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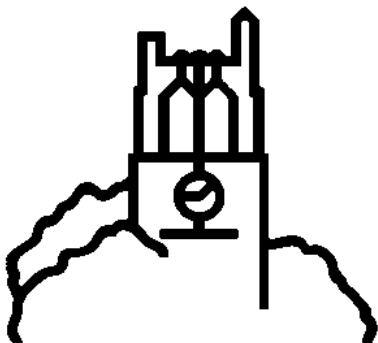
# ***Staff Paper***

## **2001 ANNUAL AGRICULTURAL OUTLOOK**

**Coordinated by  
Jim Hilker and Nicole Alderman**

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(45 total pages)

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## THE GENERAL ECONOMIC OUTLOOK

Les Manderscheid

One word summarizes the current outlook for the U.S. economy. That word is confusion. First, we review the recent behavior of the U.S. economy.

Ten years of economic expansion without a recession had led some to believe that we could have continual expansion without a recession. The year 2000 was the fourth year in a row with growth exceeding 4 percent and this was accomplished with relatively stable prices. unemployment was about 4 percent or below what many perceived as a sustainable rate of unemployment without rapid inflation. Stock market prices had increased and some consumers were spending their “new wealth.”

However, the stock market showed signs of weakness beginning in 1999. That weakness grew, especially for technology stocks and price volatility became much larger. Energy prices also increased in volatility with gasoline, natural gas and electric rates changing frequently except where highly regulated. The economy continued to show strength through much of the year in spite of these problems. Then a series of events led to a major shift in consumer attitudes which began in the final quarter of the year.

The shift appears to have begun in October as consumer surveys indicate that many feared for the future even though they were still employed and able to continue purchases. Uncertainty surrounding Presidential election and fears that an evenly divided U.S. Senate would lead to a paralyzed Federal Government combined with economic news to yield a poor holiday sales record. The pace of mergers and acquisitions increased fears of layoffs ahead. The fears were increased as layoffs were announced in the auto industry and retailers (for example, Montgomery Ward) closed their doors after a poor sales season. In January the Federal Reserve reduced interest rates dramatically. In fact, the January actions were the most aggressive since 1982 when the economy was in a deep recession. In contrast, the economy grew at a 1.4 percent rate in the fourth quarter of 2000. Sales of new homes increased by over 13 percent in December.

Where do we go from here? *The Wall Street Journal* had a recent heading “Amid New Signs of Gloom, Anxiety About Recession Could be Self-Fulfilling.” This heading captures the psychological nature of the current economic outlook. There are not sufficient economic reasons to expect a recession. But humans can decide to curtail spending in fear of a recession. There are many reasons for consumers to want to reduce credit card debt to avoid bankruptcy if an economic downturn is ahead. While this is a rational decision for an individual or family, the cumulative effect could be a recession. Our economic crystal ball is clouded by psychological concerns and we claim no magic insight this year.



## **PRESSURE ON INTEREST RATES SOFTENS**

Steve Hanson

Concerns about low commodity prices in the agriculture sector and inflation in the general economy combined to drive up interest rates in 2000. Table 1 shows the September 2000 rates for operating, feeder cattle, and real estate loans from commercial banks in the Seventh Federal Reserve District (Illinois, Indiana, Iowa, Michigan, and Wisconsin). The average interest rate charged on operating loans rose to 10.17% and the average rate on real estate loans was 9.42%, up a full percentage point from the previous year. No results were reported on the rates for loans by commercial banks in Michigan for September of 2000, but these rates typically run slightly above Seventh District average. Given the recent drop in both short- and long-term interest rates, it is likely that commercial bank loan rates for both operating and real estate loans have dropped from their September levels.

The late January 2001 loan rates offered by Farm Credit Services for Michigan loans reflect the recent general decline in interest rates. Table 2 presents current rates for select loan products where the range in rates is based on the credit quality of the loan using an internal score card. Operating loans are currently available at fixed rates ranging from 7.50% to 9.50%, while 30-year loans for real estate are available at fixed rates ranging from 8.50% to 10.00%.<sup>1</sup>

Interest rates in the general economy increased during 2000 as shown in Table 3. The federal funds rate, the interest rate the Federal Reserve Bank charges member banks to borrow funds, rose over 1% last year, but on January 31, 2001 dropped back to 5.5% signaling a clear shift in the Federal Reserve Bank's concerns about inflation and the health of the economy. The prime rate, which is the loan rate that banks charge to their best customers, rose to 9.50% last year, but followed the federal funds rate, dropping back to 8.5%. Both the federal funds rate and prime rate are short-term borrowing rates.

Interest rates on government securities are important "benchmarks" because they represent the borrowing rate for loans with different maturity lengths when repayment of the loans is essentially guaranteed. In particular, the T-bill rate is often cited as the "risk-free" borrowing rate. Because there is little risk of default, a major cause of differences between the rates on government loans with different maturity lengths is the expected level of inflation over time. In mid-January, if you compare the short-term rates on 90-day T-bills (5.13%), the intermediate-term rates on the 1-year T-note (4.79%), and the long-term rate on the 10-year T-note (5.08%) you see that the "yield curve" has a u-shape. This suggests that investors (lenders) believe inflation and interest rates will decline during the upcoming year and then increase slightly in future years. However, the flat nature of the yield curve suggest the expected changes in inflation and interest rates are somewhat modest.

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<sup>1</sup> These rates were set before the Federal Reserve's January 31, 2001 decrease in the federal funds rate.

As the general economy slows and the Federal Reserve takes action to try and revive it, look for interest rates to drop a little further during the year, especially for short term borrowing. Low prices for agriculture commodities may cause some borrowers and lenders to become more cautious in order to increase the likelihood of loan repayment. A concern among some lenders is the increasing reliance by farmers on government support programs to service their financial obligations. Look for these concerns to increase as we approach the 2002 farm bill which may change the benefits and/or structure of future support programs.

**Table 1. Commercial Bank Loan Rates**

<b>Loan Type</b>	<b>End of September 1999</b>	<b>End of September 2000</b>
<i>Seventh Federal Reserve District</i>		
Operating Loans	9.32%	10.17%
Feed Cattle	9.28	10.14
Real Estate	8.42	9.42
<i>Michigan</i>		
Operating Loans	9.90	na
Real Estate	8.90	na

**Source:** Federal Reserve Bank of Chicago. The na not available.

**Table 2. Farm Credit Services Loan Rates**

<b>Loan Type</b>	<b>Late January 2000</b>	<b>Late January 2001</b>
Operating Loans (fixed)	9.30-11.30%	7.50-9.50%
Intermediate Loans		
5-year (adjustable)	9.70-11.70	7.85-9.85
5-year (fixed)	9.35-11.35	7.50-9.50
Real Estate Loans		
1-year (adjustable)	8.15-9.65	6.35-7.85
3-year (adjustable)	8.65-10.15	6.75-8.25
30-year (fixed)	9.70-11.20	8.50-10.00

**Source:** GreenStone Farm Credit Services.



**Table 3. Key U.S. Interest Rates**

<b>Rate Type</b>	<b>Mid-January 2000</b>	<b>Mid-January 2001</b>
Federal Funds Rate	5.68%	5.91%
Prime Rate	8.50	9.00
90-Day CD	5.96	5.58
90-Day T-Bill	5.26	5.13
1-year T-Note	6.12	4.79
10-year T-Note	6.66	5.08
30-year T-Bond	6.66	5.50
Corporate Bonds (AAA)	7.80	7.13
Conventional Mortgages	8.18	6.89

**Source:** Federal Reserve Bank of Kansas City.



## **TRADE AND POLICY OUTLOOK**

David B. Schweikhardt and Sandra S. Batie

The continued recovery of the Asian economies, combined with continuing increases with the United States' trade partners in North America, will dominate the outlook for U.S. agricultural exports in 2001. As the economic situation in Asian countries eroded between 1997 and 1999, U.S. exports to the region declined sharply. These countries begin to experience slow growth in their economies in the last half of 1999, and analysts expect this modest growth to contribute to a slow recover in U.S. exports to the region in 2001. Canada and Mexico are also expected to increase both their purchases of U.S. food products and their exports of food products to the United States in 2001.

