

# *Staff Paper*

1999 ANNUAL AGRICULTURAL OUTLOOK  
DEPARTMENT OF AGRICULTURAL ECONOMICS  
MICHIGAN STATE UNIVERSITY

Coordinated by  
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AEC Staff Paper #99-6

February 1999



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38 pages

Abstract or Summary

Compilation of 1999 outlook articles written by faculty in the Department of Agricultural Economics at Michigan State University covering issues such as the economy, farm policy, commodity prices and production, farm income, and farm input supplies.

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## **THE GENERAL ECONOMY IN 1999**

**Lester V. Manderscheid and Robert J. Myers**

Most economists expect the U.S. economy will continue to grow in 1999 with the output of goods and services expanding about 2.0 to 2.4% over 1998. This would continue the unprecedented peacetime expansion in the general economy, and follows an unexpectedly high growth rate of 3.9% in 1998. The economy has not grown faster since 1984 when it grew by 7%. At the same time, the Consumer Price Index is expected to increase by less than 2% and unemployment is expected to remain near current levels, but may increase slightly later in the year. In short, the forecast is for the “Goldilocks” economy to continue (not too hot, not too cold, but just right).

One reason for the strong economic growth in 1997 and 1998 is the increased wealth of Americans and their willingness to spend it. Rising stock prices and, in much of the country, increasing home prices have increased consumer wealth. Recent research suggests that each dollar increase in wealth leads to an increase in consumer spending of about four cents. Some of the increase is a result of selling assets and some is associated with reduced savings.

Consumer confidence was at a high level in January 1999. While this confidence bodes well for the economic outlook, a swift stock market correction, a significant increase in interest rates, or an economic slowdown could severely test consumer optimism. Pessimists are saying that, psychologically, the economy cannot continue expanding in spite of the fact that almost no market analysts expect a recession in 1999.

The stock market continued to provide strong returns to investors in 1998 and most financial economists expect stocks to continue providing higher returns than bonds in 1999. Nevertheless, it seems clear that there is a lot of optimism built into current stock price valuations. If the “Goldilocks” economy continues, then the stock market should continue to be a good place to invest, but bad news in any form seems destined to lead to a severe market correction.

The Federal Reserve System reduced short-term interest rates several times in the September-November period of 1998, which also helped boost stock prices. These reductions were not based on worries about inflation in the U.S. economy. Rather, they reflected concern about the liquidity of a number of major U.S. banks. These banks had substantial loans in Asia, Russia and Brazil. Many bankers hoped that the International Monetary Fund would provide funds to these countries if an economic crisis occurred. Further, they expected that the Fund would assure that the loans were repaid. While the Fund did provide assistance to these countries, they did not require repayment of the loans. Therefore, some banks and some investment firms suffered substantial losses. The Federal Reserve System acted to avoid a financial crisis in the U.S., but did not prevent the involved banks and investment firms from incurring significant losses.

On average, economists seem to expect future interest rates to stay at recent levels, but there are some widely divergent views on this issue. Some believe that the Federal Reserve System will

increase interest rates by as much as 1 percentage point during 1999 in an attempt to assure price stability. Others believe that the continuing economic crisis in Asia, Russia and Brazil will reduce demand for U.S. exports and make imports less expensive. Less expensive imports would allow price stability without increasing interest rates and the continuing economic crisis overseas may even encourage the Federal Reserve to lower rates. In the fourth quarter of 1998, exports from the U.S. increased 16% reflecting weakness in the dollar. At the same time, imports into the U.S. increased 16% reflecting weak prices in some foreign countries.

## **FARM LOAN RATES MAY RISE IN 1999**

**Steve Hanson**

Historically low inflation levels helped interest rates for farm loans drift lower during 1998. Table 1 shows the September 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 rate charged for operating loans at the end of September 1998 was 9.43%, and the rate charged for real estate loans averaged 8.87%, both down from the same period in the previous year. The rates in Michigan averaged 9.38% for operating loans and 8.87% for real estate loans. While the farm loan rates in Michigan were the highest in the Seventh District, the Michigan rates did show larger declines than the average rate decrease in Seventh District dropping 0.62% for operating loans and 0.52% for real estate loans.

Interest rates in the general economy also declined during the year. Table 2 shows a number of key interest rates for the general economy. The federal funds rate, the interest rate the Federal Reserve bank charges member banks to borrow funds, dropped nearly 1% during the year to 4.63%; while the prime rate, the loan rate banks charge their best customers, fell 0.75% from 8.50% to 7.75%. Both the federal funds and the prime rate are short-term borrowing rates.

The 90 day T-bill rate, the rate at which the U.S. government can borrow funds for 90 days, fell 0.75% during the year to 4.34%. The borrowing rates for longer-term government securities (notes and bonds) showed similar declines during the year. The pattern was for both short-term and long-term borrowing rates on government securities to decline by similar amounts.

The government interest rates on government securities are important “benchmarks” because they represent the borrowing rate for loans with different maturity length 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. If you compare the short-term rates on 90-day T-bill (4.34%) and the 1-year T-note (4.51%) with the long-term rates, say on the 30-year T-bond (5.16%), we see that “yield curve” is very flat; that is, the interest rates don’t change much as the maturity length of the loan increases. This suggests that investors (lenders) believe inflation and interest rates will remain stable in the future.

A survey of bankers, conducted by the Federal Reserve Bank of Chicago, provides some additional information on lending conditions in the Seventh District each quarter. The results indicated that loan demand in Michigan was down in the third quarter of 1998 from the previous year. In addition, the level of funds available for agriculture lending was relatively tight. Finally, the survey suggested a drop in loan repayment rates in Michigan as a result of the economic decline in the farm sector.

Expect interest rates in the general economy to remain fairly stable or increase slightly if inflation increases during the year. In the farm sector, the current financial stress will likely result

in an increased demand for operating loans and stable, or slightly declining, demand for real estate loans. With the relatively tight credit conditions and increased repayment risk as a result of the financial stress in the farm sector, expect borrowing rates in Michigan rise slightly during the year. If rates in the general economy make any unexpected upward movements, the potential increases in borrowing rates in the farm sector could be significant.

**Table 1. Interest Rates for Farm Loans**

| <b>Loan Type</b>                        | <b>End of<br/>September 1997</b> | <b>End of<br/>September 1998</b> |
|---|----------------------------------|----------------------------------|
| <b>Seventh Federal Reserve District</b> |                                  |                                  |
| Operating Loans                         | 9.71%                            | 9.43%                            |
| Feeder Cattle                           | 9.69                             | 9.41                             |
| Real Estate                             | 8.76                             | 8.33                             |
| <b>Michigan</b>                         |                                  |                                  |
| Operating Loans                         | 10.00                            | 9.38                             |
| Real Estate                             | 9.39                             | 8.87                             |

Source: Federal Reserve Bank of Chicago.

**Table 2. Key U.S. Interest Rates**

| <b>Rate Type</b>       | <b>January 1998</b> | <b>January 1999</b> |
|------------------------|---------------------|---------------------|
| Federal Funds Rate     | 5.56%               | 4.63%               |
| Prime Rate             | 8.50                | 7.75                |
| 90-Day CD              | 5.53                | 4.89                |
| 90-Day T-Bill          | 5.09                | 4.34                |
| 1-year T-Note          | 5.24                | 4.51                |
| 10-year T-Note         | 5.54                | 4.72                |
| 30-year T-Bond         | 5.81                | 5.16                |
| Corporate Bonds (AAA)  | 6.61                | 6.24                |
| Conventional Mortgages | 6.97                | 6.79                |

Source: Federal Reserve Bank of Chicago.

## **TRADE AND POLICY OUTLOOK**

**David B. Schweikhardt, Associate Professor and Sandra S. Batie, Elton R. Smith Professor of Food and Agricultural Policy.**

Lingering uncertainty about the potential impact of the Asian financial crisis is expected to dominate the outlook for U.S. agricultural exports in 1999. As the economic situation in these countries has eroded in the past year, U.S. exports to the region declined sharply, and analysts continue to revise their projections downward for 1999. Recent estimates suggest that this decline in U.S. agricultural exports to the region will dominate the outlook for U.S. agricultural exports in 1999.

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

U.S. agricultural exports are expected to fall to \$50.5 billion in 1999, a decrease of \$3.1 billion compared to 1998 (Figure 1). Export volumes are expected to remain steady compared to 1998 levels, but still remaining far less than the record levels recorded in 1996. The export volume of wheat is expected to increase from 25.8 million tons in 1998 to 31.5 million tons in 1999. Corn exports are expected to increase to 42.5 million tons for 1999, compared to 37.6 million tons in 1998. This level of corn exports remains far below the 52.6 million tons shipped in 1996. Soybean and soybean meal exports are expected to remain steady, but lower prices are expected to leave the export value of these products lower than in 1998.

