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Staff Paper

2004 Annual Agricultural Outlook

Coordinated by Jim Hilker

Staff Paper No. 2004-04

February 2004



Department of Agricultural Economics
MICHIGAN STATE UNIVERSITY
East Lansing, Michigan 48824

MSU is an Affirmative Action/Equal Opportunity Institution

2004 ANNUAL AGRICULTURAL OUTLOOK

**Coordinated by
Jim Hilker**

hilker@msu.edu

February 2004

39 pages

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AN ECONOMIC OVERVIEW

Les Manderscheid and Bob Myers

The United States economy performed well in 2003. Output of goods and services increased by over 3 percent for the year with a very strong expansion in the third quarter. Inflation and interest rates were low and the unemployment rate fell during the year. The stock market experienced a dramatic increase after three years of decline. However, wage and salary employment remained below the level of late 2001 or early 2002 and the value of the dollar fell substantially during the year, putting upward pressure on the prices of imports. Economic expansion, low inflation and a falling unemployment rate are forecast to continue in 2004.

The Michigan economy underperformed the national economy in 2003. The unemployment rate in Michigan in December 2003 was 7.2 percent while the national figure was 5.7 percent. Wage and salary employment in Michigan was two percent below the late 2001 figure while the national figure showed a decline of less than one percent. This has been a major factor in Michigan's tax revenue shortfalls and budget problems.

A comparison of wage and salary employment by sector between Michigan and the Nation as a whole may be instructive. Setting the late 2001 levels at 100 for both the U.S. and Michigan, then by the end of the third quarter of 2003 the manufacturing sector in both Michigan and the U.S. had dropped to 92.2. This indicates a similar decline in percentage terms but manufacturing jobs are a larger percentage of the work force in Michigan, which explains part of our relatively poor performance. In the Professional and Business Services sector Michigan had dropped to 98.2 and the Nation to only 99.6 by the end of the third quarter of 2003. In the Leisure and Hospitality sector the U.S. rose to 100.7 while Michigan dropped to 99. The Government sector index for Michigan dropped to 96.5 while the Nation as a whole grew to 100.3. Other Private sector jobs grew to 100.3 for Michigan and 100.1 for the U.S. economy. In summary, the Michigan shortfall relative to the Nation occurred in Government, Professional and Business Services, and the Leisure and Hospitality sectors.

The loss of manufacturing jobs has attracted wide media attention. States suffering large losses include California, Ohio and Michigan. Many fail to notice that this trend started prior to the most recent recession. A study by economists at Alliance Capital Management reviewed loss of manufacturing jobs from 1995 to 2002. Their study showed that 20 large economies lost over 11 percent of their manufacturing jobs. The United States lost exactly 11 percent, Japan lost 16 percent, Brazil lost 20 percent and, surprisingly, China lost 15 percent. The largest increase was in Spain at 24.6 percent.

Technology has been a major factor in increasing labor productivity. Robots can do repeated tasks with only a small labor force to assure that a defective robot is quickly repaired or replaced. Even service jobs are affected. When did you last ride an elevator with a human operator? In other words, how many elevator operators were displaced by technology? How many bank tellers have been displaced by automatic teller machines?

Closer to home, what has happened to the number of jobs on the farm? Machinery, chemicals, better seeds, and better feed conversion ratios allow farmers to feed a larger and larger population with a smaller and smaller farm work force.

What is the lesson to be learned? Human capital is the key. Highly educated workers will get the jobs and

earn a good income. The skills required for repetitive manual labor are minimal but managing a modern farm, store or factory requires highly developed analytical, managerial and communication skills. The same is true for many service jobs that are associated with high incomes. Examples include doctors, engineers, accountants and computer programmers.

The outlook for the Michigan economy in 2004 is heavily dependent on national economic growth. Forecasts of a continuing national expansion bode well for Michigan. But it is important that we see accelerating job growth, both in Michigan and elsewhere, if we are to grow our way out of our budget problems. For Michigan to grow more rapidly than the Nation, we will need a combination of a skilled work force and an economic climate conducive to investments in new ventures and expansion of existing firms.

