# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE GENERAL ECONOMIC OUTLOOK</td>
<td>Les Manderscheid and Robert Myers</td>
<td>1</td>
</tr>
<tr>
<td>INTEREST RATES TO REMAIN STABLE IN 2002</td>
<td>Steve Hanson and Robert Myers</td>
<td>3</td>
</tr>
<tr>
<td>TRADE AND POLICY OUTLOOK</td>
<td>David B. Schweikhardt and Sandra S. Batie</td>
<td>7</td>
</tr>
<tr>
<td>2002 OUTLOOK FOR PRODUCTION INPUTS</td>
<td>Chris Peterson</td>
<td>11</td>
</tr>
<tr>
<td>FARMLAND VALUES EXPECTED TO BE SLUGGISH IN 2002</td>
<td>Steve Hanson and Gerry Schwab</td>
<td>13</td>
</tr>
<tr>
<td>GRAIN OUTLOOK</td>
<td>Jim Hilker</td>
<td>15</td>
</tr>
<tr>
<td>MICHIGAN SUGARBEET OUTLOOK</td>
<td>Jake Ferris</td>
<td>23</td>
</tr>
<tr>
<td>FARM MANAGEMENT IMPLICATIONS FOR GRAIN PRODUCERS</td>
<td>Gerry Schwab</td>
<td>25</td>
</tr>
<tr>
<td>LIVESTOCK OUTLOOK</td>
<td>Jim Hilker</td>
<td>27</td>
</tr>
<tr>
<td>ISSUES AFFECTING LIVESTOCK PRODUCERS</td>
<td>Gerry Schwab and Laura Cheney</td>
<td>29</td>
</tr>
<tr>
<td>DAIRY OUTLOOK</td>
<td>Larry Hamm and Sherrill Nott</td>
<td>33</td>
</tr>
<tr>
<td>FRUIT OUTLOOK</td>
<td>Donald Ricks</td>
<td>37</td>
</tr>
<tr>
<td>MICHIGAN FARM INCOME OUTLOOK FOR 2002</td>
<td>Jake Ferris</td>
<td>39</td>
</tr>
</tbody>
</table>
One year ago we wrote, “Our economic crystal ball is clouded by psychological concerns”. We expressed concerns about the valuation of stocks, consumer reaction to the possible recession, and business as well as consumer confidence. We now know that a recession began in March. The stock market exhibited volatility with some downward drift. Finally, the events of 9/11 and the following weeks created great uncertainty about the state of the economy.

Most analysts believe that the recession is nearing an end. Auto sales have been helped by sales incentives and consumers are continuing to spend, especially as retailers have trimmed prices and inventory levels. Unemployment may continue to drift upward as firms will be reluctant to hire until the recovery is clearly under way. The reluctance reflects the cost of training, payment of unemployment if in fact the employee was not needed, and the fact that overtime in the short run may be less costly than the hiring and training process. Many State and local governments are facing deficits and are choosing between spending cuts and tax revisions. These governments are impacted by the significant reduction in bonuses and overtime which impact income and sales tax revenue.

The global economy is also faltering. Global economic growth in 2001 was the slowest of any year since 1993, and only a modest rebound is forecast for 2002. The combination of sluggish world growth and a strong dollar should continue to constrain farm exports in 2002. Three concerns are important as we look ahead—business earnings, productivity, and global growth.

Fallout from the Enron debacle has reduced investor confidence in the earnings reports filed by companies even though accounting firms have certified the earnings as being calculated following “generally accepted accounting principles”. Henry Kaufman, the “bond wizard” of Wall Street has been warning that little or no regulation existed for many of the newer “creative financing arrangements”. He argued that democratic governments traditionally establish regulations as a reaction to problems rather than to proactively preventing abuses and problems. Investors demand a risk premium for uncertainty. Most analysts expect that risk premiums have increased since Enron and reported earnings will need to increase before stock market prices increase.

Productivity was a driving force in the economic growth of the 1990’s. Increased productivity came from several sources including capital spending, new technologies and a better-trained work force. Many economists are skeptical that productivity will return to the growth rates of the 1990’s after the current recession ends. Dale Jorgenson who is recognized an expert in explaining productivity is optimistic because the gap between the best technology and the average technology used actually widened in the 1990’s. If capital spending increases after the recession and if new technology continues to be developed, he argues that productivity growth in the next few years may be similar to that of the 1990’s. Thus the challenge for policy makers is to ensure the further development of technology, and to provide a base for profitable investments.
and increased productivity. High productivity is necessary for improved personal incomes with a stable price level.

Finally, a prosperous agriculture requires a prosperous global economy. Thus, the future direction of the global economy is as important to the prospects for agriculture as the future direction of the U.S. economy.
INTEREST RATES TO REMAIN STABLE IN 2002
Steve Hanson and Robert Myers

The slowdown in the general economy, and subsequent Federal Reserve actions, caused interest rates to decline to historically low levels in 2001. Table 1 shows the September 2001 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 weighted average interest rate charged on operating loans dropped over two percentage points to 8.01% and the weighted average rate across all types of real estate loans fell to 7.47%, a decline of almost two percentage points from the previous year. No results were reported separately for loans rates by commercial banks in Michigan, but these rates typically run slightly above Seventh District average.

Recent interest rates offered by GreenStone Farm Credit Services for Michigan loans reflect the general decline in short term rates last year. Table 2 presents current rates for select loan products. The range in rates is based on the credit quality of the loan using an internal scorecard. Operating loans are currently available at fixed rates ranging from 5.20% to 7.20%, which is substantially below the corresponding rates for the same period a year ago. However, 30-year fixed rate loans for farm real estate remained virtually unchanged and range from 8.55% to 10.05%. GreenStone’s weighted average rate across all real estate loan products was 6.37% at the end of December 2001.

Interest rates for the general economy are shown in Table 3. Short term rates fell significantly last year as the Federal Reserve Bank became less concerned about inflation and reduced rates in order to jumpstart the economy. Long-term rates also fell slightly but not nearly as much as short-term rates. The federal funds rate, the interest rate the Federal Reserve Bank charges member banks to borrow funds, dropped over 4% last year to 1.74%. The prime rate, which is the loan rate that banks charge to their best customers followed the federal funds rate dropping from 9% to 4.75%. 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 (1.58%), the intermediate-term rates on the 1-year T-note (2.03%), and the long-term rate on the 10-year T-note (4.92%) you see that the “yield curve” has upward slope in that the interest rate increases with the time to maturity. This suggests that investors (lenders) believe inflation and interest rates will increase slightly during the upcoming year and then continue to increase in future years. However, the relatively flat yield curve suggests that the expected changes in inflation and interest rates continue to be somewhat modest.
As the general economy stabilizes and begins to recover look for the Federal Reserve to hold short term rates near their current levels, and eventually begin to increase them modestly as the economy picks up steam. Although current rates are favorable and lenders generally have funds to lend, continued low commodity prices may cause some borrowers and lenders to exercise caution and not extend themselves too far. A continued concern among some lenders is the 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

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>End of September 2000</th>
<th>End of September 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh Federal Reserve District</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loans</td>
<td>10.17%</td>
<td>8.01%</td>
</tr>
<tr>
<td>Feed Cattle</td>
<td>10.14</td>
<td>8.07</td>
</tr>
<tr>
<td>Real Estate</td>
<td>9.42</td>
<td>7.47</td>
</tr>
</tbody>
</table>


Table 2. Farm Credit Services Loan Rates

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Late January 2001</th>
<th>Late January 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Loans (fixed)</td>
<td>7.50-9.50%</td>
<td>5.20-7.20%</td>
</tr>
<tr>
<td>Intermediate Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-year (adjustable)</td>
<td>7.85-9.85</td>
<td>7.25-9.25</td>
</tr>
<tr>
<td>5-year (fixed)</td>
<td>7.50-9.50</td>
<td>6.55-8.55</td>
</tr>
<tr>
<td>Real Estate Loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-year (adjustable)</td>
<td>6.35-7.85</td>
<td>4.55-6.05</td>
</tr>
<tr>
<td>3-year (adjustable)</td>
<td>6.75-8.25</td>
<td>5.70-7.20</td>
</tr>
<tr>
<td>30-year (fixed)</td>
<td>8.50-10.00</td>
<td>8.55-10.05</td>
</tr>
</tbody>
</table>

Source: GreenStone Farm Credit Services (www.greenstonefcs.com).
<table>
<thead>
<tr>
<th>Rate Type</th>
<th>Mid-January 2001</th>
<th>Mid-January 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Funds Rate</td>
<td>5.91%</td>
<td>1.74%</td>
</tr>
<tr>
<td>Prime Rate</td>
<td>9.00</td>
<td>4.75</td>
</tr>
<tr>
<td>90-Day CD</td>
<td>5.58</td>
<td>1.65</td>
</tr>
<tr>
<td>90-Day T-Bill</td>
<td>5.13</td>
<td>1.58</td>
</tr>
<tr>
<td>1-year T-Note</td>
<td>4.79</td>
<td>2.03</td>
</tr>
<tr>
<td>10-year T-Note</td>
<td>5.08</td>
<td>4.92</td>
</tr>
<tr>
<td>30-year T-Bond</td>
<td>5.50</td>
<td>5.37</td>
</tr>
<tr>
<td>Corporate Bonds (AAA)</td>
<td>7.13</td>
<td>6.47</td>
</tr>
<tr>
<td>Conventional Mortgages</td>
<td>6.89</td>
<td>6.83</td>
</tr>
</tbody>
</table>

TRADE AND POLICY OUTLOOK
David B. Schweikhardt and Sandra S. Batie

The continued slow growth of the worldwide economy, combined with a continued strong value of the dollar against other currencies, is expected to dominate the outlook for U.S. agricultural exports in 2002. Europe, Japan, and most developing countries remain in recession at the beginning of 2002, and a recovery in most countries is not expected until late in the year. This slow growth will limit the growth in worldwide demand for agricultural exports, including U.S. exports. Canada and Mexico are expected to increase both their purchases of U.S. food products and their shipments of food products to the United States in 2002.