### **U.S. Agricultural Trade Outlook**

U.S. agricultural exports are expected to increase tot \$53 billion in 2001, an increase of \$1.1 billion over 2000 (Figure 1). Export volumes are expected to remain steady or increase for several commodities compared to 2000. The export volume of wheat is expected to increase from 27.8 million tons in 2000 to 28.7 million tons in 2001. Corn exports are expected to increase to 57 million tons for 2001, compared to 47.3 million tons in 2000. Soybean and soybean meal exports are expected to remain steady compared to levels recorded in 2000.

Exports in other product categories are expected to have a mixed outlook for 2001. Beef and pork exports are expected to increase by \$200 million to \$5.2 billion in 2001. Poultry exports, at \$2.2 billion, and dairy exports, at \$900 million, are expected to remain unchanged in 2001. Fruit and vegetable exports are expected to increase by \$400 million to \$10.9 billion. Much of this increase in the value of fruit and vegetable exports is expected to occur in shipments to Canada and Mexico.

U.S. agricultural imports are expected to reach \$40 billion in 2001, or \$1.1 billion greater than in 2000. Increased imports of horticultural products will account for most of this increase, with fruit and vegetable imports increasing by \$600 million to a projected \$16.4 billion. Canada (\$8.8 billion) and Mexico (\$5.3 billion) are projected to continue as the two largest suppliers of U.S. agricultural imports.

The recovery of those countries affected by the Asian financial crisis is expected to contribute to the increase in the value of U.S. agricultural exports in 2001. Despite the lingering effects of the crisis, Asia (\$21.2 billion) is projected to retain a slight edge over the Western Hemisphere (\$19 billion) as the largest regional market for U.S. exports. The value of U.S. agricultural exports to the Asian region declined from \$26 billion in 1996 to a projected \$18.4 billion in 1999, accounting for nearly two-thirds of the decline in total U.S. agricultural exports experienced during this period.

Japan remains the largest customer for U.S. agricultural exports, purchasing a projected \$9.8 billion from the United States in 2001. Canada will continue as the second largest customer at \$7.8 billion, and Mexico will continue as the United States' third largest export market at \$6.8 billion, or \$500 million greater than in 2000. This trend continues the growth of U.S. agricultural

exports to Mexico since the implementation of the North American Free Trade Agreement (NAFTA). U.S. exports were \$3.6 billion in 1993, the year prior to the approval of NAFTA, and have increased in each of the last 5 years.

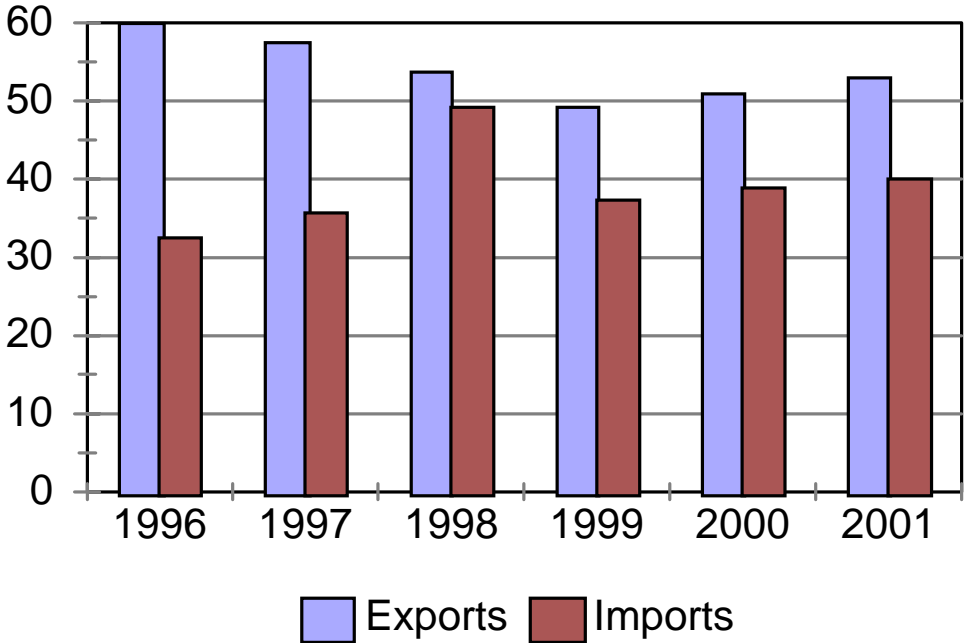
### **Trade and Domestic Policy Outlook**

With low prices for farm products expected to continue pressuring farm income, and little reason to expect rapid improvements in the income outlook, Congress is beginning the process of writing the 2002 farm bill. While this debate is likely to generate headlines in 2001, it is unlikely that Congress will be able to complete the revision of the farm bill this year. Consequently, farmers can expect to continue operating under the rules of the 1996 farm bill for 2001 and 2002.

As in the past three years, however, producers can expect Congress to modify the payment structure in 2001. In each of the past three years, Congress increased the scheduled payments on Production Flexibility Contracts (PFC) by 50 to 100 percent and provided other emergency measures in an effort to support farm income. With PFC payments scheduled to decrease in 2001 under the original Freedom to Farm legislation (corn payments are scheduled to decrease from 32 cents per bushel in 2000 to 26 cents per bushel in 2001, and wheat payments are scheduled to decrease from 57 cents per bushel in 2000 to 46 cents per bushel in 2001), Congress is likely to take additional emergency measures in 2001. There is likely to be continued debate over the question of whether loan rates should be increased, whether payments should be provided as increased PFC payments, and whether existing government programs should be extended to producers of other products. While the outcome of that debate is uncertain, particularly once a full-fledged debate on the future of farm programs begins in 2002, it is reasonable to expect that Congress will provide an increase in payments this year that will be approximately as large as the emergency payments made in 2000.

A new round of multilateral trade negotiations began under the auspices of the World Trade Organization with the ministerial planning meeting in Seattle in November 1999. The purpose of the meeting -- to establish an agenda for the next round of negotiations -- was not fulfilled because the negotiators could not reach agreement on the language defining the agenda for many issues, including agriculture. Negotiators disagreed about the size and speed of further reductions in agricultural export subsidies and trade barriers, the role of environmental issues in trade negotiations, and whether to include all commodities in the negotiations or to focus on selected commodities.

**Figure 1. U.S. Agricultural Trade**  
(Billion Dollars)





## **2001 OUTLOOK FOR PRODUCTION INPUTS**

Chris Peterson

The dominate news about 2001 production inputs comes from the energy markets. Unfortunately, these markets are delivering a double blow to expectations for farm profitability-- the direct impact of high fuel prices on the farm and the indirect impact of high natural gas prices calling a key feedstock away from the production of nitrogen for fertilizers. A secondary effect will likely be more acres converted to soybeans and away from nitrogen-hungry corn, and here the seed supply is tight and of seemingly questionable quality. It would appear that none of these conditions will reverse themselves any time soon.

### **Fertilizer**

Nitrogen supplies are tight across the board and prices are up to 100% higher than last year at this time. Why? Natural gas is more valuable in other applications than in the production of nitrogen for fertilizers. Natural gas is directly used in home and industrial energy applications, increasingly as a fuel of choice for electric utilities (particularly in peaking capacity), and as a major source of MTBE, the controversial oxygenate in gasoline. These alternative applications have made natural gas use for fertilizers unprofitable enough that 10% of the fertilizer conversion capacity has been shut down in the country with prospects that up to 10% additional capacity may shut down.

Imports of nitrogen sources, such as, ammonia, have been on the rise recently, but it is unclear that this is enough to reverse the trends. Consolidation in nitrogen supplies may have also contributed to the problems. For example, over the last three years the number of suppliers in the Bay City area has gone from six to one.

Even though supplies are tight and prices high, local providers with adequate storage for their normal customer base will be in a position to meet most demand. However, spot shortages may be likely, most especially if the planting season comes on all at once across the country rather than roll out slowly from south to north. Transportation bottlenecks may also have impact in season, particularly supplies coming in by rail.

Producers, nudged by their bankers, may continue the shift out of corn to more soybeans. This move is also made more likely by the LDP situation. However, there are only so many acres for which the move to soybeans will make sense. For those acres staying in corn, producers are not likely to make major cuts in nitrogen use. Yield is critical to maintaining the LDPs, and other input costs will probably be cut first or farm capital expenditures delayed to compensate for the nitrogen cost.

