus the strength - of a plant's cell wall.

The Implications • It may be the first step, Somerville said, in growing genetically modified woody plants that can be converted to paper with less environmental pollution.

 Because the cell walls comprise the main fiber component of domestic animal crops, the results also point the way to developing crops more easily and efficiently digested by livestock. Developing such a crop could lead to significant economic savings.

The test plant is Arabidopsis (a RAB i dop sis), a weed of the mustard family. It is the same plant Somerville used to prove that plants can grow plastics.

The research last year was hailed as one of the top science stories of the year by Time magazine.

Somerville describes the cell wall research as parallel research on another class, natural polymers - cellulose and related polysaccharides

The cell walls of all plants, including both trees and plants with little or no woody tissue, such as corn and alfalfa, largely are composed of complex mixtures of these polymers.

Changing the proportions of those polymers in the cell walls of wood plants mean fewer toxic chemicals and energy to turn the wood into paper

It also could permit the recovery of useful byproducts from the paper making process that now are discarded.

#### Research Summary

· There are hundreds of genes thought to control cell wall biosynthesis - that is, producing the chemicals that make the cell wall.

· The MSU research uses standard genetic methods to inactivate, one at a time, those genes

. The goal: Figure out which genes the plant doesn't need to grow properly and survive, but which do cause the plant fibers to be hard to process or digest.

By contrast, the production of plastic plants meant adding genes to plants.

Another MSU scientist, Michael Allen, sees the new research as exciting. An associate professor of animal science and an expert on animal nutrition, Allen said creating crops consistently easy to digest can mean big savings in food production.

"I believe it's one of the most meaningful areas of research," Allen said. "If we can develop genetics that produce crops with higher fiber and digestibility and get it into the marketplaces, it's going to help farmers.'

The research, which has been in progress about four years, is funded by the grants from the U.S. Department of Energy, the USDA and private funding.



chemicals

#### **Farming Smarter**

To protect your well water, carefully consider your choice of chemicals, cultivation practices and other management decisions for your crop, soil type, land condition, weather patterns and farming situation These decisions are especially important if you farm in an environmentally sensitive area - one with highly vulnerable water supplies, wildlife or water fowl.

leaching potential of different ag

Doing a better job of managing ag chemicals doesn't necessarily mean a greater burden for you It just means everyone must keep farming smarter, to protect the very resources that make our countryside such a great place to live.

#### **Below the Surface**

If you could look beneath the surface of your farm, you'd likely find a complex system of rock, sand and gravel "containers" (aquifers) that provide water for drinking, irrigation and other uses. Roughly 97 percent of rural Americans depend on this underground water supply for drinking. Pure water is impossible to find; nature and mankind have dissolved all kinds of things in our water. But, most people find it unacceptable to have even the tiniest traces of pesticides in their water, no matter how insignificant. Keep this in mind as you carry out your crop production activities.

wells on your property If spilled, would your products runoff toward wells or surface water supplies?

#### **Soil Properties:**

Is your soil porous, allowing large quantities of water to move through it rapidly?

Is soil organic matter insufficient to help bind spilled chemicals and slow their movement in the soil?

#### **Management Factors:**

Do you store, mix or load chemicals near your wells?

Do you fail to properly rinse ag chemical containers?

Is your chemigation or spraying equipment faulty or miscalibrated?

This information is provided by the Alliance for a Clean Rural Environment, a non-profit n-political organization encouraging « stewardship and protection of water quality, supported by the makers of crop protection chemicals.

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#### August 30, 1993

# 12

### Soybean Cyst Nematode - Will it Cost You?

Michigan's newest soybean pest is spreading to more Michigan acres, cutting soybean yields by 10 to 85 percent. What does it look like, do you have it, and what can you do?

Soybean Cyst Nematode (SCN), first detected in Michigan in 1987 in Gratiot County, has now spread to at least 11 other Michigan counties, threatening yields and profitability for soybean producers.

A 33-county testing program, sponsored by MSU and the Michigan Soybean Committee, will provide an accurate picture of just how widespread the problem has become this summer.

It's believed the nematode made its way into the U.S. from Japan, where it was first reported 75 years ago. The first U.S. reports of SCN came from North Carolina in 1954 and has now spread to 28 other states via contaminated soil or improperly cleaned seed. In the corn belt states of Iowa, Illinois, and Indiana, there are very few counties that aren't infested with SCN.