U.S. Agricultural Trade Outlook

U.S. agricultural exports are expected to increase to $54.5 billion in 2002, an increase of $1.5 billion over 2001 (Figure 1). Export volumes are expected to remain steady for several commodities compared to 2001. The export volume of wheat is expected to increase from 25.2 million tons in 2001 to 27.9 million tons in 2002. Corn exports are expected to increase to 52 million tons for 2002, compared to 48.2 million tons in 2001. Soybean and soybean meal exports are expected to remain steady at 33 million tons.

Exports in other product categories are expected to have a mixed outlook for 2002. Beef and pork exports are expected to decrease by $300 million to $4.6 billion in 2002. Poultry exports, at $2.6 billion, and dairy exports, at $1.1 billion, are expected to increase by $100 million each in 2002. Fruit and vegetable exports are expected to increase by $300 million to $11.3 billion.

U.S. agricultural imports are expected to remain steady at $39 billion in 2002, a level nearly identical to 2001. Increased imports of horticultural products are expected to be the category with the largest change, with an increase of $300 million to a projected $16.7 billion. Canada ($9.7 billion) and Mexico ($5.5 billion) are projected to continue as the two largest suppliers of U.S. agricultural imports.

The destination in which U.S. exports are sold continues to evolve, with an increasing share of U.S. exports being sold in countries of the Western Hemisphere. Asia ($21.2 billion) is projected to retain a slight edge over the Western Hemisphere ($20.3 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 $18.4 billion in 1999, and has recovered slowly since 1999. Lead by increasing exports to Canada and Mexico, a larger share of U.S. exports are now destined for markets in the Western Hemisphere. For the first time in recent history, U.S. exports to the Western Hemisphere will nearly equal the value of U.S. exports to Asia in 2002.

Japan remains the largest customer for U.S. agricultural exports, purchasing a projected $9.0 billion from the United States in 2002. Canada continues to close the gap as the second largest customer for U.S. products, with U.S. exports to Canada projected to reach $8.5 billion in 2002 (an increase of $500 over 2001). Mexico will continue as the United States' third largest
export market at $7.7 billion, or $300 million greater than in 2002. 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 to Mexico were $3.6 billion in 1993, the year prior to the approval of NAFTA, and have increased in each of the last 6 years. In addition, U.S. agricultural exports to Mexico are now greater than the value of U.S. exports to the entire European Union (projected at $6.7 billion in 2002).

**Trade and Domestic Policy Outlook**

After failing to reach agreement on a new farm bill in 2001, Congress will continue the process of writing the 2002 farm bill. At least two scenarios could be important for farmers as they make decisions in 2002. If Congress moves quickly in passing a farm bill during the first quarter of the year, farmers might be required to make a rapid change in plans for the 2002 crop year. If Congress is unable to move quickly, however, farmers can expect to continue operating under the rules of the 1996 farm bill for the 2002 crop year.

On the international front, a new round of multilateral trade negotiations began under the auspices of the World Trade Organization in November 2001. That meeting – which established an agenda for the next round of negotiations – is the beginning of a negotiating process that could require 3 to 5 years of more. Consequently, farmers should not expect a major change in trade policy in the immediate future.
2002 OUTLOOK FOR PRODUCTION INPUTS
Chris Peterson

The old expression, “no news is good news,” is an apt description for the 2002 outlook for productions inputs. Few supply or price problems appear on the short-term horizon. One of the most competitive marketplaces in years will likely lead to a good cost position for producers.

Fertilizer

Supplies are adequate to ample across the whole range of fertilizer components–nitrogen, phosphates, and potash. Nitrogen supplies are good after a number of years of problems, and prices are dramatically down from this time last year. As long as economic recovery in the rest of the economy remains slow, pressure on nitrogen supplies and prices is not likely to arise. Some transportation bottlenecks and smaller amounts of nitrogen imports may make some in season supplies tighten, but this should not be a significant risk. Longer-term, the economic recovery may well bring back the wide swings in nitrogen supplies and prices because the underlying fundamentals of contracting industry capacity have not really changed.

No problems with the supply or price of phosphates and potash appear on the short-term horizon. Longer-term, weak supplier profitability may fuel more consolidation and a firming of the these markets in future years.

On the strength of good supplies and prices for fertilizers, overall demand may be up this year. Last year’s high prices caused some producers to cutback on usage. In contrast, this appears to be a positive environment for replenishing soil nutrients.

Chemicals

Supplies of ag chemicals are more than adequate with intense competition among suppliers likely to keep downward pressure on prices for widely used chemicals. Generic supplies of glyphosates appear to be of growing availability in the state, particularly moving up from the South with international origins. Producers need to carefully weigh pure price issues against access to and quality of accompanying services and seed programs from more traditional suppliers and retailers.

As the profitability of broad-use products has become challenged, suppliers are putting more emphasis on specialty chemicals for crops such as sugar beets and dry beans. These prices are likely to be slightly up rather than down.

Seeds

Seed supplies and prices also appear to be favorable for this year. The only note of concern is that supplies of particularly popular varieties may be tight as the season progresses. Locking in those supplies as soon as possible may make good sense. Price competition is keen,
often being expressed through supplier programs that combine specific seed and chemical products.

Energy

Energy prices are dramatically down from last year—yet another piece of good news for farm costs. Supplies and prices appear to be favorable for now. The questions in energy markets going forward are whether OPEC can regain its bite in the marketplace and whether economic recovery will expand rapidly enough to impact in-season fuel prices. Neither of these seems to be a likely source of trouble for this year.

Overall Outlook

The bottom line appears to be that this is the most favorable input outlook in years for farm costs. The only black cloud that some of my sources cited was whether the capital would be there to finance the inputs given last year’s farm profit and yield difficulties in the state. This may darken an otherwise bright demand forecast, but it will not likely have any negative impact on supplies and input prices.
FARMLAND VALUES EXPECTED TO BE SLUGGISH IN 2002
Steve Hanson and Gerry Schwab

Michigan farmland values increased again in 2001, continuing their string of year-to-year increases. Although land prices increased in most areas of the state, the rate of increase slowed below that of year 2000. The annual land value survey conducted in spring 2001 by the Department of Agricultural Economics at Michigan State University found average farmland values to be:

<table>
<thead>
<tr>
<th>Type of Land</th>
<th>Value (per acre)</th>
<th>Change from Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiled field crop land</td>
<td>$1,895</td>
<td>up 8.4%</td>
</tr>
<tr>
<td>Untiled field crop land</td>
<td>$1,649</td>
<td>up 7.7%</td>
</tr>
<tr>
<td>Sugarbeet land</td>
<td>$1,905</td>
<td>down -0.4%</td>
</tr>
<tr>
<td>Irrigated land</td>
<td>$2,250</td>
<td>up 4.7%</td>
</tr>
</tbody>
</table>

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 2000 to October 2001. Last year’s gains marked the 15th 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 renting appears to be the preferred method of controlling leased land and these rates exhibited little change during the last year. Forty-seven percent (47%) of total crop acres were controlled through leasing arrangements, with 73% of the leased land operated using cash rental arrangements. The average cash rent levels in the state were:

<table>
<thead>
<tr>
<th>Type of Land</th>
<th>Rent (per acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiled field crop land</td>
<td>$83</td>
</tr>
<tr>
<td>Untiled field crop land</td>
<td>$60</td>
</tr>
<tr>
<td>Sugarbeet land</td>
<td>$116</td>
</tr>
<tr>
<td>Irrigated land</td>
<td>$126</td>
</tr>
</tbody>
</table>

Additional details on land values and cash rents across the state are reported in the Department of Agricultural Economics Report No. 611 on 2001 Michigan Land Values. This publication will soon be available at the MSU Agricultural Economics web site http://www.aec.msu.edu/agecon/aecreports/index.htm.

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. The 2001 drought conditions combined with low prices for many commodity crops dampened the market for farmland late in the year. The Federal Reserve Bank of Chicago survey found that farmland prices in Michigan actually fell 2% in the third quarter of 2001. The expected continuation of low prices in 2002 for many Michigan produced crops should continue to dampen demand for land in 2002 as farmers continue to find it difficult to justify current land prices based on agricultural-use valuations. Government payments were a large contributor to net farm income in 2001. Relying on income from government support programs to remain economically viable is a major concern.
as we near the end of the current farm bill in 2002. Current debate over the new farm bill increases the uncertainty about the form and amount of protection provided by government programs. If uncertainty increases, the willingness and ability of farmers to pay increasingly high prices for farmland will diminish.