Exports in other product categories are expected to have a mixed outlook for 1999. Beef and pork exports are expected to increase by \$500 million to \$4.5 billion in 1999. Poultry exports are expected to decrease by \$500 million to \$1.8 billion for 1999. Dairy exports, at \$900 million, are expected to remain unchanged in 1999. Fruit and vegetable exports are expected to remain steady in both the volume and value of exports, reaching \$10.1 billion, or \$200 million less than in 1998. The volume of horticultural exports is expected to reach 7.3 million tons in 1999, compared to 7.4 million tons in 1998. U.S. agricultural imports are expected to reach \$39 billion in 1999, or \$1.5 billion greater than in 1998. Increased imports of horticultural products will account for most of this increase, with fruit and vegetable imports increasing by \$700 million to a projected \$14.5 billion. Canada (\$8.1 billion) and Mexico (\$4.9 billion) are projected to continue as the two largest suppliers of U.S. agricultural imports.

The Asian financial crisis has caused a decline in the value of U.S. agricultural exports. Despite the impact of the Asian financial crisis, Asia (\$18 billion) is projected to retain a slight edge over the Western Hemisphere (\$17.5 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 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 \$8.8 billion from the U.S. in 1999. Canada will continue as the second largest customer at \$6.7 billion, and Mexico will continue as the U.S.'s third largest export market at \$5.6 billion. U.S. agricultural exports to Mexico have shown a strong recovery from the 1994 devaluation of the



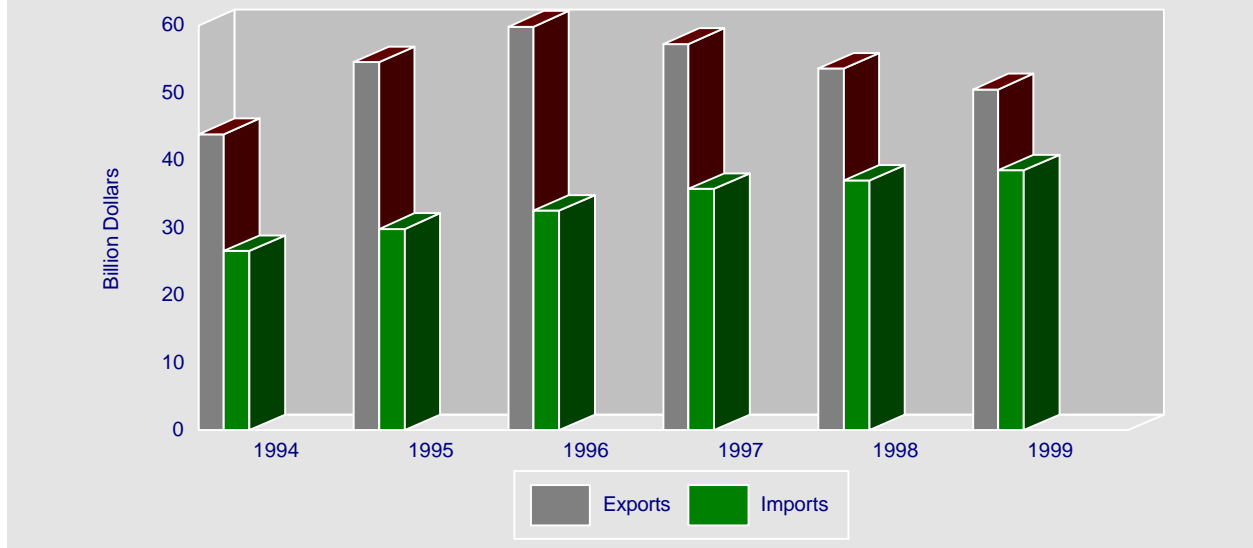
Mexican peso. Exports to Mexico were \$3.6 billion in 1993, the year prior to the approval of the North American Free Trade Agreement, and then increased to \$4.5 billion during the first year of the agreement. Following the devaluation of the Mexican peso in November of 1994, which made U.S. products more expensive for Mexican consumers and reduced the incomes of many consumers, U.S. exports declined to \$3.7 billion. As the Mexican economy has shown signs of recovery and as Mexico has changed its domestic agricultural policies, U.S. exports have recovered, reaching \$5.9 billion in 1998.

### **Trade Policy Outlook**

With last year's defeat of President Clinton's request for "fast track" trade negotiating authority, Congress is expected to again consider such a request in 1999. A new round of multi-lateral trade negotiations is scheduled to begin in 1999 under the auspices of the World Trade Organization, replacing the negotiations formerly conducted under GATT. Though the Congress has not yet given the President authority to participate in the negotiations, decisions are being made on the U.S. negotiating strategy for agricultural issues. It appears that the U.S. will focus on continued reductions in import tariffs and export subsidies, stricter rules limiting the use of phytosanitary barriers on food products, and limitations on the role state trading agencies (for example, the Canadian Wheat Board) as the central issues for agriculture in this round of negotiations.

With U.S. agriculture's heavy reliance on Asia as a source of growth in food demand, the Asian financial crisis is likely to remain a central problem for U.S. agriculture. The crisis can be expected to affect U.S. agricultural exports in at least two ways. First, if the crisis leads to an on-going recession in several Asian countries, slower income growth will ultimately lead to slower growth in the demand for food. This outcome will be particularly true for meat products and other higher-value food products. Though some projections indicate that the economies in these countries may begin to recover in late 1999, it is unlikely that any significant improvement will be seen until at least 2000.

Figure 1. U.S. Agricultural Exports and Imports



## **1999 OUTLOOK FOR PRODUCTION INPUTS**

**Chris Peterson**

The most interesting news for the 1999 input outlook is not the inputs themselves, but the more uncertain picture about the demand for inputs. With crop prices remaining substantially down and farm incomes weak, farmers will likely attempt to minimize their use of inputs with a resulting downward pressure on their demand. But how much use can be cut is not clear as acres planted are not likely to fall.

Creating further uncertainty in the situation is the potential for farmers to shift cropping plans in the hope of capturing what limited income opportunities exist. Of interest will be how many acres will shift from grains to dry edible beans. With all this demand uncertainty as a back drop, the good news for farmers is that across the range of production inputs supplies appear to be ample and prices are stable to down.

### **Fertilizer**

Nitrogen supplies are ample and prices are down significantly from last year. Prices have firmed up recently, but are not expected to dramatically change going forward. These may be the most reasonable nitrogen markets in more than a decade. Phosphates and potash are also in good supply with prices expected to be flat to a bit soft.

Supplies of all three components are ample for expected demand. The only uncertainty on the supply side relates to the potential for some spot shortages depending upon timing of use in the spring. In particular, there is concern that fertilizer inventories have not moved to the farm level as rapidly as they have in prior years. With farmers having postponed purchases, the prospects exist for supply bottlenecks if demand from a large number of farmers occurs simultaneously at planting time.

### **Chemicals**

Chemical supplies are more than adequate with likely flat to downward moving prices. The most interesting competitive battle surrounds chemical use for soybeans. More traditional crop protection products have dramatically cut price in order to stem the tide of adopting Round-Up Ready soybeans. In other markets, the only supply difficulties that may arise will be related to regulatory and labeling issues.

Chemical demand is becoming more difficult to predict with the introduction of bio-engineered crops. Mixed yield results from the new crops are still a concern in some parts of the state, yet adoption rates have been quite high, singling weakening demand for some traditional chemicals.

Worldwide, 1998 was a banner year for the continuing emergence of the new "life science" industry that combines the old ag-chemical, seed, and pharmaceutical industries into one. The trend will continue in 1999 as this industry works to commercialize new products. Biotechnology

is the driving force behind this change. In 1998, Monsanto almost became part of American Home Products and did complete arrangements to buy all of DeKalb. DuPont and Pioneer are moving together with speciality seed products. Aventis has emerged as the largest life science company based on the merger of Rhone-Poulenc and Hoesht. Producers should follow the development of this industry closely as value-added, identity preserved specialty grains emerge as cropping opportunities.

At the agri-dealer level, emphasis continues on developing and implementing precision (site specific) agricultural technology. Weak farm incomes may deter the movement toward more use of these specialty application, scouting, and information services. However, in the long-run, farmers will likely continue to adopt them given the potential for savings on the entire bundle of production inputs and the need to document environmental impacts of farming practices.

Several ag-chemical distribution systems have developed integrated computer software packages to bring all the information (plot maps, yield monitoring, and application data) together to make precision agriculture more effective. Producers need to increasingly weigh the advantages of independent input decisions versus the potential advantages of working with a specific dealer who can provide a full range of services tailored to producer need.

### **Seeds**

Generally, all categories of seed appear to be in ample supply with steady prices. The biotech seeds do carry higher prices than traditional seed with premiums similar to last year. As already mentioned, adoption of biotech seeds is moving along quickly.

### **Energy**

Nationally and locally, fuel supplies should be good this year. Prices continue to be at their lowest level in a number of years--down roughly 10% from last year. Prices may remain susceptible to short-run volatility based on inventory and production adjustments but their average level is not likely to change much.