### **Energy**

If nitrogen supplies and prices are the indirect result of energy problems, petroleum prices on the farm will have direct impact. OPEC has recently decided to trim crude-oil production again. This time by 1.5 million barrels a day. The new Bush administration would like to see more domestic exploration, but that change in policy will have no real short-term impact. Fuel supplies

will likely be there for on-farm production, but prices are forecast to be higher again moving into the summer.

## **Seeds**

With one exception, all categories of seed appear to be in ample supply with little change in prices. The one exception is soybeans. Two forces are at work here. First, demand for soybean seed is expected to be high. The nitrogen situation will drive some additional acres into soybeans. In addition, low dry bean prices have producers thinking soybeans instead of dry beans. Yet another wild card is the sugar beet situation in the state. If producers for Michigan sugar do not plant sugar beets, that acreage will move into other crops, especially soybeans. All variety of soybeans, round-up ready, traditional, and food-grade, are in tight supply due to these demand conditions.

The second force at work is the quality of supplies. Last year was not a good growing season for soybean seed across the country. As a result, high quality seeds are especially hard to gain access to. Low germination seed is coming onto the market, in some cases with germination rates of 80% or below. The vigor of some of these seeds may also be in question.

To date, the price of soybean seed has not seemed to be an issue. At least for pre-pay seeds, prices have been stable and comparable to last year. Given the demand and supply situation, prices would naturally be expected to rise. Some very recent market movements suggest that seed companies will be raising prices soon.

## **Chemicals**

The only good news in this outlook is the lack of news about agricultural chemicals. Supplies are more than adequate with intense competition among suppliers likely to keep downward pressure on prices.



## **GROWTH RATE IN FARMLAND VALUES EXPECTED TO SLOW IN 2001**

Steve Hanson and Gerry Schwab

Michigan farmland values posted strong gains again in 2000, continuing their string of year-to-year increases. The annual land value survey conducted in spring 2000 by the Department of Agricultural Economics at Michigan State University found average farmland values to be:

Tiled field crop land	\$1,729 per acre (up 9.2% from previous year);
Untiled field crop land	\$1,459 per acre (up 8.7%);
Sugarbeet land	\$1,913 per acre (up 2.5%);
Irrigated land	\$2,175 per acre (up 6.5%).

Consistent with the Michigan State study, a Federal Reserve Bank of Chicago survey of agriculture bankers found the average value of Michigan farmland rose 8% from October 1999 to October 2000. Last year's gains marked the 14<sup>th</sup> straight year of increases in the average value of Michigan farmland values. According to USDA statistics, the last time farmland values in Michigan experienced a year-to-year decline was January 1986-1987.

Cash rent rates exhibited little change during the last year. Forty-six percent of total crop acres were controlled through leasing arrangements, with 78% of the leased land operated using cash leases. The average cash rent levels in the state were:

Tiled field crop land	\$78 per acre;
Untiled field crop land	\$55 per acre;
Sugarbeet land	\$119 per acre;
Irrigated land	\$135 per acre.

Additional details on land values and cash rents across the state are reported in Department of Agricultural Economics Report No. 604 on *2000 Michigan Land Values* and will be available in a forthcoming MSU Extension Bulletin.

Michigan farmland values are influenced by both the agriculture and non-agriculture sectors. Current and projected reductions in economic performance in both sectors suggest a softening in the expected growth rate for Michigan farmland values this year. Low prices in 2000, and expected for 2001, for many Michigan produced crops should dampen demand for land in 2001. According to TelFarm data<sup>1</sup>, net farm incomes in 1999 for cash grain farms in Michigan would not have been positive without the contribution of transfer payments (e.g. loan deficiency payments and production flexibility contracts) from the federal government. The relatively large contribution of government payments to net farm income is raising increasing concern about farmers relying on income from government support programs to remain economically viable. As we near the next farm bill in 2002, increased uncertainty over the form and amount of subsidy provided by government programs may further dampen the demand for farmland.

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<sup>1</sup>FIRM Team, S. B. Nott, "1999 Business Analysis Summary for Cash Grain Farms", Staff Paper 2000-29, Department of Agricultural Economics, Michigan State University, August 2000.

Michigan farmland prices are also heavily dependent on the non-agriculture sector. Despite the continued low unemployment rate and low interest rates, there are clear signs that growth in the general economy is rapidly slowing. Reported declines in many corporate earnings during fourth quarter 2000, recently announced layoffs in the automotive and high-tech industries, a clamor for the Federal Reserve System to lower interest rates are all indicators that the general economy is not growing at the rapid pace of the last half of the 1990's decade. As non-farm income growth slows, the demand for farmland to transition from farming to non-agriculture uses such as residential development, recreational uses, and commercial development will soften. A decline in the demand for farmland for non-agriculture uses is expected to slow the growth rate in farmland prices across the state. As a large number of Michigan farmers and/or spouses have off-farm jobs, a slowing in the non-farm economy could reduce the off-farm income that supplements farm income which may further dampen the demand for farmland.

Given the current economic conditions in the state and the recent strong growth in land values, look for farmland prices in Michigan to rise at a more modest level this year. If farm incomes and returns on farm investments remain low, uncertainty about future government price supports is not clarified, and the general economy moves into a recession, Michigan could experience both agriculture and non-agriculture forces exerting significant downward pressure on the demand for land. If this happens expect to see a leveling off in the average price for farmland. Of course, you can expect to see some regional variation in the growth rate of farmland values depending on which commodity provides the major source of income in region as well as the strength of non-farm economy in the region.

## **GRAIN OUTLOOK**

Jim Hilker

After 19 years of writing both bimonthly outlooks and annual outlooks I am convinced I am better looking 12-18 months down the road than two weeks. Maybe that is because I have a selective memory of what I said last year, or maybe it is because the readers are kind enough not to remind me what I said. That ought to be enough to scare you right off the bat, and that is probably good, because the information I am using to forecast the next 18 months is very incomplete. However, that is only because the world is in a state of change, versus not using the information available. But we will produce crops this next year and the next, so it is important to have a baseline.

### **Corn 2000-01**

The numbers for the corn outlook are shown on Table 1 in the columns for the marketing/crop years 2000-01 and 2000-02. The bottom line is that corn prices will not average much different this crop year than last year, not very good, and without a weather occurrence the average price will likely be only slightly higher next year. However, there is a high likelihood that corn prices will be quite volatile as we go through both years.

Corn acres planted last year were up from the previous year as most of the cornbelt had an early planting season. Corn yields last fall were just under trend and we ended up with just under a 10 billion bushel crop. Add this to nearly 20% of the previous year crop, and for the third year in a row total supply was over 11 billion bushels.

With total animal units up slightly, feed being cheap, and other feedgrain supplies being down we expect to use a record amount of corn for feed in 2000-01. Food, seed, and industrial uses are expected to be up as usual, but at a slower rate than the past few years. Ethanol use is expected to be up 6%, but high fructose corn syrup is only expected to be up 2%.

Exports are expected to be up over 10% as China cuts back on their record exports last year due to a poorer crop and their want to join the WTO. However, this number is still in flux as we wait for the date of China's WTO entrance and the continuing Starlink saga. At this point exports are lagging from last year, but they are expected to pick up from this point on.

Total use is expected to grow 4%, but ending stocks will still grow due to the huge supply. Ending stocks as a percent of use are expected to be 18.3%, just slightly higher than last year, but last year we had low prices.

### **Corn 2001-02**

Last year at this time there was a question of very low subsoil moisture across the cornbelt, this year there is the question of either/and low supply/high prices of nitrogen fertilizer(See Input Supply Outlook). This analysis assumes that corn acres will be cut back about 2 million acres this spring. However, notice that this still keeps us at levels of 2 years ago. Most of the cutback will probably be in application rates, and I lowered the trend yield used by ½

bushel per acre. These numbers would still give us a huge crop, and when combined with beginning stocks would give us the fourth year in a row of 11 billion bushel plus supplies.

Feed use is expected to only increase marginally as animal consuming units increase a bit, wheat fed decreases, but supplies of other feed grains recovers. Food, seed and industrial uses are expected to continue growing at about 3%, led by ethanol use. Exports are forecast to drop off some from this year but still stay at a decent level. This assume China has a normal yield on a few less acres and the rest of the world has trend yields. The above leaves total use about the same.