Michigan farmland prices are also heavily dependent on the non-agriculture sector. The recent increases in the unemployment rate and declines in corporate earnings have sent a clear signal that the general economy is not growing at the rapid pace of the last half of the 1990's decade. If non-farm income growth continues to slow, 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 increase at a more modest rate or perhaps level off 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 continues to struggle; Michigan could experience both agriculture and non-agriculture forces exerting significant downward pressure on the demand for land. If the economy does not recover, expect a leveling off in the average price for farmland. Of course, there will be 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

CORN

A summary of the annual 2002 corn outlook can be found in Table 1, the Supply/Demand Balance Sheet For Corn. The 2002 corn outlook is made up of the second half of the September 1 - August 31, 2001-02 marketing year and the first half of the 2002-2003 corn marketing year. So in summary I expect corn prices to average between $2-2.20 per bushel for 2002, with an upwards trend. We all know that the situation can change dramatically, and we will discuss the most volatile factors, but we need to lay down a baseline forecast for planning purposes.

Even though U.S. corn acres harvested were down almost 4 million acres (5%) in 2001-02, total supply was only down 2.4%. The reasons for the smaller decrease in total supply than harvested acres were the much larger beginning stocks and a higher yield. The 138.2 bu/ac yield was the second largest on record, only being smaller than the 138.6 bu/ac yield in 1994-95. Unfortunately as we all know Michigan did not share in the bountiful yields. The average 2001 Michigan corn yield of 105 bu/ac was close to 20% below trend, and when we get the county data we may find multi county areas 50% below trend. There were many individual producers that harvested only about a third of their normal corn crop.

Feed use in 2001-2002 will be near last year as grain consuming animal units are forecast to be near the same levels and weights will continue to increase. Broiler numbers are expected to increase, hog numbers will be up a bit, mostly in the third quarter, and cattle numbers will be down. Food, seed, and industrial use (FSI) will increase as ethanol plants multiple and we start in earnest to make the switch over from MBTE to ethanol.

Corn exports are expected to grow for the year as a whole, but all that growth is expected to come in the second half of the marketing year. After the first five months of the marketing year we were running 60 million bushels behind. Brazil and China are two of the countries that have been major export competitors to this point, but will be smaller players from March through August. Another factor is the sharply smaller corn crop Argentina will harvest this spring versus last spring. Total use is then forecast to be up 151 million bushels (1.6%).

The 2.4% smaller total supply and the 1.6% increase in total use added up to a 22% decrease in projected ending stocks. This will help prices both this year and next as the ending stocks for this year become the beginning stocks for next year. As seen in Table 1, ending stocks as a percent of use are projected to be 14.8%. While this is still 500 million bushels more than the market demands for pipeline needs, it is a huge improvement over the burdensome stocks the past two years. I expect the annual average corn price for 2001-02 to be about $2.00/bu. This means we will half the average over $2.00 the last half of the marketing year.

To complete the forecast for the 2002 year we must discuss the 2002-03 corn marketing year. Corn acres are expected to increase for several reasons. One reason is we don’t expect another wet spring; last year producers were not able to plant as much corn as they had planned.
Between corn, wheat, and soybeans, there were 2.5 million acres of prevented plantings. There is likely to be a few more acres of corn in cotton country as the relative price of corn versus cotton has improved. The lower energy costs this year versus last and the higher corn price versus soybean loan rate appears like it will make corn look a bit better than last year as well. I am forecasting 78.3 million acres of corn will be planted, other estimates range from 76-80 million. That variation in projections adds to the uncertainty in prices, as if the yield uncertainty isn’t enough. A trend yield of 139.5 bushels an acre is used in the projection.

Grain consuming animal units are expected to increase next year as cattle fed will likely only fall a bit and other hog and poultry numbers will increase. Weights of both cattle and hogs do not show any signs of changing their upward trend. The reason I do not increase corn-for-feed any more than I do, is due to the huge increase in my projected ethanol production to be discussed next. A huge by-product of ethanol production is feed. So the animals will still get the corn, it will just come from a different line on my balance sheet.

I project FSI use will increase 155 million bushels in 2002-03 and 145-150 million bushels of that increase will be used for more ethanol production. Enough new plants are being built now, so there should not be a lack of processing capacity. On the demand side, if just California sticks to its plan to replace MBTE, with ethanol being the only suitable replacement, we will need that much more ethanol, not to mention the needs in other parts of the country that need to switch.

I am projecting increase in exports based on world trend yields and continued economic growth. Or in other words, there are many things that could change the forecast in either direction, primarily world weather. At this point it appears soybeans will continue to be a relatively better crop for South American expansion. There also should be no export subsidies on Chinese corn. However, the China situation could still go either direction for the short term. If they have a good yield they will likely have corn to export, if they have a poor yield they will likely import a marginal amount corn.

Projected ending stocks are expected to decrease again. Ending stocks to use of 12.5% means both higher prices, a projected $2.20/bu, and more volatility as there are less stocks to fall back on. However, two million more acres and 2 more bu/ac and prices are back under loan rate, or 4 less bu/ac than trend yield and prices may push $2.50/bu.

WHEAT

Is this the year, or will it be next year? Total supply for this June 1 - May 31 marketing year, 2001-02, was down 10%. The lack of a greater increase in prices show how much excess we were carrying. But there are some other negative factors. Feed use is down with the price of wheat being higher relative to corn, and exports are down with a reasonable world crop. A summary of the 2001-02 wheat year is in Table 2.

The good news is that ending stocks for the 2001-02 crop are projected to be down 24% and that trend is expected to continue. Not only is the trend of lower ending stocks projected for
the U.S., but also for the world as a whole. In fact, world stocks as a percent of use are as low as
the early 70's when wheat prices were high. On the one hand, the U.S., Canada, and Europe hold
the excess stocks, so the world is not worried. But on the other hand, it will not take much of a
world cutback for prices to increase dramatically.

The USDA Winter Wheat Seedings Report showed that winter wheat acres for the 2002-
03 crop would be about the same. I think spring wheat seedings may be up a bit, accounting for
the slight increase shown on Table 2. However, trend yield would be a little higher than this year
and we generally harvest a little higher percentage of the acres. This means higher projected
production. The winter drought in many hard red winter areas may decrease yields and harvested
acres if the moisture situation doesn’t improve. In total we expect supplies for the year to
decrease as the increase in production is not expected to match the decrease in beginning stocks.

Use is not expected to increase much as corn will continue to be cheaper that wheat-for-
feed and there is no reason to expect a big increase in exports. But the end result is still positive
for wheat prices. Ending stocks are expected to decrease and as a result, prices are expected to
increase.

SOYBEANS

We have gobs of soybeans for the 2001-02 marketing year, and it appears we will have
gobs of soybeans for the 2002-03 soybean marketing year. The sick feeling is summarized in
Table 3. The U.S. harvested lots of acres of soybeans last fall, the country had the second highest
yield on record, we brought plenty of soybeans into the marketing year, South America had a
great crop last year and is expected to have an even better crop this year. Brazil and Argentina
combined are expected to harvest 90% of the soybeans we harvested last fall this spring.

So is there any good news? Yes, and believe it or not, if it were not for this good news,
prices would be worse. World demand for soybeans has been nothing short of amazing. And
even with these huge increases in supply from year to year, it would only take one small shortfall,
such as a two bushel decrease in yields here and in South America, to rid us of the excess stocks.
Michigan soybean yields were ditto corn, at 30bu/ac, down 25% from trend.

Crush and exports to date are running at record levels, and are expected to set new marks
for the year. However, the rate of U.S. soybean exports are expected to drop sharply as South
American soys become available. Despite the projected increase in use, ending stocks are
expected to grow. The higher ending stocks-to-use figure is the cause for the low prices we are
seeing now. And I can’t see any reasons for a sharp increase unless we have a weather problem
this summer.

So what about next year. 2002-03? Even with the increase in corn acres there will be
enough acres to make at least a marginal increase in soybean acres. The increase in corn prices
and projected returns may be enough to get the prevented planted corn acres back and some
cotton acres, but the soybean loan rate is still relatively good compared to the “maybe” better
corn prices to pull any acres away from soybeans in total. A trend yield for next year would be
about the same as this year’s actual yield. Given this scenario, production would be slightly higher, beginning stocks are higher, making total supply a little higher.

I am projecting crush will continue to grow, but it is unclear how much this number may be affected by the increase in the feed by-products from ethanol production. The odds are South America will continue to sharply increase their soybean acreage, due to their low land costs today’s prices still show a positive return. This leads me to believe that significant increases in our year-to-year soybean exports will take a weather problem in South America.