## **FARMLAND VALUES PROJECTED TO STABILIZE IN 1999**

**Steve Hanson**

Michigan farmland values continued their string of year-to-year increases by posting strong gains again in 1998. The annual land value survey conducted through the Department of Agricultural Economics at Michigan State University found the average farmland values to be \$1,519 per acre for tilled field crop land (up 10%), \$1,263 per acre for untilled field crop land (up 10%), \$2,031 per acre for sugarbeet land (up 6%), and \$1,698 per acre for irrigated land (up 13%) during the spring of 1988. Consistent with the Michigan State study, a Federal Reserve Bank of Chicago survey of agricultural bankers found the average value of Michigan farmland rose 8% over the period October 1, 1997 to October 1, 1998. Last year's strong showing marked the 12<sup>th</sup> straight year of increases in the average value of Michigan farmland. According to USDA statistics, the last time farmland values in Michigan experienced a year-to-year decline was January 1, 1987.

The current economic conditions in the state will make it difficult for land values to post another strong performance in 1999. The sharp declines in corn, soybean, and hog prices resulted in an modest decline in average farmland prices across the Seventh Federal Reserve District (Illinois, Indiana, Iowa, Michigan, and Wisconsin) in the third quarter of 1998, the first quarter-to-quarter decrease of the decade. Michigan's diverse agriculture has historically helped shield its farmland values from the relatively large swings that less diversified states, such as Iowa, Indiana, and Illinois, have experienced in the past. This diversification and the strong returns to Michigan's dairy farms last year helped hold farmland values in the state stable while a number regions experienced strong declines in the latter part of 1998.

Given the current economic conditions in the state, look for farmland prices in Michigan to level off this year. You can expect a some regional variation in farmland prices across the state depending on which commodity or product provides the major source of gross farm income in the region. For example, areas where farm receipts are derived primarily from corn and soybeans will likely see a weaker land market than areas where the primary farming activity is dairy. A number of areas in the state may even see modest declines farmland values over the previous year's values, especially during the first half of the year. While the expectation is for average farmland values to remain steady across the state, there is some chance that average farmland values could decline slightly for this first time this decade. A key variable that will impact farmland values in 1999 is what happens to farm incomes during the upcoming year. If farmers generally realize solid farm incomes in 1999, then the farmland market should improve in the latter part of the year. If farm income is low for several key commodities or products again this year, then the market will likely show further weakness.

Another factor that continues have significant impacts on farmland values in some areas is the potential development value of the land for residential, commercial, or recreational purposes. The development value of land can be significantly above the agriculture-use value in some areas. For example, the Michigan State survey found the average value of developing land in 1988 was \$1,679 per acre for recreational purposes, \$4,890 per acre for residential purposes, and \$22,347 for commercial/industrial purposes. Even if the there is no immediate plan to develop land in a

particular area, the possibility of receiving a high sales price at some point in the future by allowing the land to be developed can drive the current value of farmland used in agricultural production above its agriculture-use value. Look for these development pressures to continue with the largest impacts in regions on the fringe of urban population centers and/or areas that experience heavy recreational use.

## **1999 ANNUAL CROP OUTLOOK**

**Jim Hilker**

### **Corn**

More of the same. It will take a weather market to move the corn price much above \$2.00 per bushel in 1999. We came into the year with the second largest U.S. supply on record due to the second highest yield and production on record and healthy beginning stocks. Even imports were up as Ontario had a good corn crop last fall, although western Canada corn imports from the U.S. will make Canada a net corn importer.

As shown in column 2 of Table 1 below, feed use is expected to be up 3.5% for the 1998-99 marketing year. Feed use last fall, the first quarter, set a new record due to record hog numbers, overweight cattle, more broilers, and low corn prices. Hog numbers will remain up through at least the first half of 1999 before dropping off a little this summer. Cattle numbers will be down marginally, but weights are still running significantly above a year ago and with the cheap corn will probably continue for a while. Broiler production is expected to be up about 5%.

Food, seed and industrial uses is expected to grow 5% in 1998-99. High fructose corn syrup is expected to be up 5% as soft drink sales continue to grow. Ethanol production for fuel is expected to grow 14% as new plants come on to line, but with low oil prices stocks may grow. Glucose and dextrose used for baking and alcohol use is projected to fall 5-6%. Seed use is not expected to grow.

Exports are expected to increase 15% in 1998-99, but this large increase is from an historically low level in 1997-98 and still leaves exports lower than the three previous years to 1997-98. Most of the increase is to Mexico and other nations spread around to world, but we are seeing some increases from Korea, as they ship more hogs to Japan, and from Japan, but that is largely a switch from sorghum to corn. World production is about the same with increases in the U.S. and China offsetting net decreases in the rest of the world. Total world consumption is not expected to change much.

This leaves the U.S. holding more stocks, as the half billion bushel increase in use, 6%, can't offset the nearly billion bushel, 10%, increase in supply. This pushes ending stocks to 1.786 billion bushels, 19.2 % of use, and means prices near \$2.00.

A quick look at 1999-00 doesn't look any better with trend yields around the world. As shown in Table 1, even a reasonable decrease in U.S. acres and yield is unlikely to offset the increased beginning stocks leaving total supply above 1998-99. Feed use is unlikely to grow as the hog sector is beginning to liquidate and cattle numbers keep decreasing. Cheap corn and increased poultry numbers are likely to keep feed use from dropping too sharply.

Exports are likely to grow marginally if the rest of the world's economies begin to recover as expected. FSI uses are also expected to grow. And, while this would put use above 1998-99, it

is not expected to be enough to offset the increase in supply. With ending stocks as a percent of use staying near this year's projection, prices will likely stay near this year's levels. Now we just need to know this year's growing weather and we will know the rest of the story.

## **Wheat**

Wheat prices for the second half of 1999 should improve, however, the picture still looks bleak. While producers cut wheat acres by 4.5 million, nearly 7%, production still increased as a higher percent of acres were harvested and we saw a record U.S. wheat yield, over 9% higher than the previous record. Increased production and increased beginning stocks mean increased total supply in 1998-99 as shown in column two of Table 2.

Total use is expected to grow marginally, but almost entirely due to large feed use last summer. Exports have been very disappointing. While world production was down, total supply was the same for 1998-99. It appears that world use will be up 2%, but it is coming from a draw down in stocks versus an increase in trade, which is down nearly 10%. Soft red wheat seems to be losing favor with traditional buyers. SRW exports are expected to be 75 million bushels in 1998-99 versus 105 the year before and 300 million as recently as 1989-90. Shrinking aid shipments and declining importance of government procurement in other countries have played a role in the decrease of SRW versus other varieties.

U.S. ending stocks for 1998-99 is projected to be a 980 million bushels, 41% of use. When you have 4 bushels left over for each 10 bushels used it means low prices. And, it appears producers are once again making the expected adjustment as planted winter wheat acres were down 3.1 million acres, although Michigan producers planted 620,000 acres, up 20,000 from the previous year. However, Illinois, Indiana, and Ohio plantings were down 15-21% across the three states and total U.S. soft red acres were down 12%. I expect spring wheat acres to be up slightly as some of last year's winter wheat acres move back to spring wheat.

With trend yields this summer production is expected to be down significantly in 1999-00, as shown in Table 2. However, total supply will not drop nearly as much due to the large beginning stocks. For ending stocks to drop we will need to see an increase in exports. Feed use is likely to remain strong, but it's still expected to drop off with the projected low corn prices.

A middle-of-the-road projection has ending stocks dropping to 34% of use and U.S. prices increasing 25 cents per bushel. However, with Michigan soft red wheat prices expected to remain 30-40 cents below the average for all U.S. wheat prices for 1999-00, the returns to wheat will remain poor, much like the rest of our alternatives.

## **Soybeans**

Soybean prices are the pits right now. And, with the relative loan rates telling producers to plant soys versus corn, even with the market prices saying leave the ratio the same, prices are expected to be lower in 1999-00. The picture for 1998-99 and 1999-00 are both laid out in Table



3, the Supply/Demand Balance Sheet for soybeans. More acres and the same yield meant more bushels were harvested this past fall. This, along with a little more beginning stocks, put total supply up 5%.

Exports are the life blood of the soybean market. And, while the worldwide demand for soybean products is strong, the world is, and about to be more, awash in soybeans. Crush in 1998-99 is expected to be near last year's levels, but while domestic meal use is expected to be up a million tons, exports are expected to be down a million and half tons. There is a like scenario for oil, although exports for both will still be higher than 1996-97. On top of that soybean exports are expected to be down 7%. Lower use and higher supply is not a good price scenario.

So what is the problem? In 1996-97 South America produced a record crop of over 41 MMT versus the U.S. 65 MMT. In 1997-98 South America smashed that record by over 25% producing 53 MMT. With normal yields this year they were expected to produce about 48-49 MMT, but it now appears they will produce 52 MMT to combine with our 75 MMT for 1998-99. This is a lot of beans to move world wide, and will lead to the highest ending stocks since the mid 80's.

Most analysts project soybean acreage will increase 1-2 million next year as the loan rate is 2.8 times the corn loan rate. Producers generally start switching some acres when the ratio goes over 2.5. My planted acreage estimate is less than that as I think there will be more total U.S. farm acres not planted, but I still show an increase. This leaves projected production for 1999-00 near 1998-99, but supplies a lot higher due to the huge carryin.

If South America goes back to trend yield next year, I expected exports to make marginal gains along with domestic use. But this will not come close to making up for the extra supply and I expect ending stocks to grow to over a half billion bushels for 1999-00. I hate to think about 1-2 million more acres being planted.