This scenario would indicate marginally lower ending stocks that would lower the ending stocks to use ratio. This would indicate a dime increase in average price. However, the risk in the market is substantial. There is about a 10% chance prices could be under \$1.50 and a 10% chance prices could be over \$3.00.

### **Wheat 2000-01**

It is pretty clear over half way through this marketing that ending stocks will be lower than the last two years. However, they will still be a whopping 814 million bushels, 33.2% of use. On the other hand, world stocks are projected to be just over 18% of use, relatively tight. The problem is, most of the stocks are held by three very reliable suppliers, the U.S., Canada, and Europe, so the world does not seem worried. But that does mean that with any major world production problem, we may be out of the oversupply problem.

The numbers for the 2000-01 wheat outlook are shown in Table 2. Total supplies were down, total use is projected to be up, and ending stocks down. The stronger use comes from all areas. Wheat for food use is up 20 million bushels, a healthier raise than normal. Feed use is up, mostly do to quality problems. And exports are up marginally. Every little bit helps. But while U.S. prices are projected to be up a little, it appears Michigan prices will just hold there own.

### **Wheat 2001-02**

There may be some reason for some optimism for 2001-02 wheat prices. Producers planted 2 million acres less winter wheat this past fall. That alone with a trend yield would help prices considerable. However, it is expected ½-1 million more spring wheat acres will planted now that prices have recovered a little. The numbers for this analysis are shown in Table 2. Total wheat acres planted are down 1.5 million acres, with average abandonment, and trend yields would leave the crop down 3%, 70 million bushels. This along with the 136 million bushel smaller beginning stocks and we start to make some progress. Total supply is projected to be down over 200 million bushels.

On the use side it is a split bag. Food use would be expected to go by about population growth, 1%. Exports are forecast to go up 2%, with world demand for wheat expected to grow faster than in the U.S.. The down side is wheat used for feed. As long as the food quality is there, higher relative wheat prices to other feedgrains would mean less wheat fed. This would leave total wheat use near last years levels.

If this scenario plays out, ending stocks would drop another 200 million bushels and ending stocks as a percent of use would drop to 25%. As shown this would mean much better wheat prices than we have been seeing. The question for Michigan is, will the spread between Michigan and U.S. price go back towards 30 cents or stay near 50 cents?

This puts us right on the border line. If we have just a little larger abandonment, a little lower yield, and a little bigger increase in exports and we could get back to good wheat prices. If the opposite occurs, we could go right back into the doldrums.

### **Soybeans 2000-01**

As shown in Table 3, acreage was up, yields were up, and thus production was up. Thank goodness beginning stocks were down. However, you add it all up and total supplies were still up 2%, nearly 60 million bushels. Remember, the U.S. had relatively poor yields in 1999 and we still had poor prices.

Crush for 2000-01 is expected to up 1.3%, but this is all coming from an expected increase in domestic use. Meal exports are having trouble holding their own and will probably decrease some. That is what happens when South America has its 5<sup>th</sup> good crop in a row. However, on the optimistic side, world want of soybeans continues to grow. The U.S. is expected to export as many soybeans this year as last despite the run of good South American soybean crops; and despite what looks like another record crop to be harvested in South America in the next couple of months. The largest factor in our strong exports is Chinese demand.

Bottom line, use up, but only 70% of what supplies were up. This means more ending stocks in total, and in percent of use. And that means no price recovery. To see good soybean prices from now through the next harvest would mean a crop shortfall in the U.S..

### **Soybeans 2001-02**

If we plant less corn and less wheat, it means we plant more soybeans. And why not, the soybean loan rate covers enough of the costs to make it a good economic decision to plant, no matter what the oversupply situation may be. Two million less acres of corn, one and a half million less acres of wheat, means AT LEAST 2.3 million more acres of soybeans. The numbers are shown in Table 3 in the last column. This also assumes more acres of other feedgrains.

Using a trend yield of 38.2 bushels per acre, we had over 41 in 1994, and we come up with a production number over 100 million bushels more than this past year. Add this to beginning stocks that are 30 million bushel larger than last year and we have soybeans coming out our ears. I should probably just stop now, but let's struggle through anyhow, there is always the loan rate.

Crush would be expected to increase marginally with lower prices and perhaps few more livestock units. Exports should continue to grow as long as the world economy keeps growing and South America doesn't have another record crop. This should provide for a healthy increase in use, but unfortunately it doesn't come close to making up for the increase in supply. My price forecast shown on Table 3 is probably optimistic if this scenario plays out.

**TABLE 1**  
**SUPPLY/DEMAND BALANCE SHEET FOR CORN**

	Est. 1999-00	Proj. 2000-01	Hilker 2001-02
	(Million Acres)		
Acres Planted	77.4	79.6	77.6
Acres Harvested	70.5	72.7	71.0
Bu./Harvested Acre	133.8	137.1	138.0
	(Million Bushels)		
Beginning Stocks	1787	1718	1806
Production	9431	9968	9798
Imports	15	10	11
Total Supply	11233	11696	11615
Use:			
Feed and Residual	5665	5775	5800
Food, Seed, Ind.	1913	1965	2020
Total Domestic	7578	7740	7820
Exports	1937	2150	2050
Total Use	9515	9890	9870
Ending Stocks	1718	1806	1745
Ending Stocks, % of Use	18.1	18.3	17.7
Regular Loan Rate	\$1.89	\$1.89	\$1.89
U.S. Farm Price, \$/Bu.	\$1.82	\$1.85	\$1.95

Source: USDA and Jim Hilker.

**TABLE 2**  
**SUPPLY/DEMAND BALANCE SHEET FOR WHEAT**

	Est. 1999-00	Proj. 2000-01	Hilker 2001-02
	(Million Acres)		
Acres Planted	62.7	62.5	61.0
Acres Harvested	53.8	53.0	52.0
Bu./Harvested Acre	42.7	41.9	41.4
	(Million Bushels)		
Beginning Stocks	946	950	814
Production	2299	2223	2153
Imports	95	95	93
Total Supply	3340	3268	3060
Use:			
Food	925	945	955
Seed	92	84	90
Feed and Residual	283	300	250
Total Domestic	1300	1329	1295
Exports	1090	1125	1150
Total Use	2390	2454	2445
Ending Stocks	950	814	615
Ending Stocks, % of Use	39.7	33.2	25.1
Regular Loan Rate	\$2.58	\$2.58	\$2.58
Season Average Farm Price			
U.S. \$/Bu.	\$2.48	\$2.65	\$3.40
Michigan \$/Bu.	2.15	2.15	2.90

Source: USDA and Jim Hilker.



**TABLE 3**  
**SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS**

	Est. 1999-00	Proj. 2000-01	Hilker 2001-02
	(Million Acres)		
Acres Planted	73.7	74.5	76.8
Acres Harvested	72.4	72.7	75.5
Bu./Harvested Acre	36.6	38.1	38.2
	(Million Bushels)		
Beginning Stocks	348	290	320
Production	2654	2770	2882
Imports	4	3	3
Total Supply	3006	3063	3205
Use:			
Crushings	1579	1600	1615
Exports	973	975	1020
Seed, Feed and Residuals	164	168	170
Total Use	2716	2743	2805
Ending Stocks	290	320	400
Ending Stocks, % of Use	10.7	11.7	14.3
Regular Loan Rate	\$5.26	\$5.26	\$5.26
U.S. Farm Price, \$/Bu.	\$4.63	\$4.60	\$4.40

Source: USDA and Jim Hilker.



## **MICHIGAN SUGARBEET OUTLOOK**

Jake Ferris

The Michigan Agricultural Statistics Service estimated the 2000 sugarbeet crop in the state at 3.4 million tons, about 4 percent smaller than in 1999, but well above average for the past couple of decades. The average yield of 20.5 tons was the highest since 1990. The sugar content, at about 18 percent, was also welcome. Not so pleasant, however, has been the sugar market. Final payment to growers on the 1999 crop brought the total to just under \$33 per ton. This compares with \$36.70 per ton on the 1998 crop and \$38.50 per ton on the 1997 crop. Between the fall of 1999 and the fall of 2000, midwest beet sugar prices dropped from about 26 cents per pound to 22.5 cents per pound, a 14 percent decline.