Overall, total use should be up, but less than total supply. This means larger projected ending stocks. This also means prices in 2002-03 will be about the same as this year.
<table>
<thead>
<tr>
<th></th>
<th>Estimated 2000-01</th>
<th>Hilker. 2001-02</th>
<th>Hilker 2002-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Million Acres)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres Planted</td>
<td>79.5</td>
<td>75.7</td>
<td>78.3</td>
</tr>
<tr>
<td>Acres Harvested</td>
<td>72.7</td>
<td>68.8</td>
<td>71.5</td>
</tr>
<tr>
<td>Bu./Harvested Acre</td>
<td>137.1</td>
<td>138.2</td>
<td>139.5</td>
</tr>
<tr>
<td>(Million Bushels)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>1718</td>
<td>1899</td>
<td>1471</td>
</tr>
<tr>
<td>Production</td>
<td>9968</td>
<td>9507</td>
<td>9974</td>
</tr>
<tr>
<td>Imports</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total Supply</td>
<td>11693</td>
<td>11416</td>
<td>11455</td>
</tr>
<tr>
<td>Use:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed and Residual</td>
<td>5890</td>
<td>5900</td>
<td>5910</td>
</tr>
<tr>
<td>Food, Seed, Ind.</td>
<td>1967</td>
<td>2045</td>
<td>2200</td>
</tr>
<tr>
<td>Total Domestic</td>
<td>7857</td>
<td>7895</td>
<td>8110</td>
</tr>
<tr>
<td>Exports</td>
<td>1937</td>
<td>1985</td>
<td>2075</td>
</tr>
<tr>
<td>Total Use</td>
<td>9794</td>
<td>9945</td>
<td>10185</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>1899</td>
<td>1471</td>
<td>1270</td>
</tr>
<tr>
<td>Ending Stocks, % of Use</td>
<td>19.4</td>
<td>14.8</td>
<td>12.5</td>
</tr>
<tr>
<td>Regular Loan Rate</td>
<td>$1.89</td>
<td>$1.89</td>
<td>$1.89</td>
</tr>
<tr>
<td>U.S. Farm Price, $/Bu.</td>
<td>$1.85</td>
<td>$2.00</td>
<td>$2.20</td>
</tr>
</tbody>
</table>

Source: USDA and Jim Hilker.
### TABLE 2
**SUPPLY/DEMAND BALANCE SHEET FOR WHEAT**

<table>
<thead>
<tr>
<th></th>
<th>Estimated 2000-01</th>
<th>Hilker 2001-02</th>
<th>Hilker 2002-03</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Million Acres)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres Planted</td>
<td>62.5</td>
<td>59.6</td>
<td>59.7</td>
</tr>
<tr>
<td>Acres Harvested</td>
<td>53.1</td>
<td>48.7</td>
<td>50.0</td>
</tr>
<tr>
<td>Bu./Harvested Acre</td>
<td>42.0</td>
<td>40.2</td>
<td>42.5</td>
</tr>
<tr>
<td><strong>(Million Bushels)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>950</td>
<td>876</td>
<td>671</td>
</tr>
<tr>
<td>Production</td>
<td>2232</td>
<td>1958</td>
<td>2125</td>
</tr>
<tr>
<td>Imports</td>
<td>90</td>
<td>95</td>
<td>94</td>
</tr>
<tr>
<td>Total Supply</td>
<td>3272</td>
<td>2929</td>
<td>2890</td>
</tr>
<tr>
<td><strong>Use:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>957</td>
<td>950</td>
<td>960</td>
</tr>
<tr>
<td>Seed</td>
<td>80</td>
<td>83</td>
<td>85</td>
</tr>
<tr>
<td>Feed and Residual</td>
<td>298</td>
<td>225</td>
<td>215</td>
</tr>
<tr>
<td>Total Domestic</td>
<td>1335</td>
<td>1258</td>
<td>1260</td>
</tr>
<tr>
<td>Exports</td>
<td>1061</td>
<td>1000</td>
<td>1050</td>
</tr>
<tr>
<td>Total Use</td>
<td>2396</td>
<td>2258</td>
<td>2310</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>876</td>
<td>671</td>
<td>580</td>
</tr>
<tr>
<td>Ending Stocks, % of Use</td>
<td>36.6</td>
<td>29.7</td>
<td>25.1</td>
</tr>
<tr>
<td><strong>Regular Loan Rate</strong></td>
<td>$2.58</td>
<td>$2.58</td>
<td>$2.58</td>
</tr>
<tr>
<td><strong>Season Average Farm Price</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. $/Bu.</td>
<td>$2.62</td>
<td>$2.85</td>
<td>$3.10</td>
</tr>
<tr>
<td>Michigan $/Bu.</td>
<td>2.10</td>
<td>2.25</td>
<td>2.70</td>
</tr>
</tbody>
</table>

Source: USDA and Jim Hilker.
### TABLE 3
SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS

<table>
<thead>
<tr>
<th></th>
<th>Estimated 2000-01</th>
<th>Hilker 2001-02</th>
<th>Hilker 2002-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Million Acres)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres Planted</td>
<td>74.3</td>
<td>74.1</td>
<td>74.7</td>
</tr>
<tr>
<td>Acres Harvested</td>
<td>72.4</td>
<td>73.0</td>
<td>73.5</td>
</tr>
<tr>
<td>Bu./Harvested Acre</td>
<td>38.1</td>
<td>39.6</td>
<td>39.5</td>
</tr>
<tr>
<td>(Million Bushels)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>290</td>
<td>248</td>
<td>285</td>
</tr>
<tr>
<td>Production</td>
<td>2758</td>
<td>2891</td>
<td>2903</td>
</tr>
<tr>
<td>Imports</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total Supply</td>
<td>3052</td>
<td>3143</td>
<td>3190</td>
</tr>
<tr>
<td>Use:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crushings</td>
<td>1641</td>
<td>1675</td>
<td>1690</td>
</tr>
<tr>
<td>Exports</td>
<td>998</td>
<td>1010</td>
<td>1020</td>
</tr>
<tr>
<td>Seed, Feed and Residuals</td>
<td>165</td>
<td>173</td>
<td>175</td>
</tr>
<tr>
<td>Total Use</td>
<td>2804</td>
<td>2858</td>
<td>2885</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>248</td>
<td>285</td>
<td>305</td>
</tr>
<tr>
<td>Ending Stocks, % of Use</td>
<td>8.8</td>
<td>10.0</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Regular Loan Rate:

- $5.26
- $5.26
- $5.26?

U.S. Farm Price, $/Bu.:

- $4.55
- $4.30
- $4.30

Source: USDA and Jim Hilker.
The Michigan Agricultural Statistics Service estimated the 2001 sugarbeet crop in the state at 3,220 thousand tons, about 5 percent lower than in 2000. As in 2000, harvested acreage lagged planted acreage more than normally as a PIK program was again in effect in order to limit production. The USDA’s World Agricultural Outlook Board estimated the national sugar output for 2001 at 7,925 thousand short tons, raw value, which is a reduction of 9 percent from 2000 and 12 percent from 1999. In combination with projected imports and utilization, this level of output should bring ending stocks for the 2001-2002 crop year down to about 11 to 12 percent of use compared with 21.4 percent at the end of the 2000-2001 crop year. This should approach targeted levels.

Beet sugar prices recovered from the lows reached in 2000, and in late 2001 and early 2002 were around 27 cents per pound, wholesale refined, at midwest markets. This level is about 20 percent higher than in the previous year. On the 2000 crop, payments to producers averaged $31-32 per ton with some funds retained by the Michigan Sugar Company for factory maintenance and other purposes. Because of higher beet sugar prices and lower energy costs, returns to sugarbeet growers should average somewhat higher on the 2001 crop than in the previous year.

The Michigan Sugarbeet Grower Cooperative, Inc. was formed to purchase the Michigan Sugar Co. from Texas-based Imperial Sugar Co. This purchase is expected to be completed in February 2002.
FARM MANAGEMENT IMPLICATIONS FOR GRAIN PRODUCERS
Gerry Schwab

Brief Review of 2001

In planning for 2002, it might be useful to review last year to ascertain what we learned. If we did not previously acknowledge it, we now know that zero yields can occur on some of the best soils in Michigan. Last year’s weather for some areas in Michigan had two planting seasons - early planting in April to very early May that was curtailed by rain; then late planting completed in late May to early June. The summer brought several weeks of little to no rain that extended past the pollination time for corn. Late planted corn yields suffered as did corn silage yields. The areas most severely hit by drought were in east-central Michigan where some acres of beans were not worthy of harvest; i.e. zero yield. According to data gathered by Michigan Agricultural Statistics Service (and can be found at their web site http://www.mda.state.mi.us/mass/index.html), average yields in Michigan for 2002 were corn @ 105 bu/acre; soybeans @ 30 bu/acre; and dry beans @ 600 pounds per harvested acre. With 85,000 acres that were planted to dry beans but not harvested, the yield per planted acre is much worse at 362 pounds per acre. Wheat may have been a relatively bright enterprise with yield averaging 64 bushels per acre.