**Table 1. Supply/Demand Balance Sheet for Corn**

|                            | <b>Est.<br/>1997-98</b> | <b>Proj.<br/>1998-99</b> | <b>Hilker<br/>1999-00</b> |
|----------------------------|-------------------------|--------------------------|---------------------------|
|                            | (Million Acres)         |                          |                           |
| Acres Planted              | 79.5                    | 80.2                     | 79.8                      |
| Acres Harvested            | 72.7                    | 72.6                     | 72.8                      |
| Bu./Harvested Acres        | 126.7                   | 134.4                    | 131.2                     |
|                            | (Million Bushels)       |                          |                           |
| Beginning Stocks           | 883                     | 1308                     | 1786                      |
| Production                 | 9207                    | 9761                     | 9552                      |
| Imports                    | <u>9</u>                | <u>12</u>                | <u>12</u>                 |
| Total Supply               | 10,099                  | 11,081                   | 11,350                    |
| Use:                       |                         |                          |                           |
| Feed and Residual          | 5505                    | 5700                     | 5675                      |
| Food, Seed and             |                         |                          |                           |
| Ind. Uses                  | <u>1782</u>             | <u>1870</u>              | <u>1935</u>               |
| Total Domestic             | 7287                    | 7570                     | 7610                      |
| Exports                    | <u>1504</u>             | <u>1725</u>              | <u>1850</u>               |
| Total Use                  | 8791                    | 9295                     | 9460                      |
| Ending Stocks              | 1308                    | 1786                     | 1890                      |
| Ending Stocks,<br>% of Use | 14.9                    | 19.2                     | 20.0                      |
| Regular Loan Rate          | \$1.89                  | \$1.89                   | \$1.89                    |
| U.S. Season Average        |                         |                          |                           |
| Farm Price, \$/Bu.         | \$2.43                  | \$1.95                   | \$1.90                    |

Source: USDA and Jim Hilker.

**Table 2. Supply/Demand Balance Sheet for Wheat**

|   | <b>Est.<br/>1997-98</b> | <b>Proj.<br/>1998-99</b> | <b>Hilker<br/>1999-00</b> |
|---|-------------------------|--------------------------|---------------------------|
|   | (Million Acres)         |                          |                           |
| Acres Planted                             | 70.4                    | 65.9                     | 63.0                      |
| Acres Harvested                           | 62.8                    | 59.0                     | 56.0                      |
| Bu./Harvested Acres                       | 39.5                    | 43.2                     | 39.5                      |
|   | (Million Bushels)       |                          |                           |
| Beginning Stocks                          | 444                     | 722                      | 980                       |
| Production                                | 2481                    | 2551                     | 2212                      |
| Imports                                   | <u>95</u>               | <u>95</u>                | <u>93</u>                 |
| Total Supply                              | 3020                    | 3368                     | 3285                      |
| Use:                                      |                         |                          |                           |
| Food                                      | 917                     | 925                      | 935                       |
| Seed                                      | 93                      | 88                       | 90                        |
| Feed                                      | <u>248</u>              | <u>350</u>               | <u>275</u>                |
| Total Domestic                            | 1258                    | 1363                     | 1300                      |
| Exports                                   | <u>1040</u>             | <u>1025</u>              | <u>1150</u>               |
| Total Use                                 | 2298                    | 2388                     | 2450                      |
| Ending Stocks                             | 722                     | 980                      | 835                       |
| Ending Stocks,<br>% of Use                | 31.4                    | 41.0                     | 34.1                      |
| Regular Loan Rate                         | \$2.58                  | \$2.58                   | \$2.58                    |
| U.S. Season Average<br>Farm Price, \$/Bu. | \$3.38                  | \$2.65                   | \$2.90                    |

Source: USDA and Jim Hilker.

**Table 3. Supply/Demand Balance Sheet for Soybeans**

|   | <b>Est.<br/>1997-98</b> | <b>Proj.<br/>1998-99</b> | <b>Hilker<br/>1999-00</b> |
|---|-------------------------|--------------------------|---------------------------|
|   |                         |                          |                           |
|   |                         | (Million Acres)          |                           |
| Acres Planted                             | 70.0                    | 72.4                     | 72.7                      |
| Acres Harvested                           | 69.1                    | 70.8                     | 71.6                      |
| Bu./Harvested Acres                       | 38.9                    | 38.9                     | 38.8                      |
|   |                         |                          |                           |
|   |                         | (Million Bushels)        |                           |
| Beginning Stocks                          | 132                     | 200                      | 410                       |
| Production                                | 2689                    | 2757                     | 2780                      |
| Imports                                   | <u>5</u>                | <u>6</u>                 | <u>5</u>                  |
| Total Supply                              | 2826                    | 2963                     | 3195                      |
| Use:                                      |                         |                          |                           |
| Crushings                                 | 1597                    | 1590                     | 1610                      |
| Exports                                   | 870                     | 810                      | 860                       |
| Seed, Feed and<br>Residuals               | <u>159</u>              | <u>153</u>               | <u>155</u>                |
| Total Use                                 | 2626                    | 2553                     | 2625                      |
| Ending Stocks                             | 200                     | 410                      | 570                       |
| Ending Stocks,<br>% of Use                | 7.6                     | 16.1                     | 21.7                      |
| Regular Loan Rate                         | \$5.26                  | \$5.26                   | \$5.26                    |
|   |                         |                          |                           |
| U.S. Season Average<br>Farm Price, \$/Bu. | \$6.47                  | \$5.15                   | \$4.85                    |

Source: USDA and Jim Hilker.

## **MICHIGAN SUGARBEET OUTLOOK**

**John (Jake) Ferris**

Michigan sugarbeet acreage continued to rebound in 1998 with 177,000 acres planted and 173,000 acres harvested, according to the Michigan Agricultural Statistics Service. Harvested acres were 43,000 above the low in 1996, but still below the peak of 188,000 in 1995. Yields continue to be a problem for the industry. The 16 tons per acre registered in 1998 was the lowest since the mid 1960's, except for 1991 and 1996. The potential for the 1998 crop was excellent considering the early planting and minimal replant, but a very dry growing season slowed crop development.

The sugarbeet output in Michigan for 1998 was 2.768 million tons, down 9% from 1997 and 15% below the peak production in 1990. In contrast, the National Agricultural Statistics Service estimated a record U.S. sugarbeet crop of 32.660 million tons, 9.3% above 1997. The largest increases were in the Red River Valley of Minnesota and eastern North Dakota. Total beet sugar production is estimated at 4.5 million tons, with sugar from cane at 3.757 million tons, also a record. For calendar year 1998, production of high fructose corn syrup was 5.5% above 1997.

Even with these larger domestic supplies, sugar prices have been firm. The wholesale refined beet sugar price for Midwest markets in October 1998 to January 1999 averaged about 27.0 cents per pound compared to 25.2 cents for the same period the year before. The average price received by Michigan farmers for the 1997 crop was \$38.40 per ton, compared to \$41.64 on the 1996 crop and an average of \$35.73 for the previous three crops. Prospects are that the grower price on the 1998 crop will hold near the level on the 1997 crop, depending on the outcome of the sugar content. The outlook for prices on the co-products of molasses and beet pulp is not as favorable as on sugar.

With prices and net returns from sugarbeets remaining strong relative to other field crops, acreage will continue to expand in Michigan in 1999. If yields turn out to be in line with the average of the past 10 years (about 17 tons per acre), a crop of around 3.300 million tons would be produced, equaling the record of 1990.

## **FARM MANAGEMENT IMPLICATIONS FOR CROP PRODUCERS**

### **Gerry Schwab**

The year 1998, like most years, was a bittersweet year. Crop yields were above average in much of Michigan, although a band of drought occurred across mid Michigan that drastically reduced yields. The harvest season weather was excellent and helped make possible the crop yields, as illustrated in Table 1 below, that were close to expected trend yields.

The year 1999 is starting out somewhat different from 1998 in that the commodity crop price prospects as reflected in the futures market are dismal. Prices appear to be suffering from that which we (and others) do best; i.e., production. Supply and demand continue to be the primary factors determining the price of our commodity crops. Doing marketing in 1998, we became familiar with the term “loan deficiency payment” or LDP. If 1999 market price projections come to fruition, LDP will be a familiar event again in 1999 and will be part of your marketing activity.

What to do in 1999? Identify and evaluate alternatives on both enterprise selection and the input mix that determines costs. Are there other enterprises that might be considered? For example:

1. Specialty or identity–preserved crops enabled by new genetics as illustrated by high-oil corn or low saturate soybeans. These enterprises may require a contract to assure market access and are not immune to price-determining forces of supply and demand. As this market is thinner than for the commodity crops, price is potentially more volatile. Thus, more planning and coordination may be required before initiating these activities.
2. Adding value to crops currently being grown (value-added concept) can be a possibility; e.g., processing of alfalfa, finding and contracting a market for wheat straw.
3. Consider participation in the environmentally friendly programs as the Farm Service Agency administered programs including buffer strips and conservation reserve program (CRP).

Controlling input costs is a must do in 1999.