SCN is a microscopic worm that goes into the root system of a soybean plant and feeds within the root, according to Peggy Thorson, north central region soybean cyst At right, MSU Nematode Diagnostician Fred Warner shows growers what SCN looks like on soybean roots, during an SCN tour at an MSU research plot in Saginaw County.

nematode project coordinator. The female nematodes swell up as they feed, and are then fertilized by the male. As the female swells, it pops out of the root. Eventually the female dies after she has laid her eggs, forming the cyst.

"Each cyst can contain as many as 200 to 250 eggs and will over winter rather easily," explained Thorson. "Unfortunately, the nematode is non-responsive to many chemical control options and yield losses can range from 10 to 85 percent."

Thorson suggests that soybean growers determine if they have an SCN infestation problem by digging up the roots of a soybean plant and looking for small pinhead shaped circles on the roots.



"They're very much smaller than a nitrogen fixing nodule - nearly 100 times smaller - and they're a white to light cream color," explained Thorson.

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#### Symptoms: Above-Ground

Above ground symptoms of SCN damage are not unique to SCN. They can be mistaken for damage from compaction, iron deficiency chlorosis and other nutrient deficiencies, drought stress, herbicide injury, or other plant diseases.

SCN often has gone undetected for several years because these nondescript symptoms were attributed to other causes, according to MSU nematode diagnostician Fred Warner. A comprehensive testing campaign that would sample 2 percent of the soybean acreage in each county will allow producers to help determine just how severe the problem is in Michigan.

"Many of the counties haven't been sampled and we expect that this nematode is present in many more counties than just the 12 we've identified thus far," said Warner. "We currently have 300 samples and I suspect we'll receive another 300, so we'll have a fairly extensive survey this year that should generate a lot more information."

Growers should look for problem areas in a field, says Warner. The first obvious signs of SCN injury is the appearance of stunted, yellowed, less vigorous plants. These infested areas will vary in their size, often showing a sharp dividing line at the edges between stunted and apparently healthy plants.

Yellowing of the plant due to SCN will generally occur in July and August, and will start at the edges of the leaves affecting leaves on the entire plant.

An area of SCN damage will often appear elongated, usually in the direction of tillage operations. Most severe damage is often in the center of the area, with damage decreasing toward the margins. Such areas frequently develop near a field gate entrance, wherever equipment enters a field, or near fences where wind-blown soil may accumulate.

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### MAKING YOUR FUTURE MORE PREDICTABLE

#### Symptoms: Below Ground

Roots infected with SCN are dwarfed or stunted. SCN decreases the number of nitrogen fixing nodules on the roots. SCN also makes the roots more susceptible to attacks by other soil-borne pathogens.

The only unique symptom of SCN infection is the presence of adult female nematodes and cysts on the soybean roots. They can be seen with the unaided eye, although observation with a magnifying glass is easier.

Roots must be carefully removed from the soil or the cysts may be dislodged. Observation of adult females and cysts on the roots of the soybean plant or in the soil is the only way to accurately diagnose SCN infestations in the field.

Warner suggests that growers get either Extension Bulletin E-2199, "Detecting and Avoiding Nematode Problems," or E-2200 "Soybean Cyst Nematode," for detailed sampling information.



August 30, 1993

#### Known Distribution of SCN in Michigan



### SCN Management Practices

#### Managing for Avoidance

Growers should make avoidance their top priority in combatting SCN. That means keeping contaminated soil from getting into a clean field, and making sure the seed that you're using is properly clean and treated, says MSU nematode diagnostician Fred Warner.

As a farmer, your goal should be to keep non-infested fields uninfested as long as possible," advises Warner. "Once you have soybean cyst nematode, you have it - you can't eliminate it.'

Common sense sanitation practices can be very effective in preventing or delaying the spread of SCN to uninfested land. If only certain fields on a farm are infested with SCN planting and cultivating of these fields should be done after uninfested fields have been worked. After working in infested fields, equipment should be thoroughly cleaned with high pressure water or steam.

Seed grown on infested land should not be used for planting uninfested fields unless the seed has been properly cleaned. SCN may be spread in soil associated with the seed.