The price chart for 2001 for many crop commodities does not present a pretty picture. To illustrate in words, the futures price at the Chicago Board of Trade for the December 2001 corn contract ranged from a high of $2.75/bu to a low of $2.02/bu. This high price came well before this corn was ever planted and the low price was reached in June 2001 followed by rally to $2.47 and then declining into fall harvest. Price movements in the previous year for the December 2000 corn presented even better pricing opportunities early that lasted a bit longer into the calendar year. Soybean prices in 2001 also pursued a downward trend throughout the second half of the year. There must be a lesson here, but what is it?

Planning for 2002

Most producers of corn, beans, and wheat are in the commodity business. The implication of being in the commodity business is that your product quality is no different in the market place from any other producer’s corn, beans, or wheat. The next piece of this business puzzle is that you compete and are rewarded on the margin gained between your price received and your cost of production. So your skills in decision-making to price your homogeneous commodity, i.e. at what level to price how much; and your skills in selecting and pricing inputs to obtain your yields are critical factors in determining your success in chasing profits. The global market place has created both opportunities and challenges. More acres planted in the southern hemisphere have resulted in increased supplies and downward pressure on prices. The demand or use must continue to increase or prices suffer. We each must ask ourselves what we can do to compete in this global market place.

So what have we learned from recent year’s experiences?
Provisions of the farm bill will be critical to our short-term decision-making. Since the passage of the Federal Agriculture and Improvement Reform (FAIR) Bill of 1996, soybean acreage planted has increased. In 2001, acres of soybeans planted both in the U.S. and in Michigan were almost as high as corn acres in these respective areas. Grower decisions have been strongly influenced by the support price of soybeans that is 2.8 times higher than for corn. The “new” farm bill is currently being debated. You might have the opportunity to update your base acres and crop yields. Farm production records will be important for documentation. Stay informed, participate in the discussion, and understand the ramifications for your farm and industry.

Low yields can occur on fertile soils that are farmed by good producers. For most if not all farms, there is a need for implementation of some risk management. One tool is crop insurance. You must make your decision by March 15 for spring planted crops. Contact vendors who can provide the details on various alternatives as multi-peril crop insurance (MPCI), crop revenue coverage (CRC), and group risk plan (GRP).

Costs of production are important to know to ascertain competitiveness of each individual, unique farm. If costs are so high to prohibit the opportunity to earn a profit, the costs must be lowered or the resources must be employed in another enterprise or business. What are your alternatives? Costs per unit produced can be lowered by altering your culture system to change your input mix, comparison shopping for inputs, and/or by increasing yields. Timeliness of planting seems to be critical for high yields. In the narrow window of optimal time for spring planting in these more northern latitudes, have your priorities in order. Some input costs will be lower in 2002. The cost of money (interest rate) declined throughout 2001. The nitrogen shortage scare of 2001 with resultant higher prices appears to have been addressed by the industry. With at least these two important inputs declining in price, there is reason to have some optimism.

Develop a marketing plan - for 2002, for 2003! What percent of expected production might you forward price and at what price? Consider the pricing opportunities that are made available to you each day. What price do you need to cover your costs, your cash flow needs, and to reach your desired return on investment? Determine these price levels for your situation! Understand how the loan deficiency payment (LDP) might be included in your plan. Prepare a written plan! Making a commitment on paper may help in actually making the pricing decision if and when the opportunities occur.

Stay informed. A more informed decision-maker may not always have better results but the odds of such should be improved. The College of Agriculture and Natural Resources at Michigan State University has a mission that includes serving and promoting the food and agricultural system. Improving the knowledge base is part of that mission as we all drive on the information highway.
LIVESTOCK OUTLOOK
Jim Hilker

CATTLE

The annual USDA January 1 Cattle Inventory Report released February 1 showed continued slow liquidation in the U.S. Cattle sector. Total inventory of all cattle and calves was down 1% from January 1 2001 at 96.7 million head. The report was very close to expectations, the only mild surprise were the steers weighting over 500 pounds. This category was up 2% versus the expectation of near even.

Cow numbers were down nearly 1%, beef cows numbers being down .9%, slightly more than the .8% drop in dairy cows numbers. There were .5% fewer beef cow replacements and nearly as many dairy cow replacements retained as a year ago. This lack of expansion is despite three straight profitable years in the cow calf sub-sector. The losses in three of the four prior years must still be in the memory bank. One new data series was the number of beef cow replacement expected to calf this spring. This number was up 3%. However, when you add beef cow that have calved with beef cow replacements expected to calve, there are still .5% fewer cows to have calves this year. While beef cow expansion is expected next year, these numbers indicate that the returns to cow-calf producers should be good for at least the next three years.

The 2001 calf crop was down about 1% from both 1999 and 2000. Cattle-on-Feed January 1 were down 2%. Heifers over 500 pounds, other than those for replacements were down 1%. Steers over 500 pounds were up 2%. And calves under 500 pounds were down 2%. Along with other factors, all the above numbers suggest beef production in 2002 will be about 2.0% lower than in 2001. This should mean an average choice steer price in 2002 of about $76/cwt versus the $72.42/cwt average choice steer price in 2001. Feeder cattle prices should remain at or above year age levels.

First quarter beef production is expected to be up 3-4%. The increase is due to the decent feeding environment this year compared to last. Both daily gains and slaughter weights are up significantly. This would indicate that choice prices will average in the $69-71 range for the quarter versus the weather induced $79.11 averaged in the first quarter of 2001.

Second quarter beef production is expected to be off about 1%. The lower placements last fall will begin helping prices. Choice prices in the second quarter are expected to be in the $75-78 range versus the $75.13 averaged last year. Third quarter beef production is expected to be down 2%, but it is a little unclear when these few extra steers will arrive. Third quarter choice steer prices are expected to respond to the lower production by averaging in the upper $70s for the quarter versus this past summer’s average choice steer price of $70.33. We may even see some $80 cattle.

The fourth quarter is a question mark with beef production expected to be down 5-10%. How many heifers will have been held back? This past year we had a lot of heifers fed out and huge first and second quarter placements. Will cow slaughter be down? Will demand keep
growing? Choice steer prices will be up significantly from this past year’s $65.09. But will they average $75 or $85 or somewhere in between? The futures markets are saying $73, the USDA projected $79-$85 in their January estimate. I will project $78-$82.

Will these high cattle prices mean good returns for feedlot? Calves prices are being bid up to reflect the higher projected steer prices and feed prices are assumed to be staying low.

HOGS

Barrow and gilt prices averaged $45.81/cwt. for the calendar year 2001. However, the good average price was due to very good second and third quarter prices versus consistently good prices through the year. Prices are expected to average $43-$46 for the calendar year 2002 as production is expected to be nearly the same level for the year as a whole. The assumption is that pork demand will at least remain at present levels or increase slightly. Pork producers should have positive returns from at least the middle of the first quarter of 2002 through the third quarter of 2002, and may even do better as long as feed prices stay near or below projections.

First quarter pork production is expected to be down a little less than 1% as last summer’s farrowings and pig crop were down nearly 2%. Weights are expected to be up enough to help make up the difference along with some pigs born in the early fall. Prices are expected to average in the $41-$43 range versus the $42.83 averaged in the first quarter of 2001.

Pork production in the second quarter is expected to be about the same as a year ago. Sept-Nov farrowings were about the same size as last year, but the pig crop was a bit smaller. Heavier weights will make up the difference. Barrow and gilt prices are expected to average in the $47-$51 range versus $52.05 in 2001.

Farrowing intentions for the Dec-Feb period were expected to be up 3% according to the December 2001 Hogs and Pigs Report. This is where the third quarter pork production will come from, but it seems like a huge increase given that December 1 breeding numbers were down 1%. This likely will lead to average prices in the $44-$48 range versus the $51.05 price averaged for the third quarter of 2001.

Fourth quarter production will come from the spring pig crop. The last USDA Hogs and Pigs Report indicated producers plan to farrow 1% more sows in the Mar-May period than the previous year. But we also know that hog prices this past fall, averaging $37.30, were not at expansionary levels. The USDA, in their January report, projected fall 2002 pork production will be down slightly and prices will average in the $38-$42 arena. I suspect we will average on the lower side of that range.
ISSUES AFFECTING LIVESTOCK PRODUCERS
Gerry Schwab and Laura Cheney

As we close out our farm records and evaluate our farm’s (and personal) performance for the past year of 2001, it might be useful to think about all the issues and changes that ought to be in our think tank as we develop plans for 2002 and beyond. As we identify those changes that occur beyond the farm gate, think about the linkage back to your farm and what you might do to better position your farm business to be successful in the future.

Some changes and ongoing events that come to mind are:

1. Consumer driven market – branded products that provide nutritional value, consistent quality, convenience in a package of services, and food safety

All livestock and meat producers need to be continually aware of the need to provide the products that the consumer is willing to buy and at what price. As we become ever closer to identity preservation and the ability to trace back to the original farm source of supply, it is in our own best interests and in the best interests of the meat industry to have farm production practices that safeguard a quality product. Participation at the highest level in such programs as Pork Quality Assurance have become a standard to enable access to the market chain.