4. Machinery: Many, if not most, farmers have controlled all machinery services used. Consider sharing ownership (and use) of high investment cost machines. Sharing requires some compromise of farmer independence, but may be financially prudent. Evaluate alternatives to machine ownership; e.g., custom hire of machine services; leasing of machinery.
5. Land: Cash rent has been the preferred way for farmers to deal with landlords. Cash rent as contrasted to share renting avoids the requirement to keep track of production

for each field or landowner in order to split and determine land payment. However, cash rent also results in the land renter absorbing all risk of production and marketing. Consider share rental arrangements that share risk, renegotiate current cash rent, or negotiate flexible cash rental agreements with lower base rents that flex based on crop prices.

6. Variable Inputs:

Establish a price for inputs much as you do for your production. This may require shopping around or establishing an input-buying cooperative arrangement with your neighbors to obtain volume for price discounts.

Restructure your term debts to take advantage of currently low interest rates and rearrange length of loan to manage cash flow demands.

Consider reduced tillage methods to lower labor, fuel, and machinery costs.

7. Risk Management - Crop Insurance:

The premium subsidy for crop insurance has been increased in 1999. This program should lessen the out-of-pocket cost for insurance in 1999 or enable increased coverage for the same cost relative to 1998. Remember that drought was a very real event for many mid Michigan farms in 1998.

8. Risk Management - Financial Management:

Know where you are regarding your current financial position with respect to net worth and projected net income. Michigan State University Extension and the Agricultural Economics Department are currently conducting workshops entitled "Farm Financial Management in a Changing Environment." Contact your local MSU Extension office, this author, or this web site: <http://www.msu.edu/~schwab/schedule.htm> to see if one is within your reach. We are not aware of the cure-all for the current and projected situation, but would like to assist you in being pro-active as you take charge of your own farm financial situation.

**Table 1. Crop Yields and Production in Michigan and U.S. - 1998<sup>1</sup>**

|              | Unit | Michigan |                       | United States |                       | MI as %<br>of U.S. |
|--------------|------|----------|-----------------------|---------------|-----------------------|--------------------|
|              |      | Yield    | Production<br>(1,000) | Yield         | Production<br>(1,000) |                    |
| Beans, dry   | cwt. | 15.0     | 4,425                 | 16.1          | 30,828                | 14.3               |
| Corn grain   | bu.  | 111.     | 227,550               | 134.4         | 9,761,085             | 2.3                |
| Corn silage  | ton  | 12.5     | 3,000                 | 16.0          | 94,525                | 3.2                |
| Hay          | ton  | 2.85     | 3,565                 | 2.52          | 151,338               | 2.3                |
| Soybeans     | bu.  | 39.      | 73,710                | 38.9          | 2,756,794             | 2.7                |
| Sugarbeets   | ton  | 16.      | 2,768                 | 22.5          | 32,660                | 8.5                |
| Winter wheat | bu.  | 54.      | 30,780                | 46.9          | 1,880,605             | 1.6                |

<sup>1</sup>Michigan Agricultural Statistics Service, "Agriculture Across Michigan," Vol. 20, No. 1, January 1999. <<http://www.mda.state.mi.us/mass/>>



## **1999 ANNUAL HOG AND CATTLE OUTLOOK**

**Jim Hilker**

### **Hogs**

Pork production for the first half of 1999 will continue above a year ago, but production will fall off in the second half of 1999. And, just as economics would then dictate, prices for the first half of 1999 will fall below 1998 and prices for the second half will be higher than 1998, not that it would be hard to do. The December Hogs And Pigs Report showed the industry was in liquidation due to poor returns since November 1997.

First quarter production is expected to be up 4-5% due to the June-August 1998 pig crop being up 4%. This will mean an average price around \$25/cwt., with prices being higher at the end of the period versus the beginning. Second quarter production is expected to be up 3-5% as the September-November pig crop was up 2% and more of the pig crop is expected to go to slaughter as liquidation continues. Prices are expected to average \$33-37 depending on whether the production increase is nearer to 5% or 3%. Again, prices should increase as we go through the quarter.

As we move to the third quarter, prices should continue to improve as year-to-year slaughter is expected to be even to down 2% as December-February farrowing intentions were down 1.2%. This should keep the average price in the \$36-40 range, and we will likely see prices over \$40 at times this summer. Farrowing intentions for the March-May period are 6.5% below last year and these are the hogs that will come to market this fall. The question is whether production will be down just 6% as producers do not save back extra gilts, or will more gilts be held back as we go in the second quarter of better returns? Production could be down as much as 10%. This could be the difference between prices averaging over \$40 or below \$36.

What demand assumptions do the above prices have? Exports are expected to increase 8-10% and imports are expected to be about the same. They also assume the beef production numbers in the cattle outlook and about a 5% increase in broiler production. You will hear that the demand for pork must be strong as we moved nearly 10% more pork with only a small decrease in USDA reported retail prices. I would argue that didn't happen, but rather the reported retail prices did not accurately reflect the retail prices, especially sales. Pork demand, after adjusting for income and other meats, has been decreasing for most of the past 20 years. I find it hard to believe it turned around last year by enough to keep the high reported retail prices.

### **Cattle**

Twenty straight months of feedlot losses and very few sustained periods of profits in the 1990's has brought about the third consecutive year of lower cattle inventory. The effects of these lower cattle numbers will start to positively affect cattle prices as we move through the year, but with the large amounts of competing meats and projected imports growing almost as much as projected exports the price increases are likely to be moderate. A big factor in how many cattle

come to market this year will depend on heifer retention. Another factor that could change the below estimates is weights.

Beef production is expected to be up 1% in the first quarter as we slaughter just a few less but weights are still up. This should lead to an average choice steer price of around \$62/cwt. Steer calf prices are expected to be in the low \$80's and yearling steers in the low \$70's, with low corn prices helping their values. Second quarter production is expected to be down about 2% leading to steer prices in the \$63-68 range. Steer calf prices may jump into the upper \$80's and yearlings steer may find their way into the mid \$70's.

Beef production is expected to be down about 5% for the second half of 1999 with higher heifer retention being part of the reason. This should put third quarter choice steer prices in the \$62-66 range versus the \$60 we saw in 1998. Steer calf prices are expected to fall back into the low \$80's and yearly prices remain in the mid \$70's. As we move into the fourth quarter choice steer prices should average in to mid to upper \$60's as calf prices remain over \$80 and yearling prices fight into the \$76-79 arena.

## **FARM MANAGEMENT IMPLICATIONS FOR LIVESTOCK PRODUCERS**

**Laura Martin and Gerry Schwab**

A mountain of meat, lack of packing capacity, less than ideal trade situations, and record profits for packers and retailers have been the headlines in the livestock industry in 1998. The “mountain of meat” is expected to continue in 1999, with predictions suggesting a record meat tonnage of nearly 80 billion pounds. This has been great news for the packers, retailers, and consumers, but not such a sweet tune for livestock producers. Record low prices in the pork industry and continued below break-even prices in the beef industry have resulted in an incredibly painful year for Michigan’s livestock producers.

On the flip side of things, there are signs that the worst is behind us and we do expect to see a turn-around sometime this summer. This certainly will be a much needed and welcome relief for feedlots who have experienced dismal prices over the last few years and for pork producers who felt the sharp pain of single digit prices during the fourth quarter of 1998. As we head into 1999, ask yourself if you know the financial position of your livestock operation and how well you can and have weathered the storm? Do you have a management strategy to get through the next year? Are you doing all that you can to maximize profits by minimizing costs and choosing an appropriate marketing strategy?

On the beef side of things, the industry’s biggest challenge continues to be to stabilize falling consumer demand. Although we had anticipated that the industry would move into the upswing of the cattle cycle in 1998, it just didn’t play out that way. The enormous quantities of pork and poultry that reached the market this year placed increased downward pressure on cattle prices. The bottom line is that beef is still fighting for a stable share of the consumer’s dollar. This struggle continued to be felt upstream as live cattle prices rarely moved out of the mid \$50’s to low \$60’s range this past year.

For 1999, we have a few things on our side that provide a more optimistic outlook. First, on February 1, 1999, Michigan Department of Agriculture Director Dan Wyant announced that Michigan would not lose its accredited TB free-status. Rather, the USDA announced that it will issue an interim ruling on “split-state” status recognizing that the disease is limited to northeast Michigan. Second, we continue to have low grain prices that translate into low energy and protein costs for the livestock sector. In part this is a mixed blessing, however. If we had experienced \$5 corn at the same time as these unprofitable live price levels, herd liquidation for cattle and swine would have occurred much more quickly and perhaps we would have moved out of this bottom much sooner. Nevertheless, the low feed prices have taken a bit of the bite out of the low live prices. Third, there is some long-term market improvement in sight. By late spring or early summer we should see the possibility of prices in the mid \$60’s and then the chance for some positive returns to the feedlots. In the meantime, listed below are several management practices and ideas that you may choose to consider to maximize your profitability:<sup>1</sup>

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<sup>1</sup>Information provided by Michigan State University AoE Team, Kevin Gould, primary contributor.