### Managing Once Contaminated Without economical chemical control op-

tions, growers basically have few options once they confirm that a given field is contaminated. Rotation and a resistant variety of soybean are the most likely management solutions, although research is being done on potash levels, as well as application of Temik-15G in-furrow at planting time.

Ideally, we want growers on a rotation where they're growing a susceptible variety of soybean, the next time growing a non-host crop, then growing a resistant variety of soybean," explained Warner.

In severe infestations, Warner will even recommend growers rotate a field out of soybeans for as long as three years. "We use a threshold of one cyst per soil sample, and

unfortunately, for many growers in the Saginaw area, we had levels up over 400 cysts per soil sample," he said. "We can get about a 50 to 90 percent reduction in the population density for each year the field is out of soybeans.

SCN resistant soybeans aren't an absolute yet either. Warner explains that there aren't true resistant varieties available; they're just less susceptible to SCN than non-resistant varieties. There will be fewer cysts growing on the roots of resistant varieties

Compounding the problem of SCN resistant variety soybeans is the number of races of SCN prevalent in Michigan. "There are 16 races of soybean cyst nematode," said Warner. "Presently we have identified race 1, race 3, race 5, race 6 and race 14 in Michigan.

A soybean variety that may be resistant to one race will not necessarily be resistant to another variety. Race 1 and race 3 seem to be the dominant races in Saginaw County, while race 5 and 14 are most prevalent in Monroe County, the two most infested counties in the state. In general, Warner says race 3 is most prevalent in Michigan.

"I'd recommend growers conduct strip trials on their own farms to test the resistance of different varieties," suggested Warner. "I would think that most seed representatives would be more than happy to help a farmer set something like this up with various brands of resistant varieties. If their variety performs well, more than likely that farmer is going to be back next year buying seed.

Further research is needed to determine the impact of 30 inch rows versus drilled beans, and no-till versus conventional tilled soybeans, Warner said. "I'd guess that no-till would tend to reduce the speed in which soybean cysts nematodes would be spread across a field, but we don't have any research to verify that line of thought," data at this p Warner concluded.

### SCN Sampling Procedures

A laboratory analysis of soil and root or shoot system tissues is usually necessary for diagnosis or long-term avoidance of plantparasitic nematode problems associated with soybeans. In Michigan, this service is provided by the Michigan State University Diagnostic Service Laboratory

A \$10 fee is charged by MSU for analysis of each combined soil and root or individual sample. The rate of \$9 per sample is charged for lots of 20 to 49 samples, and \$8 per sample for 50 or more samples. Pre-payment is desired. A \$5 fee is charged for all billings.

Samples for nematode analysis should be shipped to:

Nematode Advisory Service Laboratory Department of Entomology Michigan State University East Lansing, MI 48824

Sampling Instrument Take samples with a soil sampling tube, trowel, or narrow-bladed shovel at a two to 12-inch depth. Include as many feeder roots as possible to recover any root-feeding (endoparasitic) nematodes.

Sample Size Each sample should consist of a pint to a quart of soil taken from a larger sample composed of 10 or more subsamples. Small area (less than 0.5 acres), take at least

10 subsamples.

· Medium area (10.5-1.0 acres), take at least 25 subsamples.

• Large area (1-80 acres), take at least 50 subsamples. No one sample should represent more than 80 acres. Mix subsamples in a clean pail or a plastic bag and submit one pint to a quart for nematode analysis.

### Samples From Problem Areas Plant-parasitic nematodes feed only on

living tissues and are rarely found in dead root samples. Therefore, take samples from the margin of the problem area where the plants are still living.

Sampling Container Either the special nematode sample container provided by Extension or a plastic bag



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

Station	City	Frequency	Morning Farm	Noon Farm
WABJ	Adrian	1490	5:45 am	12:15 pm
WATZ	Alpena	1450	5:30 am	12:15 pm
WPZA	Ann Arbor	1050	6:15 am	12:05 pm
WLEW	Bad Axe	1340	6:30 am	12:50 pm
WHFB	Benton Harbo	or 1060		12:30 pm
WKYO	Caro	1360	6:15 am	12:45 pm
WTVB	Coldwater	1590	5:45 am	***
WDOW	Dowagiac	1440	6:15 am	12:15 pm
WACY	Fenton	1160	6:15 am	12:15 pm
WGHN	Grand Haven		5:45 am	12:15 pm



can be used for nematode samples. Place samples in plastic bags as soon as possible. Nematodes will be killed if the sample is allowed to dry. It's important that nematodes are living when the samples reach the lab.