Supplies of domestic sugar have been increasing bringing ending stocks for the 1999 crop year up to 2,219 thousand short tons, raw value (STRV). Of this amount, the CCC has acquired 297 thousand STRV to support the market. The stock level represents 22 percent of utilization, compared to 16 percent the year before.

In August, the USDA offered a Payment-in-Kind (PIK) program which allowed producers to bid for removing acreage. Their companies would receive CCC sugar inventories which represented the PIK. As a result, U.S. sugarbeet area fell about 7 percent from the September forecast and production was estimated to be about 6 percent lower as the result. In Michigan, 12,242 acres were accepted for the PIK diversion program, about 6.5 percent of the planted acres. U.S. beet sugar production from the 2000 crop was estimated to be 4,370 thousand STRV, down 12 percent from 1999. The USDA projects that ending stocks for the 2000 crop year will drop to 1,987 thousand STRV, about 19 percent of utilization.

Sugar prices appear to have stabilized and may strengthen some in the coming season. However, rising processing costs related to natural gas prices may be offsetting. Even so, the sugarbeet enterprise will remain as an attractive alternative considering the profit levels of other crops. A question remains as to whether a PIK program will be offered in 2001. Another important unknown for plantings this spring is the status of the Michigan Sugar Company. Michigan Sugar and its parent, Imperial Sugar, recently filed for bankruptcy.



## **FARM MANAGEMENT IMPLICATIONS FOR GRAIN PRODUCERS**

Gerry Schwab

The year 2000 was a unique year. This year 2001 will also be a very unique year in ways that we can not now know. That is the continual challenge for management - to make decisions with imperfect knowledge about the future.

### **History**

Last year much of Michigan had two Spring planting seasons with mid-May rains splitting early planting in April-May from late planting in late May-June. Cooler than normal summer temperatures but generally adequate rainfall resulted in good yields across Michigan but lower than the record yields produced in 1999 for the commodities of corn grain, corn silage, dry beans, soybeans, potatoes, rye and winter wheat. Price expectations for many commodities were somewhat buoyant in Spring 2000 based on drought forecasts for the Midwest. Prices subsequently broke in mid-May and trended downward into fall harvest as timely rains occurred across the Midwest to result in the wettest drought ever. So what did we learn from past experience and what do we now know about the decision-making climate for 2001? For those bushels that were forward priced by early May 2000, combined with loan deficiency payments at harvest; the total dollars received per bushel could have been in the neighborhood of \$6/bu soybeans and \$2.25/bu corn.

### **General Comments**

Management decisions include production, financial and marketing. These decisions can be categorized into **strategic** decisions and **tactical** decisions. Strategic decisions can be thought of as deciding upon the right thing to do; e.g. expanding farm size, machinery technology to employ, refinancing when interest rates decrease, etc. These are decisions that are infrequently made but have consequences for a long period of time. With the low grain commodity prices currently being projected for 2001 and beyond, a strategic decision might address the competitiveness of your farm in the commodity business. Commodity growers producing a crop that is not different from your neighbors need to compete on "cost of production". Land prices discussed elsewhere in this edition, can be a significant factor in determining whether your "cost of production" allows you to successfully compete in the commodity business. As machinery investment costs continue to escalate, the chosen "strategy" might be to increase acreage to distribute the fixed costs over more acres. Increasing fuel costs might encourage moving to reduced tillage strategies. The warning label here is to do your budgeting to evaluate the decision. Profitability is the key that permits the farm business to grow net worth, to pay bills and cash flow, and to enable a good night's sleep.

## Tactics in 2001

Information updates throughout the year are one key to the decision-making process. Evaluate your cropping and marketing alternatives to determine your best bets on achieving profitability. This budgeting process requires information sources on product prices and input costs. Information sources might include various input suppliers, grain merchandisers, crop insurance representatives, Farm Service Agency, financial sources, consultants, and MSU Extension. Access to and use of the Internet should play an increasing role in being well informed on events that influence the success of your business. Information access for your business can now be 24/7 - 24 hours a day, 7 days a week.

The need for planning and risk management is often stated. What to plant and what inputs to use should be evaluated by doing some budgeting. The nitrogen question is a big concern currently being expressed by many. With anhydrous ammonia prices in the \$400/ton neighborhood, high nitrogen use crops will have higher costs than last year and be less competitive with legume crops. Determining how much nitrogen to use requires an estimate of yield response to nitrogen and an estimate of the price of the product. For example, how much nitrogen to apply on corn? Think of applying nitrogen in 10 pound per acre increments. Pricing anhydrous at \$400/ton or almost \$0.25/lb N results in a cost of \$2.50/10 pounds nitrogen. Is the net increase in value from increased corn sufficient to pay for the nitrogen? Divide the increased cost of nitrogen per acre by an expected net price of corn after hauling and drying to determine the breakeven increase in yield. Using a net price of \$1.50/bu corn would result in a requirement of 1.67 bu of corn per 10 pounds of nitrogen. The corn response to nitrogen on Michigan farms should far exceed this level when nitrogen application rate is in the agronomic range of crop removal. This marginal analysis of looking at only what changes should help resolve how much nitrogen should be applied. Preliminary corn production function analysis conducted in conjunction with comparison of the corn:nitrogen price ratio suggests about a 10% decline in recommended N rate for a producer who was applying 180 lbs N on 160 bu/acre corn ground. Because crop loans and the loan deficiency payments received are driven by the bushels produced, high yield goals may still be appropriate. Apply crop inputs up to their financially viable levels which in year 2001 may still be a yield goal only slightly lower than in past years when variable input costs were lower. If N supply is limited; your solution may require shifting some acres out of corn, and applying N at a 10% reduced level on all remaining acres.

Knowing your net worth and how much you can afford to risk is another early step in developing a plan for your farm business. Crop insurance to provide some protection from the financial impact of low crop yields may be another piece of the plan. The Agricultural Risk Protection Act of 2000 has increased the subsidy on farm premiums for 2001 in order to encourage higher coverage using one of the various multi-peril, crop revenue coverage, or revenue assurance policies. The deadline for Michigan farmers to make a crop insurance decision on spring planted crops is March 15. The time to gather information is now. The income support from the USDA production flexibility contract will be less in 2001 and is scheduled to be phased out in 2002. You need to plan on taking charge of your own situation by being well informed and conducting some financial analysis of the alternative before you.

MSU Extension is partnering with various agricultural representatives to conduct educational sessions on risk management. The following web site <http://www.aec.msu.edu/agecon/blackj/NERRisk.html> has a calendar for scheduled workshops. Additionally, the farm management FIRM Area of Expertise team is offering financial workshops across Michigan. The schedule for these workshops can be found at <http://www.msue.msu.edu/aoe/firm/workframe.htm>.





## **ANNUAL LIVESTOCK OUTLOOK**

Jim Hilker

### **Cattle**

Beef production was up 1.5% in 2000, cattle prices were up 6.4%. This says that beef demand increased last year for the second year in a row. All else held constant; you would expect prices to fall when production increases, unless there are some factors that counteract it. For example, if incomes go up we tend to buy more even if prices stay the same. In the case of the last two years, beef demand has increased faster than the increases in income would suggest. This would indicate that tastes and preferences for beef have improved. What makes this all the more exciting is the fact that it went in the opposite direction for the previous 20 some years. The below outlook assumes that this change will remain in the market, but at a slower growth rate due to the economy slowing down.

The January 1 Cattle Inventory Report showed total cattle and calves down 1%. The 2000 calf crop was down slightly. With good cow-calf returns since 1998, this would indicate that expansion should be in the wings despite 1% fewer beef cows calving last year. Beef cows kept for replacements were up 2%. This will put even more pressure on feeder supplies.

This clearly shows there will be less beef production in 2001. How much depends on weights. Cheap feed would indicate heavier weights, but the weather will play a role as to how much weights will be up if any. Lower production and strong demand are a good combination for very good prices. I say this to make it clear there is upside potential. On the other hand, the forecasts below will take a middle of the road approach due to the slowing economy and the huge spread between beef and pork prices, which is not liable to go away.

First quarter production is expected to be down about 1-2%, this should allow choice steer prices to average in the high \$70 range per hundredweight for the quarter. Second quarter production is expected to be down 3%. This should allow prices to reach the low \$80 for a while before starting to fall off midway through the quarter and once again averaging in the high the high \$70's for the quarter.