*Cow-Calf:*

- Manage winter feed cost by developing a least cost ration from available feedstuffs.
- Review your mineral program for quality and cost comparisons.
- Breeding systems for profitable beef production – know your target market and produce what can be marketed.
- Evaluate health programs to add value to or increase production of your herd.
- Conduct a financial analysis of your operation to assess its strengths and weaknesses.

*Feedlot:*

- Remember that feed efficiency is the largest single factor in determining profitability – formulate rations that fit your feeding program and cattle.
- Market fed cattle when they reach 0.4" of backfat - beyond this level, cost of gain will generally outweigh any economic benefit in pounds sold.
- Attempt to market cattle by the load (50,000 pounds).
- Conduct a financial analysis of your operation to assess its strengths and weaknesses.

Michigan's pork industry took a double blow in 1998 with the closing of Thorn Apple Valley in the summer and single digit hog prices in December. Nationally, daily packing capacity dropped from about 418,000 to 384,000 between the beginning and end of 1998. At the same time, pork supplies were approximately 10% higher than in the previous year. The increase in live hog numbers and the decrease in shackle space created such a severe bottleneck that producers were left with record low hog prices during the last quarter of 1998 and huge financial burdens. First quarter 1999 prices are expected to remain low due to the high production levels and continued large beef and poultry supplies. However, there are signs that liquidation has occurred, especially in terms of gilt slaughter. Consequently, there is some relief in sight this summer as prices are expected to rebound into the upper \$30's to low \$40's and remain there for the rest of 1999. Bear in mind, however, that this is based on pork production dropping by about 10% and beef production dropping by about 7% (if the *Hog & Pigs Report* numbers play out, then this should be a good bet as to where we're heading; however, this is the same report that *underestimated* 1998 fourth quarter production numbers by around 3%). Right now, there is the possibility for producers to hedge into profit from late spring into next year – depending upon your level of risk aversion, you may want to lock in some marginal profits now rather than run the risk of waiting to see if the numbers play out as expected. In the meantime, listed below are several management practices and ideas that you may choose to consider to maximize your profitability (or minimize your losses):<sup>2</sup>

- Evaluate feed ingredients - for example, consider removing supplements at the end of the finishing ration.
- Be critical in your animal selection procedures – maintain strict culling protocols when handling marginal/poor doing pigs.

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<sup>2</sup>Information provided by Michigan State University Extension Swine AoE Team.

- Scrutinize your breeding herd - consider delaying boar purchases, keeping replacement gilts, culling marginal sows.

Because of the depressed market prices and the strain of reduced financial earnings during 1998, Michigan State University Extension, under the umbrella title *New Economic Realities: Taking Charge*, is offering multiple-day series of statewide financial management workshops for Michigan farm business owners and managers who believe in the benefits of conducting a financial analysis of their 1998 operation and preparing a plan for 1999. We strongly encourage you to consider attending these workshops so you can take a pro-active rather than a reactive stand in 1999 to your farm financial matters. For more information concerning *New Economic Realities*, contact either the authors of this article, your local District Farm Management Agent, or your county Extension office. In the meantime listed below are several financial management practices and ideas that you may choose to consider to improve your farm enterprise:

- Keep accurate and current financial records and *use* them to understand your financial position.
- Evaluate risk management tools – how much risk can you afford?
- Develop projected income statements and cash flow to help you write a financial plan.
- Develop a marketing plan and follow it.
- Talk to your lender – avoid surprises on both sides.

Michigan State University Extension has the staff and resources to help make sound business decisions. We encourage you to utilize our expertise as you and your family develop your plan for keeping your farm business viable during this difficult economic situation.

## **DAIRY SITUATION AND OUTLOOK**

**Larry G. Hamm & Sherrill B. Nott**

The Michigan dairy industry should enjoy a profitable year in 1999. Although milk prices will be lower than their historic levels of 1998, they still should be at levels that will sustain profits in light of the anticipated lower milk production costs.

### **Demand for Dairy Products Looks Solid**

Economic growth in the U.S. economy is predicted to continue although at a slightly lower pace than the last year. Retail demand for dairy products did not seem to be appreciably hurt by last year's high prices and, therefore, dairy product demand should continue to grow vigorously in 1999. The year ended with marketing channel inventory levels being depleted. Therefore, through the first part of 1999, additional supplies will be needed to restore working levels of cheese and butter inventories in the U.S. dairy marketing system. All this seems to point to demand increase of approximately 2% for 1999.

### **International Dairy Markets are Mixed**

Production is predicted to increase in the United States, Australia, Brazil and Argentina. Production increases will be offset by declines in production in New Zealand and Russia. World dairy trade, however, will continue to be stressed. The Asian financial crisis coupled with Russia's financial problems have helped force world dairy product prices downward. Again, U.S. domestic milk prices are likely to exceed those at world market levels limiting the use of export markets for U.S. dairy farmers to market surplus production in the U.S. Continued promotion of specialty U.S. dairy products combined with the aggressive use of Dairy Export Incentive Program (DEIP) are Michigan's dairy farmers best hope for keeping access to world dairy trade.

### **Supply Momentum is Building**

The all-time high record milk price will and has spurred milk production increases. On January 1, milk cow numbers in the U.S. were 1% lower than they were the year before. However, heifers per 100 cows were up 2.5% over 1998. Even though the new larger industrialized dairy farms appear to require more replacements, the heifer shortage should not be severe in 1999. In addition, the feed price situation (see below) is so positive that 1998's productivity problems with dairy cows may be erased. In fact, production per cow is likely to increase at least 2% in 1999 over 1998. Milk volumes in early 1999 are running much further ahead of seasonal patterns and are at near flush situation. Once manufactured dairy product pipelines are filled, the rush of milk to the market in the first half of 1999 will be oppressive.

### **Lower Milk Prices**

The 1999 BFP peak will be in January of 1999 at \$16.27. The BFP will fall to the low \$11.00 level in the first part of 1999 and only recover to \$13.00 by fall. For all of 1999, it is

anticipated that the BFP will average between \$12.40 and \$12.80 per hundredweight (cwt.). Michigan's all-milk price (gross price before deductions) will range between \$13.50 and \$13.80 for 1999. Clearly, these price levels are substantially below those seen in 1998. However, the average prices for 1999 will in all likelihood be the third highest BFP in history. Fortunately, the production cost side of the dairy profitability equation looks positive.

### **Farm Profitability in 1999**

Whole farm profit by any measure such as net farm income, or percent return on equity, will likely be at historically high levels for 1999. In the early months of the year, milk prices received look high. Cost components will be relatively favorable. Feed prices, which by some definitions comprise half of all costs on a dairy farm, will be low in 1999.

There is considerable certainty about low feed costs for the first half of the year. Dairies in the central and northern part of the state suffered from drought during 1998's growing season. This resulted in a shortage of roughage production. However, other parts of the state and the Midwest produced plenty of hay crops so supplies could be purchased at a reasonable price. Roughage prices are not expected to hit the very high levels seen in 1996 when there was a widespread hay failure throughout the U.S. Corn and soybean prices were low by the time harvest was under way in the fall of 1998.

These low prices appear to be with us until at least harvest in 1999. Given the current successful growing season in South America, and the expected level of 1999 plantings of soybeans and corn in the U.S., feed prices will likely continue to stay low, barring a severe adverse weather event. These factors will keep purchased protein and grain prices low. Even the cost of farm grown feeds should continue to stay level to decreasing, because low crop prices are keeping input prices in line. Petroleum products are currently in large supply. This will help hold down many crop and feed related production costs for the coming year.

Interest rates, at least nationally, came down during 1998. Many economists believe they will move down a bit more in 1999. This will only help those who borrow money, and have variable interest rate contracts. Perhaps some will refinance during 1999. One result of lower rates has been a wide variation in interest rates charged against outstanding balances on bank credit cards. Those who use this type of credit should shop carefully to insure their credit cards are of the low interest and minimal annual fee variety.

### **Other Costs**

The USDA reported the index of all prices paid for farm production items was 114 in December, 1998, down from 117 the previous December. This is a drop of 2.6% in all costs. The base index is 1990-92 = 100. Unlike several previous years, the index of prices paid for farm machinery, and for wage rates, from December 1997 to December 1998, did not go up.

A Barron's outlook article on December 30, 1998, predicted agricultural equipment sales could be down 15 to 20% in the U.S. in 1999. Perhaps price concessions could be negotiated for needed farm machinery in the coming months.

Computer hardware prices took a drop late in 1998. Currently you can buy a complete Internet ready system for well under \$1,000 and find a local Internet service provider for \$20 to \$22 per month. Information technology is being used to offset the shortage of managerial labor. Depending on which study you read in the last year, 20 to 40% of farmers are using the Internet to gather a variety of information, although the number actually making transactions on the web are considerably less. How are you reaping the benefits of this technology?

### **Environment**

The pressure to dairy in concert with a clean environment was increased a notch this past year. In Release No. 0373.98, the USDA and EPA stated the following: "In February 1998, President Clinton released the Clean Water Action Plan (CWAP), which provides a blueprint for restoring and protecting water quality across the Nation. The CWAP identifies polluted run-off as the most important remaining source of water pollution and provides for a coordinated effort to reduce polluted run-off from a variety of sources. As part of this effort, the CWAP calls for the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency (EPA) to develop a Unified National Strategy to minimize the water quality and public health impacts of animal feeding operations (AFOs)." Expect to spend time in 1999 learning how dairy farms in Michigan will be impacted by this activity.