Soil and root samples should be regarded as perishable. Handle accordingly, and process as soon as possible. Ideally, they should be stored at 10-15C (50-58F).

Do not expose them to direct sunlight or store them in hot areas such as the trunk of your car. Temperatures greater than 40C (100F) will kill nematodes.

#### How to Submit Samples

Samples for nematode analysis are usually submitted through the local Extension office, accompanied by a completed form. The information requested on the form is essential for diagnosing nematode problems and proper recommendations for nematode management.

It generally takes two weeks from the time a sample is taken until the results are returned to the growers.

The rapid root and soil assays used for mineral soils, however, are not always satisfactory for analyzing organic soils. In a few cases, a bioassay that requires a 45-day incubation period is used to analyze organic soils

When this procedure is recommended, the growers will be immediately notified of the delay and will receive the results within two months after the sample was received.

#### **Results and Recommendations**

Sample results and recommendations are usually returned to the grower by the local Extension agent. The types and numbers of nematodes will be recorded on the assay form along with an indication of whether or not nematodes are a problem.

You will be referred to an appropriate Extension Bulletin for recommendations. Those recommendations should be discussed in detail with the local Extension agent or private consultant.

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

Recommended crop rotation sequences for reducing and maintaining soybean cyst nematode populations below damage levels. The system is based on risk levels identified from previous nematode samples.

and the second	Soybean Cyst Nematode Risk Level 1			
Year of Rotation	0 (None)	1 (Low)	2-3 (Medium)	4-5 (High-Extreme)
1st	Susceptable soybeans	Non-host	Non-host	Non-host
2nd	Non-host	Resistant soybean variety	Non-host	Non-host
3rd	Susceptable soybeans	Non-host	Resistant soybean variety	Non-host
4th	Non-host	Susceptable soybean variety	Non-host	Resistant soybean variety
5th	Susceptable soybeans	Non-host	Susceptable soybean variety	Non-host
6th	Non-host	Resistant soybean variety	Non-host	Non-host
7th	Susceptable soybeans	Non-host	Non-host	Non-host
8th	Non-host	Susceptable sovbean variety	Resistant or susceptable variety	Resistant or susceptable variety

WPLB Greenville 1380 6:15 am 12:45 pm 12:30 pm WBCH Hastings 1220 6:15 am 6:45 am 12:45 pm WCSR Hillsdale 1340 12:15 pm WHTC Holland 1450 \*\* 12:15 pm 590 WKZO Kalamazoo Lansing 1250 12:15 pm WJIM 5:05 am WWGZ 1530 12:15 pm Lapeer 12:15 pm 92.5 Newberry WNBY 6:15 am 12:30 pm WOAP Owosso 1080 **Rogers City** 7:10 am 12:15 pm WHAK 960 6:15 am WSJ St. Johns 1580 12:15 pm WMLM St. Louis 1540 6:06 am 12:20 pm 790 5:55 am 12:15 pm Saginaw WSGW Sandusky 660 6:15 am 12:45 pm WMIC 12:30 pm 95.9 5:45 am WKZC Scottville South Haven 12:15 pm WCSY 940 104.7 12:45 pm WKJC **Tawas City** WLKM **Three Rivers** 1510/95.9 6:15 am 12:15 pm WTCM **Traverse City** 580 5:55 am 12:40 pm

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

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

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

Some stations carry additional market reports throughout the market day.

<sup>1</sup> Risk level (0-5)based on results of nematode sampling

Michigan Farm News 1993 Ag Expo Extra!

# - Michigan Farm News Classifieds -

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### **Farm Machinery**

01

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09

August 30, 1993

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### NAFTA: What the Opponents Aren't Telling You! continued...from page 1

#### What they're not telling you:

Wage rates are a relatively small factor in the production and distribution of most agricultural products. Other factors taken together are much more important: labor productivity, resource availability, infrastructure, cost of capital, etc.

In all of these other respects, the U.S. agricultural sector has a decided advantage. Mexico will have an advantage in some products, but not in most (which is clearly demonstrated in virtually every study conducted on this question).