Beef production in the third quarter is expected to be down 4-5% from last years huge third quarter production, and prices are likely to drop back off in the low \$70's. While this is a sharp price drop, it is significantly better than the \$65 we averaged in the third quarter of 2000. Fourth quarter production is expected to be down over 5% relative to the fall of 2000. This should bring prices back up into the \$75-80 range.

Cow-calf operations should have another good year with prices in the range of this year. Whether or not feedlots have a good year despite the low feed prices and good fed prices, is how much they had to pay for feeders. My estimate for net returns to feedlots is that they will be tight this year, unless demand grows at last years rate and is not affected much by the economy.

## Hogs

Pork demand has been good for the past two years, although we did not see the sharp increase at the retail level that we saw for beef. Pork production for the year is expected to be up 3-4% for the year, with most of the increase coming after the first quarter. The annual average 2001 price is expected to be around \$38-40 per cwt, relative the 2000 average price of \$44 per cwt.

It appears that pork production will be up about .5-2 percent for the first quarter of 2001 relative to the first quarter of 2000. This should give us an average price for the quarter of \$37-39 per cwt. relative to last year's \$40 per cwt.. Second quarter production is expected to be up around 3%. This would lead to prices in the \$43-45 range, relative to last year's average second quarter price of \$49.

Third quarter production is expected to be up 5-6%, relative to 2000. This will drop prices into the \$37-40 range, relative to last year's \$45. Fourth quarter slaughter is projected to be up 2%, this should keep us from reaching slaughter capacity as long as no more slaughter plants shut down. It also means production may be up closer to 3-4% dropping prices into the mid \$30's.

The hog industry has had efficiency gains around 3% for the past few years. This says we could have 3% more production without any more sows. Just that alone could cause us to hit present slaughter capacity by the fall of 2002. The question becomes, will we continue to increase sow numbers over the next 8 months as prices remain above costs?

## **ISSUES AFFECTING LIVESTOCK PRODUCERS**

Laura Cheney

Just when you think you have a grasp of how traditional cattle and hog cycles will affect your operation, factors outside of these price cycles come along to shake things up. Currently, those factors include such issues as uncertainty about the future of the beef and pork checkoff programs, the expected Tyson/IBP merger, and mandatory price reporting. Throw in other factors like the continuing struggle with bovine tuberculosis and there is certainly nothing traditional about where we are in the livestock cycles.

This past year, both the beef and the pork industries faced challenges to their checkoff programs and each challenge had a very different outcome. On January 17, 2001, the USDA announced that there were not enough valid petition signatures to call for a referendum of the beef checkoff program. Signatures from 10 percent of all cattle producers, or 107,883 total signatures, was the magic number that would have triggered the referendum. However, an independent accounting firm (Pricewaterhouse Coopers) determined that no more than 83,464 petitions were valid. Consequently, the beef checkoff will continue . . . for the time being. It seems that to ensure that checkoff programs have industry support, a USDA task force on research and promotion programs has recommended that all checkoff programs face a continuance referendum every five years. It's too early to speculate on how this recommendation will play out. Undoubtedly, much will depend upon the new administration, the budget and resources necessary to implement continuance referendums, and, moreover, the eventual outcome of the pork referendum.

In contrast to their counterparts in the beef industry, pork producers had the opportunity to vote last August and September on the future of their checkoff program. On January 11, 2001, USDA announced the results of that vote: 14,396 votes in favor of continuing the checkoff program and 15,951 votes against continuing the checkoff program. Consequently, Secretary Glickman directed the USDA's Agricultural Marketing Service to proceed with the necessary steps to terminate the pork checkoff program.

But the story doesn't stop there. On January 12, 2001, a lawsuit was filed in a Michigan federal court. As a result of this lawsuit, a federal judge granted a "temporary restraining order and a preliminary injunction preserving the status quo and enjoining the termination of the pork checkoff program until a full and fair hearing has occurred." This implies that checkoff funds will continue to be collected for the time being. At the heart of the legal battle is whether or not Glickman had the legal authority to call for the referendum in the first place and, even if the referendum could be called, was it properly conducted.

Once again, it is too early to speculate on how this legal battle will play out. What is clear is that if the pork checkoff program is eventually terminated, it will certainly change the way research, promotion and education are conducted in the industry. Likewise, it will have significant ramifications for non-checkoff funded programs such as political lobbying and policy influencing efforts. It is interesting to note that, in the event that the federal checkoff is terminated, many states are currently following steps to implement their own state-level checkoff programs. In Michigan, approximately 65% of those who voted in the referendum were in favor

of continuing the checkoff while 35% were against it. This suggests that the potential for a state checkoff program may exist in our state as well. In either case, the checkoff battles in the beef and pork industries and decisions reached over the next few months will certainly shape the future of both these industries.

Another major issue shaping the future structure of the livestock industries is the Tyson Foods/IBP merger. At the start of this year, IBP signed a definitive merger agreement with Tyson Foods, Inc. Although the term merger is used, under the conditions of the agreement, Tyson is basically buying IBP. If the acquisition does go through, as most expect it will, Tyson will become the world's largest poultry and meat processor. Although the merger does not lead to greater concentration in the individual poultry and meat packing industries, it will result in Tyson being a contender in more than just the chicken market. The "new" Tyson would account for 27% of the U.S. chicken market, 28% of the U.S. cattle market, and 18% of the U.S. hog market (in terms of commercial slaughter).

Although this acquisition will undergo scrutiny by the federal regulatory system, a first hurdle was cleared when the waiting period for federal regulatory review expired the last week of January without any significant actions taken by the Department of Justice. The story would no doubt be different had Smithfield Foods, Inc., a company that had offered \$32/share versus Tyson's \$30/share, acquired IBP. In this case, since Smithfield already was the number one hog slaughterer in the nation, by buying IBP (a very close number 2), Smithfield would have controlled nearly 36% of the market for slaughter hogs. This potentially would have had a significant effect on Michigan's pork producers as the U.S. Justice Department would likely have made Smithfield/IBP sell off certain slaughtering plants before the merger could be completed. This was certainly what happened when Cargill purchased Continental Grains in 1998. In that case, Cargill and Continental had to divest themselves of 10 elevators in order to reduce the merger's effects on concentration in key areas (areas with few or no other grain buyers). Following this precedent, a Smithfield/IBP merger would likely have left the IBP, Logansport plant vulnerable. Smithfield/IBP may have chosen to sell off or close this plant – either outcome would have affected Michigan producers. As it stands, the Tyson/IBP merger is much less likely to result in any changes to the Logansport plant.

So why the Tyson/IBP merger in the first place? Tyson has tried its hand at meat processing before with less than spectacular results. What IBP brings to the deal is the management and years of experience in meat slaughter and processing, particularly commodity beef and pork. Tyson, on the other hand, has been at the forefront of developing value-added, speciality food products and successful marketing programs. If the two companies can combine what they each do best and apply it to the food channel, it could lead to increased demand for meat products and a potential win-win situation for the industry. In the short term, however, it is likely that there will be very little impact on producers or consumers. IBP management is not expected to change and Tyson's CEO and president, John Tyson, has stated that Tyson has no plans to integrate beef and pork production "in my lifetime."

Mandatory price reporting is a third issue that has the potential to impact livestock producers this year. The final ruling of the Livestock Mandatory Reporting Act of 1999 was expected to be February 1, 2001. However, USDA just postponed the effective final rule until

April 2, 2001 (and don't be too surprised if there is another postponement). This postponement does not come as much of a surprise since there are still a lot of unknowns as to how mandatory price reporting will actually work -- both in terms of collecting prices from packers and providing them to producers in a useable form, and what resources will be necessary to implement the program.

In theory, the rule requires the mandatory reporting of market information, such as purchases and sales and prices paid, by most packers and importers of cattle, hog, sheep and lamb. Although smaller packers are not necessarily subject to the rule, information from the reporting packers is expected to account for 80-95% of all cattle, boxed beef, slaughter hogs, sheep, and lamb meat transactions.