### **Watershed Year for Dairy Policy**

As directed by the FAIR Act of 1996, the Secretary of Agriculture will issue a final ruling for the Federal Milk Marketing Order (FMMO) reform process. If producers approve the reform, the U.S. dairy industry will continue to operate under a combination of federal and state (California) milk marketing orders. If not unanimously approved, the U.S. dairy industry will move into a marketing environment without orderly marketing controls for the first time in 62 years.

On December 31, 1999, the U.S. dairy price support system disappears. Although the price support is \$9.80 (3.5% test) per cwt., it still is having a market impact. In the early part of 1999, the USDA's Commodity Credit Corporation will be purchasing surplus nonfat dry milk off of the market and supporting the price of nonfat dry milk in the U.S. The DEIP program is slated to continue starting July 1, 1999. However, it is not clear on the degree of commitment by the Secretary of Agriculture for vigorous DEIP activity. The combination of weakened DEIP and no price support can weigh heavily on manufactured dairy products toward the latter part of 1999.

The Secretary will likely announce the disposition of \$200 million market transition payments voted to the dairy industry in last year's budget bill. At the time the \$200 million payments were passed, dairy prices were at their all-time record levels. At the time of the



distribution of those funds, dairy prices may be in the \$12.00 per cwt. range. The \$200 million market transition payments will be a useful addition to farm income in 1999.

Early in 1999, the World Trade Organization (WTO) will rule on the milk trade dispute between Canada and the U.S. The outcome of that ruling will determine which directions the U.S. dairy industry may want to take in future policy debates. A ruling for Canada and against the U.S. may spur U.S. dairy farmers to seek legislative provisions to provide for an export subsidy program managed through private dairy institutions.

### **Summary and Conclusion**

The Michigan dairy industry will continue to undergo structural adjustment in 1999. Dairy profitability levels will be moderate, but should generally be positive for most of 1999. Major policy decisions will shape the marketing environment for the next millennium. Michigan will also have to adjust to the consequences of the tremendous processor and cooperative consolidation that took place in 1998. In many respects, the marketing rules for dairy producers have been and are being re-written dramatically. This year's events will help shape the milk marketing picture for years to come.

## **PROSPECTS FOR THE TART CHERRY AND APPLE INDUSTRIES**

**Donald Ricks**

### **Tart Cherries**

The tart cherry industry has been faced with difficult economic and market conditions for a number of years. A main reason for these difficulties is that the industry has been challenged by chronic supply-demand imbalances with surplus supplies which put downward pressure on prices.

Prospects for the future look considerably more promising for the tart cherry industry. There are a number of positive factors and trends which are likely to aid the industry's economic situation during the next few years. These include: (1) expanding overall markets, (2) a substantial reduction during the last two years in carryover stocks that are available to the market, (3) downward trends in bearing acres which will impact future supplies and (4) new industry approaches to reduce surpluses and strengthen returns.

In addition, the industry is working on coordinating its various industry programs to a greater extent than in the past in order to bring future benefits to the industry. For this purpose, a group of industry organizational staff have begun to meet regularly in order to most effectively coordinate their program efforts, to plan strategies to meet the industry's challenges, and to chart a course for a better future.

In each of the last two years there were large surplus supplies of tart cherries. In 1997 carryover stocks at the start of the season were unusually large at 80 million pounds (compared to desirable carryover commonly thought to be approximately 20 million pounds). This large carryover in 1997 added to the initial surpluses from a moderately large new crop that year. In 1998 the industry had one of the larger crops in recent years which contributed substantially to a supply surplus situation (which was reduced by the use of the marketing order program). In both 1997 and 1998, the actual crop size was considerably larger than the USDA's June estimate. A surplus size crop which gets bigger as the harvest progresses usually adds considerable extra challenges for the industry and additional downward pressures on prices.

In 1997 some unusually positive factors included: (1) exceptionally good quality fruit, and (2) an unusually large export demand, especially in Europe. The 1997 crop marketing year was also the first year of operation for the new federal marketing order program and the new CherrCo federated cooperative. The combination of these two new approaches in the industry somewhat reduced the surplus supplies that were available to the market and to a degree strengthened prices compared to what they would otherwise have been. There were significant variations in the returns to growers for the 1997 crop. Most people in the industry seem to agree that (a) slow cash flow to growers has been a problem, and (b) grower returns were still significantly less than adequate to meet the costs of typical growers.

For the 1998 crop marketing year, which is still in progress, some positive factors have included (a) a smaller carryover at the start of the year at 39 million pounds, and (b) somewhat

higher processed prices than in 1997. On the other hand, the 1998 crop involved more quality challenges than in 1997, especially in certain regions, and the export demand was temporarily less than in 1997. The raw product quality in some cases resulted in lower processed pack-outs per raw ton as well as lower raw grades. These both have influenced grower returns in a negative manner in many cases. The reduced export demand has resulted in smaller volume sold by the industry to date into these export markets and in some cases lower export prices than in 1997.

Final returns to growers for the 1998 crop are in many cases yet to be determined. Slow cash flow remains a troublesome problem for many growers. It appears that final returns to growers for the 1998 crop will vary considerably depending upon the circumstances of the growers and their processors.

Although the cherry industry has had to deal with challenging economic conditions during last year, this year and for a number of years, the several positive factors that are now evident indicate better times are likely in future years. (On the other hand, as everyone in the cherry industry knows, "every year is different in the cherry business" and accurately predicting the industry's future is very difficult.)

The growing market demand for cherries is an important positive feature. The overall market for U.S. tart cherries grew from an average of about 240 million pounds 10 years ago, to 270 million pounds at the start of the 1997 crop year, to about 290 million pounds likely at the start of next year's crop marketing year.

In addition to the growing demand, the industry's available carryover stocks have been lowered considerably. Carryover stocks decreased from 80 million pounds at the start of the 1997 crop to 39 million pounds going into the 1998 crop marketing year, and are expected by many in the industry to be down to perhaps 20-25 million pounds by the 1999 harvest. This reduction in carryover stocks, if it continues as expected, is an excellent recent improvement by the industry regarding a key market factor.

Bearing acreage in the tart cherry industry is also decreasing. The U.S. bearing acreage has declined from a peak of 49,600 acres in the early 1990's to 40,300 acres for 1998, or a decrease of 19%. Michigan's latest orchard survey shows a decrease in bearing age orchards from the state's peak of 34,400 in 1992 to 29,200 acres in 1998 – which is a decrease of 15%. This declining bearing acreage means that the industry is more likely to have somewhat smaller crops in future years than during the last few years. On the other hand, the large production during the last two years shows that the industry still has the capacity to sometimes, depending upon the weather, produce substantial crops.

An important aspect of the tart cherry industry's outlook is that the combination of expanding market demand, decreasing carryover stocks and declining bearing acreage will all help to provide a supply-balance that is likely to be more favorable during the next several years than in the past several. This will mean that a repeat of substantial surplus supplies is less likely to occur and the improved supply-demand balance should aid prices received by the industry. When grower prices do increase, many growers will say, "It is about time!"

The combination of the smaller expected carryover stocks by next summer and the expanding overall demand in recent years, has implications for the tart cherry marketing order program. That is, for next year, and probably during the next several years, since there is less likelihood of a surplus occurring than during the last two years, there will be a lower likelihood of a marketing order regulation, even if a moderately large crop occurs. If there is a surplus, it is more likely to be smaller than during the last two years, and hence there is a greater chance that any marketing order restriction is likely to be smaller than during the last two years.

## **Apples**

This year, Michigan apple markets and prices have been adversely affected by a number of factors related to world and national supply and demand conditions. One major troublesome factor is the large imports of Chinese apple juice concentrate into the U.S. at very low prices. This has had a major impact on the U.S. apple juice markets and a ripple effect on all processed apple markets, including peelers, as well as important indirect effects on fresh markets.

In addition to the low-priced imports of concentrate, Washington has had an unusually large crop in 1998. This has added considerably to U.S. supplies for both fresh and processing markets. At the same time, demand for exports of fresh U.S. apples, has fallen off because of economic slow-downs in several receiving countries such as in Asia. The reduced exports, which have been especially important from Washington in recent years, means even more 1998 supplies from Washington that they are therefore trying to market in the U.S. this year. The above combination of adverse supply and demand factors has put substantial downward pressure on apple prices in both the U.S. and in Michigan.

In response to the extremely low-priced imports of apple juice concentrate, the U.S. apple industry is working toward an anti-dumping suit aimed primarily at the Chinese imports. The anti-dumping actions are being led by the U.S. Apple Association and are strongly supported by the apple industry in Michigan and a number of other states. The anti-dumping suit is a well-targeted response by the U.S. apple industry in that it is aimed at one of the most important negative driving forces that are impacting U.S. apple markets. If the U.S. apple industry is successful in this anti-dumping suit, the remedy could provide a substantial positive impact on U.S. apple market prices.