2. Continued Consolidation and Mergers in the food supply chain

The Michigan livestock industry continues to be impacted by consolidation in the meat packing industry. There becomes a general issue of market access for the independent producer. Marketing contracts with packers have become more common both to guarantee access and as a risk management tool. It is apparent that it is getting more and more difficult to continue to do business as we have in the past. Change is rampant and we must be nimble enough to adapt. One current illustration in the pork industry is the on-going discussion for development of the Great Lakes Pork Cooperative. Finding partners and alliances in this industry may become a necessity even for the fiercely independent producer.

3. 911

“911” now has an additional meaning given the events of Sept 11, 2001. Terrorist activity has reached our shores. The globalization of the economy and connection linkages around the world have shrunk our concept of how big the world is. We are all connected. At the farm, our immediate concern might deal with bio-security, controlled access to livestock facilities, and checking our shoes as we return from a visit overseas. Farm insurance policies ought to be reviewed as one tool of risk management. In addition to the more familiar Federal Crop Insurance Program, watch how the livestock price insurance pilot project, expected to be offered to Iowa producers this year, evolves.
4. The “new” farm bill

The Federal Agriculture Improvement and Reform Act of 1996 (FAIR farm bill) expires in 2002. One provision being discussed for the new farm bill is a ban on packer ownership of livestock for more than 14 days prior to slaughter (Johnson Amendment). Presumably this provision is addressing a perceived problem regarding vertical integration and the control that a meat packer might exert over the supply and thereby limit market access for independent producers. Be informed and involved in this discussion through your own connection to your legislative representatives or through your production livestock association. Current efforts, led by the American Meat Institute, focus on replacing this amendment with an economic impact study.

5. Environment

Stewardship of our natural resources has been a source of pride for many farmers. However as our neighborhoods become increasingly exposed to those without a farm identity, it becomes an increasingly important responsibility to care for local air and water quality. Having in place a comprehensive nutrient management plan might be one step in managing manure and utilizing it as a resource in your cropping program. Being cognizant of the provisions in the “Generally Accepted Agricultural Practices” would be helpful in complying with the spirit of the Michigan Right to Farm law (further information can be found at http://www.mda.state.mi.us/right2farm/farm.htm or http://www.maeap.org/). In addition, state officials continue to work with the EPA to ensure environmental protection. A press release covering the state’s plans for livestock production facilities can be found at http://www.deq.state.mi.us/pr/2002releases/020114.htm.

6. The Information Highway

The advent of the computer age with web sites, satellites, broad-band and a host of information providers should enable all of us to be increasingly informed about markets and events that impact the livestock industry. Farm records can now be readily accessible for analysis to determine own financial performance. Better information should lead to more informed decisions, if not always better results. Get connected and be informed.

The year 2001 has been particularly challenging for the cattle feeding industry. The downward trend in finished cattle prices that occurred throughout the year 2001 resulted in significant losses for most feedlots. Feeder cattle that were brought in on a large negative margin between purchase price and selling price simply had too much loss that could not be made up in the positive margin on gain produced. The price outlook for this year should be improved somewhat with the total number of U.S. cattle and calves continuing to decline. If feed costs are controlled close to the present levels, finished cattle prices post some modest recovery, and placements are not bid in too high; the profit margin should improve. Cost of feed and of feeder cattle can be impacted by your decisions. Conducting a break-even analysis before completing purchase of feeder cattle should be helpful.

Pork producers should have continued in 2001 their economic recovery from the price and profit debacle of 1998. Hog price projections for 2002 combined with slight projected increases
in feed prices should enable a modest profit margin. For those who produce hogs that meet and exceed the carcass quality specifications and can thus benefit from a value-based pricing grid, the chances for a profitable year should be enhanced.

Let us all improve and work towards having a profitable Michigan livestock industry.
DAIRY OUTLOOK
Larry Hamm and Sherrill Nott

In general, many in the Michigan dairy industry had a better than expected year in 2001. The prospects for 2002, while not quite as rosy as last year, are somewhat positive. Milk prices are expected to fall but not crash while costs are expected to hold steady. Lower profit levels might be augmented by government payments if a new Farm Bill is passed.

Unexpectedly Good Milk Price Year

The old folk saying that “where there is a will, there is a way!” did not hold last year in the dairy industry. Demand, again driven by cheese consumption was once again strong. Milk prices gained strength through the year to finish at their second highest level in history. The Michigan all-milk price (milk price with premiums but before deductions) will be around $15.25 per hundredweight (cwt.). The result was milk-feed price ratios that by historic standards would have produced a strong “will” to expand milk production not only in Michigan but nationwide. Areas of Michigan were especially constrained by weather related forage and feed problems. Feed problems were evident elsewhere. However, the real constraint was that there were not enough dairy replacement animals available to meet the demand. Even with much higher prices for heifers and replacement cows, the market could not provide the “way” to increase milk production. Michigan attempted to do its part to increase production. While the U.S. production dropped 1.2 percent in 2001 over 2000, Michigan’s milk production was steady at 5.72 billion pounds. Unfortunately, production increases in the West prevented Michigan from regaining ground in its share of the national market although Michigan’s producers out-paced those in the other top ten Midwest dairy states.

Production Increases Will Temper 2002 Prices

The U.S. milk production started to rebound in November 2001 and build momentum in December. Production per cow is starting to improve and is expected to increase by 3 percent in 2002. The long term trend productivity increase is around 2 percent. Milk cow numbers are starting to build but slowly. The replacement market is again expected to remain tight because of higher industrywide culling rates. Replacements from herd dispersals are not expected to be much greater than 2001 when high replacement values induced many smaller operations to exit the industry. Forage quality problems are likely to continue through mid-year. The result, even though the milk-feed price ratio will point to continued expansion, will be for production to only increase 2-3 percent for 2002.

This means that the price prospects hang on the demand for dairy products. Over the past few years commercial disappearance has increased around 3 percent. The historic trend has been around 1.5 to 2.0 percent. Given the recession and yet uncertain timing of the recovery, dairy demand is not likely to equal the predicted modest increased production. This means that there will be milk price level erosion in 2002. For 2002, the all-milk price in Michigan will likely average between $12.90 to $13.50. This is $2.00 per cwt lower than 2001 but higher than 2000.
As has been the case over the past decade, dairy supply and demand are delicately balanced on a knife’s edge. A small increase in milk production or a reduction in demand will cause a sizeable drop in the milk price forecast.

**Little Help Internationally**

In 2001, world milk production was affected by lower U.S. production, foot and mouth disease in Europe, dairy deregulation in Australia, and weather problems elsewhere. World prices for dairy products increased as the U.S. markets pulled in foreign dairy production via butter and milk protein concentrates (MPCs) because of changes made to the U.S. import restrictions during the last GATT round. U.S. milk prices are now effectively capped by the current trade rules and Europe’s willingness to continue export subsidies. Because the world nonfat dry milk (NDM) powder got real close to the U.S. price-supported price, the Secretary of Agriculture reduced the price support on powder and raised it on butter; i.e., changed the tilt. The result was lower Class IV prices in the U.S. The world market prices dropped dramatically late in 2001. Consequently, there will not likely be any non-DEIP (Dairy Export Incentive Program) exports. Another “tilt” change in 2002 cannot likely be justified that it is necessary to move U.S. powder to international markets. DEIP exports will likely be very helpful. In addition, U.S. dairy industry efforts to develop value-added markets will likely continue to improve long-term market prospects. However, these will only help on the margin for prices in 2002.

**Policy Uncertainty**

There currently is no new Farm Bill. The dairy price support program expires May 31, 2002. Without a Farm Bill, this uncertainty overhangs the market. Currently, the USDA is purchasing large quantities on NDM. Changing the “tilt” again would cut the USDA’s program costs but would also likely lower the Class IV price in the Federal Milk Marketing Orders (FMMOs). The FMMOs use the “higher of” Class III or Class IV price to set FMMO prices. With the exception of a few months, the Class IV price has been higher than Class III thus helping Michigan pay prices. Another “tilt” would likely move Class III and Class IV closer together making cheese milk (Class III) higher in price. The price implications could be significant because of conditions in the cheese market. Several very large cheese plants (6 million pounds a day) are set to open in California this year. California order prices for cheese milk (Class 4b) are lower than Class III. A large increase in Western U.S. cheese production will likely lower wholesale cheese prices nationally. With a lower Class IV because of another USDA “tilt”, the higher of calculation will be from a lower average price. The price forecast above would likely be too optimistic.

Since the FMMO reform in 2002 and the use of the “higher off”, producers from other regions outside Michigan’s Mideast Order have been “attaching” themselves to Order N. 33. In November 2001 there were almost as many Wisconsin producers on Order 33 than were Michigan producers. The results is the benefits of the higher Class I and Class II utilizations on Order 33 are being deluded. The Producer Price Differential in Order 33 was $.92 lower in 2001.
than 2000. A FMMO hearing has been held to attempt to deal with this “pool riding.” Depending on the USDA ruling, Michigan pay prices could receive a boost above the price forecast above.

The Senate version of the Farm Bill contains provisions for direct payments to producers. The payments would be counter-cyclical (paid when prices fall and eliminated when prices increase) and perhaps regionalized. There would be payment caps at about 400 cows. The dairy provision are once again some of the most contentious in the Farm Bill debate.