Under the mandatory price reporting rule, information on livestock and meat transactions will be reported by packers and importers to USDA. USDA/AMS will then compile reports and release these for use by market participants, including producers, packers and others. Once initiated, mandatory price reporting will influence the markets in at least two ways. First, if the information is truly timely and available to producers in a useable form, it is likely to make the price discovery process easier for producers. However, keep in mind that this does not mean that market prices, which are determined by the forces of supply and demand, will improve. Rather, it is more likely that there will be less variability in prices, but the "average" price will not change.

Second, if producers know what various packers are paying for cattle and hogs, so will other packers. What previously may have been proprietary information for an individual packer will now be available for all competing packers to see. So not only is there more price disclosure between packers and producers, but also between packers and packers. Again, this may close the gap between packer prices (if the gap is wide due to factors other than supply and demand) and reduce the variability of prices, but it is not likely to change the "market" price.

On another note, the daily price reporting may act as a watchdog over packers that have the potential to exercise monopoly power in a particular market. Alternatively, it may bring about greater awareness that current anti-trust regulations and market reporting information, some of which were founded nearly 100 years ago, need to be updated to meet the needs of today's food industry. In any case, this coming year will be one in which there is more going on than just the traditional livestock price cycles.



## **MICHIGAN DAIRY OUTLOOK**

Larry G. Hamm and Sherrill B. Nott

Michigan dairy industry demonstrated its resiliency in 2000. It took severe blows from the dramatic milk price decline and the bovine tuberculosis crisis. Yet government program generated inexpensive feed and direct payments along with new Federal Milk Marketing Order(FMMO) rules and continuation of the dairy price support program combined to produce continued growth in Michigan's dairy industry. Although the milk price outlook looks moderately brighter in 2001, cost increases and uncertainties associated with energy supplies, environmental regulations, and policy decisions may produce another year of similar farm income to last year.

### **It Could Have Been Worse**

Milk prices fell dramatically as the dairy industry experienced milk production increases for the third year in a row. Not since the late 1970s and early 1980s had milk production increased based on the expansion of the milk herd in addition to the normal increase in productivity. In 2000 milk production increased 3.2 percent after increasing 3 percent in 1999. Production in Michigan increased 3.3 percent to around 5.63 billion pounds based on increased production per cow combined with an increased dairy herd of 4000 cows. Expansion was fueled by generous supplies of inexpensive feed and government policies that not only aided milk prices but provided two Dairy Market Loss Assistance Program payments.

The average all-milk price(the gross price including all premiums before deductions for hauling) in Michigan during 2000 was \$12.90 per hundredweight. This was a drop of \$1.90 from 1999 and \$2.40 from 1998. Michigan milk prices were aided by the FMMO reforms with combined Michigan's Federal Orders with others to the south and east resulting in an average increase in the fluid milk utilization for Michigan producers. In addition, the FMMO reforms specified that the Class I and Class II skim prices be moved by the higher of the Class III (cheese milk price) or Class IV (butter-powder price). Since the Class IV averaged \$2.09 higher than Class III, Michigan producers gained around another \$1.00 over what would have been the case without FMMO reform.

### **Price Forecast Looks Better**

The new FMMO pricing rules did not help those markets where the predominant milk market is cheese. Wisconsin, Minnesota, Idaho, and others saw pay prices substantially below Michigan's. This combined with environmental constraints to expansion in California and the more recent energy crisis have finally slowed the milk production increases. For 2001, U.S. milk production will likely only increase 1 percent. Consumer demand has been outstanding. Even though the economy is slowing, employment and disposable income should remain strong enough to tighten milk markets this fall. After some lower prices this spring, cheese prices should increase this fall. Butterfat markets will continue to be strong and push the Class IV market to the point that it will likely be the driver of Michigan producer prices for nearly all the year. When all of this comes together, the all milk price for Michigan should range between \$13.00 and \$13.50.

## **Policy Uncertainty**

The increased prices predicted for this year could evaporate if policy, particularly FMMO rules, goes array. At press time a federal judge has halted the implementation of the final FMMO(2001) reform rules. The 2000 rules are now in place but whenever courts are involved on FMMO rules, anything can happen. Also, the USDA can change the price rules on the price support program and cause the Class IV price to drop dramatically. Changing the “tilt” on butter-powder would disproportionately hurt Michigan producer prices. The price support expires on December 31,2001 which means that policy debate must happen this year. The dairy industry will also debate how to use market loss assistance payment monies to deal with the regional impacts of the big differences between Class III and Class IV prices. Throwing in debates about the use of Interstate Compacts, Milk Protein Concentrates (MPCs), forward contracting in the FMMO system, etc., will assure that policy uncertainties will continue to rile the markets.

## **Cost Increases to Eat into Price Gains**

The outlook for dairy farm costs through 2001 has anything associated with petroleum products will stay at the higher levels than 2000. Interest rates may drop a small amount. Labor costs will continue to be under pressure to increase. All other cost items will likely continue their upward creep during 2001.

In the following, cost index numbers from the USDA’s “Agricultural Prices” will be cited. The index base = 100 is for 1990-92. The index of prices paid by farmers for all items was about 115 during 1999. By December, 1999 the index reached 117, then increased to 121 by December, 2000. This was an increase of 3.4 percent. The index for family living expenses, based on the Consumer Price Index, was 125 in December 1999 and was 129 a year later. With both business and personal costs moving upward, the possible erosion of prices received becomes alarming.

The price of crude oil was perhaps the most startling business news of 2000. Index numbers for farm prices in December, 1999 and December, 2000 were: Diesel, 109, 158 (+45%); Gasoline, 110, 138 (+26%); LP Gas, 127, 153 (+21%); all Fuels, 112, 152 (+60%). During last year the Organization of Petroleum Exporting Countries (OPEC) made clear what their price goals were for crude oil. The last half of 2000 showed they had trouble precisely staying in the range, but OPEC was successful enough that we can expect to see prices levels of farm delivered energy products stay about where they were during that period of time. However, transport costs may have been slow to catch up. As hauling contracts expire and are renegotiated, expect to see transport costs for a variety of products climb in 2001.

Index numbers for fertilizer prices in December, 1999 and December, 2000 were: Nitrogen, 94, 130 (+38%); Potash and Phosphate, 114, 106 (-7%); Mixed Fertilizer, 109, 108 (-1%), and All Fertilizers, 103, 152 (+48%). These prices will be influenced by natural gas prices within the United States as well as the international price of crude oil. Governmental bodies are increasingly enforcing environmental laws, especially those associated with manure handling. The increase on nitrogen fertilizer costs will add an economic incentive of capturing available nitrogen in animal manures. The tradeoffs will favor increased management attention in the coming year. Expect also to see renewed debate about corn silage versus alfalfa as the latter’s perennial status



can reduce the amount of required energy as well as nitrogen fertilizer needs over a 5 year planning period.

The magnitude of the potential impacts of energy cost changes should be considered. In 1999, the average total cash expenses for 153 Michigan dairy farms was \$549,442; they averaged to have 183 cows and cropped 561 acres. The fertilizer costs were 4.3 percent of the total cash expenses. Fuel and oil costs were 2.1 percent. Purchased feed costs were 27.8 percent. (See Staff Paper 2000-24 by Nott.)

Index numbers for feed prices in December, 1999 and December, 2000 were: Feed Grains, 77, 83; Hay/Forages, 96, 111; Concentrates, 94, 103; Complete Feeds, 102, 104; and All Feeds, 98, 103 (+5%). The cost advantage for those dairy farms that buy their feeds as commodities and mix their own rations is illustrated by the above indexes of feed grain prices versus complete feeds. Purchased grains continued to be a bargain for dairy farms in 2000. They will continue to be through the first part of 2001. The outlook after mid-2001 depends on the weather throughout the world. The best managers will monitor feed prices and be ready to lock in future feed grain prices if conditions favor price increases.

The preceding index numbers were averages for the whole country. Michigan has a unique situation as it deals with tuberculosis (TB) in its deer and livestock herds. Many dairy herds have already undergone whole herd TB tests. By mid-June, 2001, the state will have completed testing of dairy herds in the state. By then, all dairy farm managers will have experienced the management it takes for testing; some will have had to deal with losing animals that were suspected of having TB. Tempers will be frayed as everyone learns to deal with the associated requirements for testing and marketing animals. Direct cash costs will be minimal as the government, both State and Federal, reimburse those directly affected. The impact of temporarily losing markets for breeding and replacement livestock destined to leave Michigan will be felt by many. It is expected Michigan's dairy industry will work together to assure the continued access to all markets, for both milk and livestock, which consumers perceive to be safe and nutritious.