#### NAFTA opponents claim:

"Mexico allows the use of many pesticides banned in the U.S., including DDT. Mexico also allows crops to be sprayed with contaminated water. NAFTA will result in a less safe food supply in the U.S."

What they're not telling you: NAFTA makes no changes in U.S. food safety inspection requirements (NAFTA only phases out trade barriers, not border inspections). It is extremely unfortunate that DDT has been raised as a reason for opposing NAFTA. DDT on food is banned in Mexico, just as it is here.

Apparently, NAFTA opponents have begun a "DDT scare" because, according to the Governmental Accounting Office (GAO), the Mexican government is still authorized to use DDT in southern Mexico to control mosquitos that carry malaria. GAO found no reason for concern that this usage would affect food for export to the U.S.

And, to repeat, U.S. import inspections for all illegal residues, such as DDT, will not be impeded by NAFTA. Opponents are saying incorrectly that Mexico allows 58 pesticides banned in the U.S. In fact, the GAO has found that there are 58 pesticides where Mexico and the U.S. have set different tolerances or where there is a tolerance for a given crop in one country but not the other.

GAO found only six pesticides where Mexico has established a tolerance for products exported to the U.S. where the U.S. has no tolerance. In these cases, Mexican products must still meet U.S. tolerances upon inspection at the border. NAFTA will encourage Mexico to strengthen enforcement of its pesticide laws (which, according to the GAO, are already very similar to ours).

The quality of Mexico's water supply no doubt needs to be improved. Generally, more developed countries are better able to afford water purification systems. Improving Mexico's economy through NAFTA will advance this effort. Crops produced in Mexico for export to the U.S. market must comply with U.S. residue standards and, therefore, cannot be sprayed with contaminated water that would taint the product. Farm Bureau would oppose any weakening of U.S. food safety laws. On the contrary, we believe that NAFTA will result in safer food both here and in Mexico. of some farm products (potatoes and dry beans, for example) by introducing high tariffs where no tariffs currently exist."

What they're not telling you: NAFTA will establish a minimum quantity that Mexico will have to allow in duty-free in the future. This level will gradually increase until there are no longer any restrictions on imports of U.S.products.

The new system is less restrictive (even with some high initial tariffs in a few cases) and guarantees a minimum level of imports from the U.S. -- a guarantee that never existed before and which will expand in the years to come. In addition, the new system still allows the Mexican government to import more than the minimum level established each year to satisfy domestic demand, just as it always has.

Opponents have tried to make the minimum guarantee appear to be a maximum limit. They seem to be arguing that they would rather have the current import regime, under which the Mexican government can choose to import nothing at all (or, perhaps worse, to buy it all from other countries). This makes no sense. The high tariffs above the guaranteed quota are part of the import safeguard system to be used by both countries during the 10 to 15 year transition to free trade. The U.S. will have the same system for a number of products (e.g., peanuts, some winter vegetables and citrus). If we expect to use this safeguard mechanism for sensitive products, then we have to allow Mexico to use it, too. Indeed, the fact that Mexico identified potatoes and dry beans as two commodities that should use the safeguard system is further proof that Mexico cannot compete with U.S. producers and that U.S. exports will grow in the future.

#### NAFTA opponents claim:

"Support for NAFTA means many U.S. farmers will be forced out of business."

What they're not telling you: Farm Bureau supports NAFTA because it will help keep farmers in business. Unless we develop new markets abroad, U.S. agriculture will face downsizing at a rapid pace and more farmers will be forced off their farms. The NAFTA was drafted to maximize the length of the transition period for products that are sensitive to import competition.

Ten to 15 years should help many producers adjust to the new competition. We also believe that farmers should be eligible for any trade adjustment assistance program that the administration intends to implement.

#### NAFTA opponents claim:

"Maybe NAFTA will result in a net increase in U.S. jobs, but they'll be mainly low paying. Or the jobs created by NAFTA in the U.S. will be in high paying sectors, in which case, Americans in low paying jobs will be disadvantaged."

What they're not telling you: Opponents of NAFTA have used both arguments to criticize the agreement. Studies have shown that NAFTA will increase the number of jobs in the U.S. and that jobs created by exports tend to be higher paying

> Continued ... see NAFTA page 16

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NAFTA opponents claim: "NAFTA will drive down U.S. farm income."