**Cost Changes May Be Neutral**

The 2002 outlook for petroleum and associated products is for lower prices than they were in early 2001. Interest rates may bottom out and start to increase towards the end of the year. Labor costs will continue to be under pressure to increase despite increasing state unemployment. For the first time in several years, new farm machinery prices did not change much during 2001, and may stay steady during 2002.

In the following, input 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. The index increased to 122 by December, 2000, and was still at that level by December, 2001. The index for family living expenses, based on the Consumer Price Index, was 129 in December 2000 and was 132 a year later. With personal costs moving upward, the possible erosion of prices received is a concern to anyone hoping to maintain size and profit levels.

The price of crude oil and associated products are lower at the current time than they were a year ago. Index numbers for farm prices in December, 2000 and December, 2001 were: Diesel, 146, 99; Gasoline, 112, 76; LP Gas, 162, 91; all Fuels, 139, 91. The all fuels index is 65 percent of what it was a year earlier. How long into 2002 fuel prices will remain at these lower levels is hard to predict. If the recession continues, they won’t recover as quickly as they might if the world’s economies start to recover. There is also the question of how soon the Organization of Petroleum Exporting Countries (OPEC) can reassert their international pricing goals.

Index numbers for fertilizer prices in December, 2000 and December, 2001 were: Nitrogen, 137, 101; Potash and Phosphate, 110, 113; Mixed Fertilizer, 107, 107, and All Fertilizers, 120, 105. These prices, especially for nitrogen, will be influenced by natural gas prices within the United States as well as the international price of crude oil. Liquid nitrogen fertilizer is a known target for those trying to steal inputs for illicit drug making. Expect increased costs of preventing thefts in Michigan to eat into the savings from reduced nitrogen prices.

The magnitude of the potential impacts of energy cost changes should be considered. In 2000, the average total cash expenses for 150 Michigan dairy farms was $547,516; they averaged to have 203 cows and cropped 532 acres. The fertilizer costs were 3.2 percent of the total cash expenses. Fuel and oil costs were 2.8 percent. Purchased feed costs were 26.3 percent. (See Staff Paper 2001-29 by Nott, on the internet at: www.msu.edu/user/nott/staff_paper_2001_29.pdf)
Index numbers for feed prices in December, 2000 and December, 2001 were: Feed Grains, 86, 84; Hay/Forages, 111, 120; Concentrates, 121, 109; Complete Feeds, 108, 109; Supplements, 123, 123; and All Feeds, 108, 108. 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 or concentrates. Purchased grains continued to be a bargain for dairy farms in 2001. They will continue to be through the first part of 2002. The outlook after mid-2002 depends on the weather throughout the world and U.S. policies towards feed grain producers. The best managers will monitor feed prices and be ready to lock in future feed grain prices if conditions favor price increases.

The previous indexes are for the U.S. in total. In Michigan, many farms suffered forage and grain yield losses due to adverse weather during 2001. Dairy farm feed inventories going into 2002 were lower and will have to be rebuilt from the next harvest. As this is written in early 2002, hay prices in many parts of the state are getting higher, and will stay that way until the size of 2002's harvest becomes evident. This further exacerbates the different cost structuring between operations that raise the majority of their feed and those that purchase feed.

Michigan continues with the unique situation of dealing with tuberculosis (TB) in its deer and livestock herds. All dairy herds have now undergone at least one whole herd TB test. It is likely that annual testing will be continued. By now, everyone in the industry should know what inconveniences and costs are associated with the testing. By the dairy industry pulling together to complete the task, continued access to milk and slaughter animal markets have been maintained. However, these special costs will continue for the next several years until the whole state is declared free of TB. Those hoping to sell cattle for anything other than slaughter will continue to face extra testing costs and continuing restricted markets for their animals.

Summary

Lower milk prices with level costs should lead to profitable margins for many dairy operations. Weather conditions impacts on forages will again be critical for determining whether individual producers or local regions are able to generate profitable margins. The passage of a Farm Bill with counter-cyclical Market Loss Assistance Payments for dairy operations would help many producers (those under 400 cows) manage the consequences of some possibly volatile markets caused by government policy decision on FMMOs and the price support program. The number of overhanging issues in the dairy markets pretty well assures that there will be surprises and volatility in the markets in 2002.
FRUIT OUTLOOK
Donald Ricks

Michigan is the nation’s predominant state in the production of tart cherries with 75-80% of the U.S. tart cherry crop usually produced here. Therefore Michigan’s acreage and productive capacity has a major impact on the national industry’s supplies of this crop. A new orchard survey, which has recently been published by the Michigan Agricultural Statistics Service, shows that tart cherry acreage in Michigan is continuing a downward trend that has been occurring since the early 1990s. Bearing acreage of tart cherries in Michigan has declined 6% from that shown in the previous orchard survey which was published in 1998, and down 20% from the state’s existing bearing acres in the early 1990s. Nonbearing acres remain at unusually low levels.

Tart cherry acreages in non-Michigan states have also been trending downward. This has resulted in a significant downward trend in the overall tart cherry producing acreage in the US as a whole. The decreasing trend for bearing tart cherry acreage in both Michigan and other states is expected to continue in future years. This declining acreage trend, in itself, is expected to have an impact of a downward trend on the industry’s productive capacity and average supplies in future years. This expected trend for somewhat smaller supplies is also expected to have an impact of a rising trend for grower prices during future years.

In addition to the industry’s bearing acreage, trends in yields per acre have had an important impact on industry supplies during recent years. Average yields per acre in Michigan have trended upward significantly during the past 20 years. Because of this increasing trend in average yields per acre, industry supplies have remained high, and often in surplus, during recent years despite the downward trend in bearing acres.

A key question for the future is: Will the trend toward increasing yields per acre persist and be sufficient in future years to continue to balance to a substantial degree the decreasing trend in the industry’s bearing acreage? Although the answer to that question is not completely clear, it seems likely that the trend in average yields per acre may well show smaller increases or a tendency to plateau off during the next five years. This is, in part, because of the substantial aging of many tart cherry orchards in Michigan and in other states with an unusually high percentage of these orchards now or soon approaching the end of their normal economic life span.

Michigan’s apple acreage has shown a significant decrease during last few years as documented by the recently published Michigan orchard survey. This latest survey showed an 18% decrease in Michigan’s apple acreage. This decrease in acreage has been mainly in response to low returns to growers during the last few years. Data on the age distribution of Michigan apple orchards show that much of the recent reduction in acreage has been in the older age orchards. This is likely to have a positive impact on average quality of apple production and efficiency in terms of yields per acre and costs per bushel.

The latest orchard survey shows that Red Delicious remains as the most widely planted variety of apples in Michigan. Other top-10 apple varieties in Michigan include (2) Golden
Delicious, (3) Jonathan, (4) Ida Red, (5) Rome, (6) McIntosh, (7) Empire, (8) Spy, (9) Gala and (10) Jonagold. Some of the newer varieties which have shown expanding acreages in Michigan including Gala, which has had the largest increase, along with some expansion in Jonagold and Fuji. Varieties which have shown relatively stable acreage in recent years in Michigan include Golden Delicious, Empire and Ida Red. Michigan varieties which have shown some of the larger recent decreases in acreage include Jonathan, Red Delicious, McIntosh, Rome, Winesap and Paula Red.

The sweet cherry acreage in Michigan has shown a relatively stable trend since the early 1990s. While the acreage of bearing sweet cherries as remained fairly stable, there has been somewhat of an increase in the acreage of Michigan’s younger age sweet cherries as shown by the latest orchard survey.

With Michigan’s emphasis on brining market outlets for much of its sweet cherry production, the top three varieties of sweet cherries in Michigan are all light varieties. These include Golds, Emperor Francis and Napoleon. There have been increasing trends of acreage for Golds and Emperor Francis, along with a gradually declining trend of the Napoleon acreage.

For peaches, the latest orchard survey shows an increasing trend in the acreage of cling peaches. Most of these have been planted in the Oceana-Mason region. In contrast to the increasing trend for the cling peach acreage, there has been a decrease in the acreage of freestone peaches in Michigan with an 18% decrease in freestone peach acreage since the previous orchard survey in 1998. Thus a combination of the increasing trend for cling peaches along with the decline in freestone acreage has resulted in a relatively stable overall peach acreage for the state with a slight decrease during the last few years.
MICHIGAN FARM INCOME OUTLOOK FOR 2002
Jake Ferris

As often is the case, the Michigan farm income picture for 2001 was a mixed one. A severe drought in the summer following earlier frost and freeze damage cut into production and market receipts from field crops and fruit. Calendar year losses amounted to about $150 million in farm income relative to forecasts at the beginning of the year. This lowered level of production will also negatively affect receipts in calendar 2002 from marketings of stored crops.

Most severely hurt were dry bean producers who managed only a state average of 6 cwt. per acre, historically low (since 1955) and about one third of normal. While Michigan produces enough of the U.S. total dry bean crop to affect prices, and also yields were off elsewhere, price increases on the 2001 crop have fallen far short of offsetting production losses. On other crops, yields on grapes were only 35 to 40 percent of recent averages. Soybean yields were about 75 percent of trends with corn and hay yields off by 8 to 10 percent. On the other hand, yields on sugar beets, wheat and oats were above average.