## **Summary**

It is proverbial good news/bad news. After two years of continuous U.S. milk production increases, production slow downs combined with good demand should push prices higher. However, energy costs because they are so pervasive in both the production and sale of milk and feed, could soak up any additional revenues arising out of the milk markets.



## **MICHIGAN FARM INCOME OUTLOOK FOR 2001**

Jake Ferris

Because of the diversity of Michigan agriculture, gross and net farm incomes for the state as a whole do not change very much from year to year. This is evident in cash receipts from both the livestock and the crop sectors.

### **Cash Receipts from Livestock**

The drop in milk prices in 2000 reduced cash receipts to dairy farmers by nearly \$80 million. This happened even though milk production increased over 3 percent relative to 1999. However, higher prices on increased marketings of cattle, hogs and eggs offset reduced milk sales. Total cash receipts from livestock for 2000 were about \$1,344 million, nearly equal to the \$1,331 million total for 1999 (Table 1).

Milk cow numbers on Michigan farms on January 1, 2001 remained at 300 thousand, a figure which has been maintained since January 1, 1998. This confirms that the long term downtrend in dairy cow numbers has leveled off. With the prospect of higher milk prices and increased production in 2001, milk receipts are projected to increase. Higher cattle prices will likely offset declines in cattle marketings in 2001. Beef cow numbers dropped from 95 thousand on January 1, 2000 to 85 thousand on January 1, 2001. In the same period, cattle on feed declined from 200 thousand to 190 thousand.

Hog producers intend to increase farrowings in the December to May season by about 5 percent. This should help maintain cash receipts in face of some decline in prices. Little change is seen in egg sales in 2001. Total cash receipts from livestock are projected to \$1,387 million in 2001, slightly higher than in 2000 (Table 1).

### **Cash Receipts from Crops**

In 1999, yields on nearly all the major crops were noticeably above long term trends, an event not expected to be repeated in 2000. However, 2000 yields on corn, wheat, sugarbeets and potatoes did remain above normal. A feature was a 72 bushel per acre wheat crop on a much reduced acreage. Harvested acreage on wheat dropped from 600 thousand acres in 1999 to 500 thousand acres in 2000. About 8 percent more acres were seeded in the fall of 2000.

With prices on the major field crops falling from 1998 levels, the relatively large crops of 1999 and 2000 brought in less cash from marketing in calendar 2000 as compared to 1999 (Table 1). The 2000 dry bean crop happened to be the smallest since 1989 but the 1999 crop was the largest since the early 1980s. A large increase in receipts from vegetables in 2000 about offset the decline in the major field crops. Fruit sales were down in 2000 but this was likely offset by expanded income to greenhouse and nursery operations. Sales data for the latter industry were not available but the trends have been consistently upward.

Prices on the major field crops are expected to be about the same to somewhat higher in 2001 and, with normal weather, the prospects are for modest increases in cash receipts, with some exceptions. Soybean prices will remain under pressure as acreage is likely to shift from corn to

soybeans in the spring of 2001. The loan rate of \$5.26 per bushel, if maintained in 2001, favors soybeans, plus the rising prices on nitrogen fertilizer raises fertilizer costs for corn relative to soybeans. The attractive soybean loan rate coupled with the new Oilseed Payment Program are also holding down acreage on dry beans.

Chances are that receipts from vegetables will decline while receipts from fruit will increase. In total, cash receipts from all crops are forecast to change very little in calendar 2001 relative to 2000. The grand total for both livestock and crops is projected to be about \$3,527 million in 2001 compared to \$3,479 million in 2000 and \$3,470 million in 1999.

### **Cash Farm Income**

Features of the outlook for Michigan farm income for 2001 are the increased importance of direct government payments and rising energy costs. As can be observed in Table 2, net cash income to Michigan farmers dipped below the billion dollar level in 1997 and 1998. Between 1997 and 1999, net cash farm income increased from \$884 million to \$1,131 million due to increased government payments. Government payments increased from \$121 million in 1997 to \$389 million in 1999, a level estimated to remain about the same in 2000 and 2001. In 2000, government payments represented about 9 percent of gross cash farm income and about 37 percent of net cash income. Net cash income in 2000 was about \$1,032 million, down about \$100 million from 1999 due to increased cash expenses.

Since 1997, payments to farmers under the production flexibility contracts have been edging lower as provided in the 1996 Farm Act. The Act also provided for loan deficiency payments (LDPs) which, due to low market prices, have become a more important source of government payments. In 1999, LDPs amounted to \$132 million to Michigan farmers compared to \$87 million for production flexibility contracts. In the same year, emergency legislation provided supplemental funding for farmers in the amount of \$143 million, most of which were for "market loss assistance". These payments went primarily to feed grain and wheat producers. Soybean producers also received payments (about \$11 million) in 2000 from similar legislation enacted in 1999. Other payments in 1999 were \$17 million for conservation programs and \$11 million for miscellaneous programs. Preliminary estimates from the Farm Service Agency indicate that LDPs declined to about \$107 million in 2000 with payments for other programs holding at about the same level as in 1999 or increasing somewhat.

Appropriations for market loss assistance enacted in 2000 provided nearly identical support as in 1999. The farm income outlook for farmers in Michigan as well as throughout the U.S. clearly depends on whether emergency legislation will again be enacted in 2001. The forecast for government payments of \$371 million in 2001 was made under the assumption that supplemental funding will be available in 2001 similar to the programs in 1999 and 2000. Rising energy prices have been reflected in cash expenses in 2000 and will likely hold expenses at an elevated level in 2001. This would result in net cash income moving slightly lower in 2001 to about one billion, about 3 percent lower relative to 2000.

If supplemental funding legislation is not enacted in 2001, government payments would decline to about \$275 million and net cash income would drop to about \$900 million, a 13 percent decline from 2000.

**Table 1. Cash Receipts from Farm Marketings in Michigan,  
Calendar Years 1999 Actual, 2000 Estimated, and 2001 Forecast\***

<b>Enterprise</b>	<b>1999 Mil \$</b>	<b>2000 Mil \$</b>	<b>2001 Mil \$</b>
<u>Livestock</u>			
Dairy	801	722	765
Cattle and calves	236	269	270
Hogs	148	202	196
Eggs	59	61	63
Other	87	90	93
Total Livestock	1,331	1,344	1,387
<u>Field Crops, Vegetables and Other</u>			
Corn	326	318	329
Soybeans	342	330	339
Wheat	82	76	90
Dry Beans	106	80	77
Sugarbeets	130	127	113
Potatoes	101	94	96
Hay	31	33	36
Vegetables	234	286	250
Other	71	72	73
Total	1,423	1,416	1,403
<u>Fruit</u>	244	227	235
<u>Greenhouse/Nursery</u>	472	492	502
Total Crops	2,139	2,135	2,140
<b>GRAND TOTAL</b>	<b>3,470</b>	<b>3,479</b>	<b>3,527</b>

\* Data for 1999 were obtained from the Michigan Agricultural Statistics Service, Michigan Department of Agriculture, and the Economic Research Service, USDA.

**Table 2. Cash Farm Income in Michigan, Calendar Years,  
1995-1999 Actual, 2000 Estimated, and 2001 Forecast\***

Item	1995	1996	1997	1998	1999	2000	2001
	<u>Million \$</u>						
Gross Cash Income							
Farm Marketings							
Crops	2,262	2,152	2,256	2,186	2,139	2,135	2,140
Livestock	1,353	1,466	1,365	1,320	1,331	1,344	1,387
Government Payments	151	110	121	208	389	386	371
Farm Related Income	113	127	141	148	146	147	148
Dwelling Rental Value	258	275	294	309	313	320	327
Total	4,137	4,130	4,177	4,171	4,318	4,332	4,373
Cash Expenses	2,967	3,019	3,293	3,235	3,187	3,300	3,375
Net Cash Income**	1,170	1,111	884	936	1,131	1,032	998

\* Data for 1995 to 1999 were obtained from the Michigan Agricultural Statistics Service, Michigan Department of Agriculture, and the Economic Research Service, USDA.

\*\* Including the imputed rental value of farm dwellings.