An important factor for the apple market outlook for 1999 and beyond is: What will be the size of the crop, particularly in the State of Washington? If Washington's crop is down compared to the large crop in 1998, that can have a significant positive impact on U.S. supplies and hence prices.

The apple industry is exploring and pursuing a number of strategies which are intended to help improve on the difficult economic situation. These include (1) increased efforts for apple demand expansion in U.S. markets, (2) export expansion programs for a number of receiving countries, and (3) new marketing arrangements, partnerships and strategic alliances.

At the grower level, producers are undertaking a number of management strategies which may help them to adjust to the difficult market situation. Some of these strategies include: (1) emphasizing the production of high-quality as demanded by the market customers, (2) culling out some of the poorer blocks, and (3) exploring restructured financial arrangements, particularly to take advantage of the current low interest rates.

## **MICHIGAN FARM INCOME OUTLOOK FOR 1999**

**John (Jake) Ferris**

Features of the 1998 farm income picture in Michigan were sharply higher milk prices, moderate declines in cattle and egg prices and a collapse in hog prices. Most field crop prices were also significantly lower, both for 1997 crops sold in 1998 and 1998 crops sold in 1998. This list includes corn, soybeans, wheat, hay and oats. Prices for the 1997 potato crop sold in 1998 were above the year before, but the new crop fetched lower prices than in the previous year. Prices for the 1997 sugarbeet crop were below those from the 1996 crop, but above the average for the previous three crop years. Prospects for the 1998 crop are for similar prices as for the 1997 crop. The exception in the field crop picture was dry bean prices which averaged about the same as the year before in January to August with the new crop prices holding about 40% above the previous year.

Gross receipts from marketings in 1998 (as shown in Table 1) reflect, for the most part, the changes in prices relative to 1997. The volatility of prices and gross returns can be detected in this table. In terms of percent changes between 1997 and 1998, gross cash receipts for six commodity categories declined by 10% or more; in two cases the decline was between 5 and 10%; in three cases the increase in cash receipts exceeded 10%; and in the remaining three commodities, the change plus or minus was less than 5%. In other words, of the 14 farm products, delineated in Table 1, changes in cash receipts between 1997 and 1998 exceeded 10% on nine commodities, i.e., on two-thirds of the items.

Michigan producers sold more hogs in 1998 than in 1997, but received prices averaging almost 40% lower, dropping their gross returns by 34%. Because of the importance of dairy in the state, milk prices being \$1.75 per hundredweight (cwt.) higher in 1998 increased dairy returns by 13%, enough to about offset declines in other livestock sectors. Increased returns from dry beans and vegetables were not enough to offset declines in other field crops and fruit. Gross crop income declined about 4-5% from 1997. Cash receipts from all marketings in 1998 were estimated at \$3,478 million, down 3% from 1997.

These year-to-year percentage changes highlight the importance of the diversity in Michigan agriculture. On individual commodities, prices and gross receipts may vary substantially, but the net effect is usually modest.

The livestock outlook for 1999 is something of a reversal from 1998, with milk prices heading lower and cattle and hog prices moving up as farmers respond to the 1998 situation. Since the mid 1980's, milk production in Michigan fluctuated between 5.2 and 5.6 billion pounds even though milk cow numbers dropped fairly steadily from 400,000 in 1983 to 300,000 in 1998. Milk production per cow increased an average of 2% per year in this period. Similar patterns prevailed nationally, although the net effect was a 12% increase in milk production between 1983 and 1988. As an indication of Michigan dairy farmers' response to favorable milk price-feed grain ratios in 1998, milk cow numbers on January 1, 1999 remained at 300,000.

The liquidation phase in the cattle cycle is expected to support the hog market as well as cattle in 1999. Egg prices may continue lower. As indicated in Table 1, increased returns from cattle and hogs are not likely to offset declines in dairy. Also receipts in the "other" livestock category reflect the sharp drop expected in turkey production in the state as the major slaughterer, BilMar, ceased operations in January.

Lower crop prices which set in during 1998 will continue in the first half of 1999, bringing down returns on most field crops. Dry beans and sugarbeets may be exceptions. For new crops in 1999, prices should generally be higher than the year before, except possibly on dry beans, hay and sugarbeets. The Michigan Agricultural Statistics Service reported that Michigan farmers seeded 3% more wheat acres last fall. Some increase in corn and soybean acreage is anticipated. With normal weather and trend yields, production should exceed 1998 crop output with the exception of soybeans and potatoes.

While long-range weather forecasting is still in a formative stage, meteorologists have found predictive power in the variation in sea surface temperatures in the tropical Pacific, popularly known as El Niño (warm phase) and La Niña (cold phase). The La Niña phase has been associated with dry weather in the Corn Belt and also in Michigan. This bears watching as La Niña was prominent early in 1999.

As indicated in Table 1, gross sales from corn and soybeans in calendar 1999 are projected to continue to decline. Receipts from other field crops are forecast to hold steady or increase. Some drop in vegetable sales from the record level of 1998 would seem likely just as would be higher receipts on fruit from the low level of 1998. Gross sales from apples were particularly low in 1998. Greenhouse/nursery sales have been relatively steady and have been trending upward over the years, the basis for the estimate for 1998 and the forecast for 1999.

The forecast of gross cash receipts from marketings for 1999 at \$3,459 million is about the same as for 1998. Adding government payments and farm related income, total cash receipts are projected at \$3,737 million (Table 2). Government payments in 1998 were enhanced by the market loss assistance program.

Cash expenses are estimated to have declined in 1998. This is mainly attributed to lower prices farmers paid for feed, livestock, fertilizer and fuel. With these small declines in expenditures, net cash income is estimated to have increased in 1998. Further reduction in fertilizer and fuel prices will be much smaller in 1999 than in 1998, and feed and livestock prices will likely average higher for the year. With lower gross receipts and stable to higher expenses, net cash farm income in 1999 is projected to decline 6-7%.

**Table 1. Cash Receipts from Farm Marketings in Michigan,  
Calendar Years 1997, Estimated 1998, Forecast 1999\***

| Enterprise                               | 1997<br>mil. \$ | 1998<br>mil. \$ | 1999<br>mil. \$ |
|--|-----------------|-----------------|-----------------|
| <u>Livestock</u>                         |                 |                 |                 |
| Dairy                                    | 732             | 826             | 792             |
| Cattle and Calves                        | 218             | 192             | 220             |
| Hogs                                     | 218             | 143             | 157             |
| Eggs                                     | 62              | 58              | 55              |
| Other                                    | <u>122</u>      | <u>121</u>      | <u>86</u>       |
| Total Livestock                          | 1,352           | 1,340           | 1,310           |
| <u>Field Crops, Vegetables and Other</u> |                 |                 |                 |
| Corn                                     | 419             | 351             | 338             |
| Soybeans                                 | 402             | 373             | 353             |
| Wheat                                    | 106             | 80              | 85              |
| Dry Beans                                | 89              | 102             | 107             |
| Sugar beets                              | 126             | 130             | 139             |
| Potatoes                                 | 80              | 83              | 88              |
| Hay                                      | 51              | 40              | 40              |
| Vegetables                               | 219             | 254             | 237             |
| Other                                    | <u>68</u>       | <u>71</u>       | <u>72</u>       |
| Total                                    | 1,560           | 1,484           | 1,459           |
| Fruit                                    | 243             | 207             | 228             |
| Greenhouse/Nursery                       | 433             | 448             | 463             |
| Total Crops                              | 2,236           | 2,139           | 2,150           |
| -----                                    |                 |                 |                 |
| <b>GRAND TOTAL</b>                       | 3,588           | 3,478           | 3,459           |

\*Data for 1997 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 1993-99\***

|                     | 1993              | 1994  | 1995  | 1996  | 1997  | 1998  | 1999  |
|---------------------|-------------------|-------|-------|-------|-------|-------|-------|
|                     | <u>Million \$</u> |       |       |       |       |       |       |
| Gross Cash          |                   |       |       |       |       |       |       |
| Income              |                   |       |       |       |       |       |       |
| Farm Marketings     |                   |       |       |       |       |       |       |
| Crops               | 1,969             | 2,016 | 2,250 | 2,154 | 2,236 | 2,139 | 2,150 |
| Livestock           | 1,371             | 1,399 | 1,348 | 1,450 | 1,352 | 1,340 | 1,310 |
| Government Payments | 241               | 102   | 151   | 110   | 121   | 174   | 143   |
| Farm Related Income | 97                | 104   | 98    | 113   | 134   | 134   | 134   |
| Total               | 3,678             | 3,621 | 3,847 | 3,827 | 3,843 | 3,787 | 3,737 |
| Cash Expenses       | 2,533             | 2,578 | 2,552 | 2,563 | 2,779 | 2,686 | 2,708 |
| Net Cash Income     | 1,145             | 1,043 | 1,295 | 1,264 | 1,064 | 1,101 | 1,029 |

\*Data for 1993-97 obtained from Michigan Agricultural Statistics Service, Michigan Department of Agriculture, and the Economic Research Service, USDA. Values for 1998 are estimated and values for 1999 are forecast.