As a result, all counties in the state except one (Keewenaw) have been designated “Secretarial Natural Disaster Areas”, making farmers in those counties eligible for low interest (3.75%) loans. Whether direct government disaster payments will be forthcoming is not clear at this time.

Offsetting lowered returns on crops in 2001 were higher cash receipts from marketings of livestock. Due almost entirely to higher than expected milk prices, returns to livestock producers were about $150 million greater than had been forecast in early 2001. The average farm price of milk was about $15.20 per cwt. in calendar 2001, exceeded only by $15.30 per cwt. in 1998.

Cash Receipts from Marketings of Livestock

Some gain was realized in each classification with the most notable on dairy and turkeys. As can be seen in Table 1, cash receipts from marketing of livestock is estimated at $1,512 million for 2001, up $177 million, or 13 percent, from 2000.

While milk production is likely to increase by a percent or two in 2002, prices are likely to be significantly lower, resulting in a reduction in cash receipts. Little change is anticipated in cattle gross income. Expansion in hog production should result in higher cash receipts. Poultry receipts should remain close to the levels for 2001.

Cash Receipts from Marketings of Crops

Total cash receipts from marketing of crops in calendar year 2001 was estimated at $1,976 million, down $164 million, or 8 percent, from 2000 (Table 1). The decline is attributed mostly to corn, soybeans and dry beans. Reductions can also be noted on potatoes, hay and fruit. On other crops, changes were minor with a significant increase on wheat.
With normal weather, receipts from crop marketings should recover in calendar 2002, even considering reduced sales of 2001 crops stored into 2002. Major gains should be registered in corn, soybeans, dry beans and fruit. Also, higher prices on 2002 crops should contribute to the market returns from corn, hay, soybeans and wheat. Data for 2001 on the receipts from the greenhouse/nursery sector are not available. The slowing of the economy might indicate little expansion in sales for this industry. However, an increase in new housing starts has been encouraging.

**Total and Net Cash Receipts from Marketings and Other Sources**

As shown in Table 1, cash receipts from farm marketings in Michigan totaled an estimated $3,480 million in 2001, about the same as in 2000 as increased livestock sales offset faltering crop sales. Adding government payments, income from farm related sources and imputed rental value of farm dwelling (included because cash expenses relate to the household), total cash income plus the dwelling rental value amounted to $4,345 million in 2001 (Table 2). This is about one percent higher than in 2000. Direct government payments amounted to an estimated $407 million, a record high and $26 million above the level of 2000.

Government payments were about the same on most categories except that Production Flexibility Contract payments dropped from $88 million in 2000 to about $80 million in 2001 (depending on how many farmers took advance payments in December on the 2002 program). Also, $34 million was allocated to sugarbeet growers in 2001 for their participation in a new PIK program on the 2000 crop for diverting planted acres from harvest. Loan Deficiency Payments (LDPs) for calendar year 2001 were about $113 million and the Market Loss Assistance and Oilseed Program payments were about $91 million. Other payments were $56 million for other emergency programs, $16 million for the Conservation Reserve Program and $19 million for other programs.

Several unknowns hamper forecasting direct government payments for 2002. For one, Congress was still debating a new farm program at this writing. Last summer when the House Agriculture Committee reported their proposal, the first year of a 10 year program was to begin in 2002, replacing the last year of the existing legislation. A similar starting year was incorporated in the Senate version later. Apparently, the Production Flexibility Contract payment program will be retained as advance payments already have been allocated. Recalling that the 1996 farm bill was not enacted until the spring of the first year of the program, new legislation for 2002 is still possible — but much less probable. Questions may be raised whether Congress will provide emergency assistance to grain and soybean producers as in recent years. Another uncertainty is whether Michigan farmers will receive federal disaster payments on the 2001 crops.

Assumptions in the projected government payments for 2002 in Table 2 are that the 1996 farm legislation will remain on the 2002 crops and that payments under the Market Loss Assistance and Oilseed programs will be forthcoming. Federal disaster payments to Michigan farmers on the 2001 crop losses are not included in the projection of $386 million of government payments in 2002.
Higher energy costs in 2001 contributed to the increase in cash expenses from $3,334 million in 2000 to an estimated $3,450 million in 2001. Easing of energy costs and lower interest rates should help hold cash expenses in 2002 to about the same level as in 2001. Net cash income which slid from $970 million in 2000 to $895 million in 2001 should recover to about $1,010 million in 2002, a 13 percent increase.

In review of Table 2, one will notice the increased importance of government payments in the Michigan farm income scene. The same is true nationally. In the year 2001, the $407 million in government payments represented nearly 10 percent of the gross income and 45 percent of the net cash income. Because the net cash income does not allow for depreciation, net farm income in 2001 was closer to $300 million. This means that government payments exceeded net farm income.
Table 1. Cash Receipts from Farm Marketings in Michigan, Calendar Years 2000 Actual, 2001 Estimated, and 2002 Forecast*

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>2000 Mil $</th>
<th>2001 Mil $</th>
<th>2002 Mil $</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Livestock</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy</td>
<td>729</td>
<td>871</td>
<td>811</td>
</tr>
<tr>
<td>Cattle and calves</td>
<td>257</td>
<td>266</td>
<td>263</td>
</tr>
<tr>
<td>Hogs</td>
<td>200</td>
<td>202</td>
<td>216</td>
</tr>
<tr>
<td>Eggs</td>
<td>57</td>
<td>59</td>
<td>57</td>
</tr>
<tr>
<td>Turkeys</td>
<td>40</td>
<td>63</td>
<td>66</td>
</tr>
<tr>
<td>Other</td>
<td>51</td>
<td>51</td>
<td>51</td>
</tr>
<tr>
<td><strong>Total Livestock</strong></td>
<td>1,335</td>
<td>1,512</td>
<td>1,464</td>
</tr>
<tr>
<td><strong>Field Crops, Vegetables and Other</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td>341</td>
<td>288</td>
<td>393</td>
</tr>
<tr>
<td>Soybeans</td>
<td>354</td>
<td>270</td>
<td>306</td>
</tr>
<tr>
<td>Wheat</td>
<td>76</td>
<td>88</td>
<td>85</td>
</tr>
<tr>
<td>Dry Beans</td>
<td>67</td>
<td>39</td>
<td>62</td>
</tr>
<tr>
<td>Sugarbeets</td>
<td>112</td>
<td>110</td>
<td>117</td>
</tr>
<tr>
<td>Potatoes</td>
<td>106</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>Hay</td>
<td>32</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>Vegetables</td>
<td>256</td>
<td>260</td>
<td>248</td>
</tr>
<tr>
<td>Other</td>
<td>69</td>
<td>70</td>
<td>71</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,413</td>
<td>1,255</td>
<td>1,413</td>
</tr>
<tr>
<td><strong>Fruit</strong></td>
<td>236</td>
<td>226</td>
<td>247</td>
</tr>
<tr>
<td><strong>Greenhouse/Nursery</strong></td>
<td>491</td>
<td>495</td>
<td>500</td>
</tr>
<tr>
<td><strong>Total Crops</strong></td>
<td>2,140</td>
<td>1,976</td>
<td>2,160</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>3,475</td>
<td>3,488</td>
<td>3,624</td>
</tr>
</tbody>
</table>

* Data for 2000 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, 1996-2000 Actual, 2001 Estimated, and 2002 Forecast*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Million $</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gross Cash Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm Marketings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crops</td>
<td>2,151</td>
<td>2,259</td>
<td>2,183</td>
<td>2,139</td>
<td>2,140</td>
<td>1,976</td>
<td>2,160</td>
</tr>
<tr>
<td>Livestock</td>
<td>1,466</td>
<td>1,365</td>
<td>1,320</td>
<td>1,328</td>
<td>1,335</td>
<td>1,512</td>
<td>1,464</td>
</tr>
<tr>
<td>Government Payments</td>
<td>110</td>
<td>121</td>
<td>211</td>
<td>401</td>
<td>381</td>
<td>407</td>
<td>386</td>
</tr>
<tr>
<td>Farm Related Income</td>
<td>127</td>
<td>141</td>
<td>148</td>
<td>146</td>
<td>133</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>Dwelling Rental Value</td>
<td>269</td>
<td>294</td>
<td>289</td>
<td>343</td>
<td>315</td>
<td>315</td>
<td>315</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4,123</td>
<td>4,180</td>
<td>4,151</td>
<td>4,357</td>
<td>4,304</td>
<td>4,345</td>
<td>4,460</td>
</tr>
<tr>
<td>Cash Expenses</td>
<td>3,046</td>
<td>3,324</td>
<td>3,265</td>
<td>3,209</td>
<td>3,334</td>
<td>3,450</td>
<td>3,450</td>
</tr>
<tr>
<td><strong>Net Cash Income</strong></td>
<td>1,077</td>
<td>856</td>
<td>886</td>
<td>1,148</td>
<td>970</td>
<td>895</td>
<td>1,010</td>
</tr>
</tbody>
</table>

* Data for 1996 to 2000 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.