What they're not telling you: Overall farm income will increase under NAFTA. Studies vary on the degree of income growth and in which commodities, but no major study has proposed that U.S. farm income will be reduced by NAFTA. Farm income in some selected commodities may be affected adversely, but most studies show that effect to be relatively small. Some opponents still refer to a Dallas Federal Reserve Report to make this claim. This report looked at hypothetical trade agreement in which the U.S. gave up all price support programs. It had nothing to do with the NAFTA.

NAFTA opponents claim: "NAFTA will actually reduce U.S. expo Representing:

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August 30, 1993

## 16 "NAFTA: What the Opponents Aren't Telling You!" continued...from page 15

and have better benefits than those competing with imports.

The most important export sectors (aircraft, construction machinery, computers, engines, scientific instruments, railroad equipment and chemicals) pay 12 percent above the national average. By comparison, the most important U.S. import sectors pay 16 percent below the national average wage, the only exceptions being steel and autos. The creation of more higher paying jobs in the U.S. is an advantage offered by NAFTA, not a reason to oppose it.

#### NAFTA opponents claim:

"U.S. firms will move their operations to Mexico to avoid strict U.S. environmental laws."

What they're not telling you: Mexico's General Law of Ecological Equilibrium and Environmental Protection enacted in 1988 is roughly the same as U.S. laws and regulations.

In 1992, the Mexican Congress created the Secretariat of Social Development, the

government ministry charged with environmental policy formulation and enforcement -- essentially the Mexican EPA.

The environmental hurdles that companies wanting to locate in Mexico will have to jump will likely be no lower than those in the United States.

Opponents say it does not matter if Mexico has strong environmental laws and regulations because they are not enforced. The track record of Mexican President Salinas suggests just the opposite.

Since Salinas took office, Mexico's environmental budget has increased 700 percent. The number of environmental inspectors has increased to more than 300. There have been suspensions of operating licenses and closures of 1,926 facilities for noncompliance with environmental regulations.

More than 100 facilities have been closed permanently in an attempt to curb pollution in Mexico City. These are not the actions of a country unconcerned with enforcement of environmental rules and regulations. In addition, the side agreement on the environment will provide for an enforcement mechanism.

In a proposal by a number of prominent environmental groups, the side agreement would result in the creation of a North American Commission on the Environment (NACE). One of its main functions will be to monitor the performance of countries in complying with environmental laws and regulations.

When complaints of abuse or non-compliance are made, NACE would investigate and suggest a course of action. A successful NAFTA will help Mexico continue to make progress in the area of environmentally sound resource management.

A Princeton University study indicates that pollution levels began to decrease in 42 countries when per capita GDP increased from \$4,000 to \$5,000. If NAFTA could boost Mexico's current GDP of about \$3,700, it undoubtedly will provide access to greater resources for environmental protection purposes.

### Erickson August MFB Volunteer of the Month



Wayne Erickson of Whittemore in Ogemaw County has been selected as MFB's August Volunteer of the Month for his efforts in recruiting students for Michigan Farm Bureau's Young People's Citizenship Seminar (YPCS). Wayne, who is 77 years old, currently farms 280 acres growing oats, corn, wheat and hay, in addition to milking 25 cows and raising 35 head of replacement heifers.

Wayne still finds time to serve on a number of Farm Bureau committees, and recently retired from the Ogemaw County Farm Bureau Board of Directors after serving a total of 24 years. He also serves on the Board of Review and is active in his church and a number of civic groups.

School Finance and Property Tax Reform – Legislators Continue Search for \$6.3 Billion in New Revenue

With the Legislature on a two-week summer recess, the discussion on school finance and property tax reform continues. Leadership and members of both the Senate and House have been meeting to

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develop concepts and details to improve education quality and funding equity.

"Most of the discussion at this time is focusing on the question of developing a high quality, affordable, efficient and effective K-12 structure," said MFB Legislative Counsel Ron Nelson. "A variety of ideas are being discussed and blended to satisfy a variety of needs and goals."

The funding of the new educational program will be influenced by the cost, according to Nelson. The funding alternatives are limited but include: diverting funding from other programs, reducing or eliminating tax credits and deductions, expanding the current tax base and increasing the tax rate.

"Decisions must be made soon," Nelson said. "The goal of many legislators is to develop a solution during this calendar year. Delays will only make the issue more difficult to solve. The discussion has begun and alternatives are being evaluated."