LOW INTEREST RATES CONTINUE FOR NOW

Steve Hanson and Bob Myers

As the general economy continues to improve, interest rates currently remain at historically low levels. Table 1 shows the September 2003 rates for operating, feeder cattle, and real estate loans from commercial banks in the Seventh Federal Reserve District (Illinois, Indiana, Iowa, Michigan, and Wisconsin). The average interest rate charged on operating loans dropped 0.8% from a year ago to 6.41%, and the average real estate rate fell to 6.12%, down from 6.84% in the previous year. No results are 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 suggest a leveling off in short term rates. Table 2 shows current rates for select loan products where the range in rates is based on the credit quality of the loan. Operating loans are currently available at fixed rates ranging from 5.05% to 6.55%, which is essentially the same as the corresponding rates for the same period a year ago. However, 30-year fixed rate loans for farm real estate increased slightly from the previous year and now range from 8% to 9.25%.

Interest rates for the general economy are shown in Table 3. Short term rates fell slightly last year as the Federal Reserve continued to use low interest rates to stimulate the economy. The federal funds rate, which is the interest rate the Federal Reserve Bank charges member banks to borrow funds, dropped from 1.23% to 0.99%. The prime rate, which is the loan rate that banks charge to their best customers, followed the federal funds rate dropping from 4.25% to 4%. Both the federal funds rate and prime rate are short-term borrowing rates. Long-term rates also showed slight to moderate declines during the year. The 20-year treasury bond rate dropped from 5.07% to 4.92%.

Because there is virtually no risk of default in U.S. Government debt, 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 (1.05%), the intermediate-term rates on the 1-year T-note (1.19%), and the long-term rate on the 20-year T-note (4.92%) you see that the “yield curve” has an upward slope indicating that the interest rate increases with time to maturity. This suggests that investors (lenders) believe inflation will stay relatively constant during the upcoming year and then begin to increase in future years. However, the relatively “flat” yield curve (and corresponding historically low long-term interest rate) suggests that, even over the longer term, U.S. inflation rates are expected to continue to be moderate.

As the general economy continues to recover, look for the Federal Reserve to initially hold short term rates near their current levels, but eventually begin to increase them as the economy picks up steam. When rates do begin to increase there may be some unpleasant consequences. Rising interest rates put downward pressure on stock prices and increase the cost of capital in agriculture and elsewhere. Higher interest rates also sometimes put downward pressure on land prices. So while farmers with strong earnings potential and a proven repayment history should continue to enjoy access to capital at historically low cost levels for at least the remainder of 2004, all of the signs and a lot of economic history point towards at least moderate interest rate increases sometime in the not too distant future.

Table 1. Commercial Bank Loan Rates

Loan Type	End of September 2002	End of September 2003
<i>Seventh Federal Reserve District</i>		
Operating Loans	7.21%	6.41%
Feeder Cattle	7.26	6.47
Real Estate	6.84	6.12

Source: Federal Reserve Bank of Chicago (www.chicagofed.org).

Table 2. Farm Credit Services Loan Rates

Loan Type	Late January 2003	Late January 2004
Operating Loans (fixed)	5.00-6.50%	5.05-6.55%
Intermediate Loans		
5-year (adjustable)	6.55-8.05	7.05-8.55
5-year (fixed)	5.85-7.35	6.30-7.80
Real Estate Loans		
1-year (adjustable)	4.25-5.50	4.20-5.45
3-year (adjustable)	4.70-5.95	5.15-6.40
30-year (fixed)	7.60-8.85	8.00-9.25

Source: GreenStone Farm Credit Services (www.greenstonefcs.com).

Table 3. Key U.S. Interest Rates

Rate Type	Mid-January 2003	Mid-January 2004
Federal Funds Rate	1.23%	0.99%
Prime Rate	4.25	4.00
90-Day CD	1.34	1.05
90-Day T-Bill	1.19	0.87
1-year T-Note	1.45	1.19
10-year T-Note	4.03	4.04
20-year T-Bond	5.07	4.92
Corporate Bonds (AAA)	6.21	5.46
Conventional Mortgages	6.05	5.66

Source: Federal Reserve Bank of Chicago (www.chicagofed.org) and Federal Reserve Bank of Kansas City (www.federalreserve.gov).

TRADE AND POLICY OUTLOOK

David B. Schweikhardt, Sandra S. Batie, and Mary A. Schulz

The worldwide economy, including the United States, is transitioning out of the slow growth experienced in the last 2 years. Also, the weakened value of the dollar against other currencies is expected to dominate the outlook for U.S. agricultural exports in 2004. As a result, U.S. agricultural exports are expected to be more competitive in world markets. Canada and Mexico are expected to increase both their purchases of U.S. food products as well as their shipments of food products to the United States in 2004.

On the international front, the condition of agricultural trade depends on the condition of economic growth in the general economy. The estimates included in this report were issued by USDA in November 2003. Existing estimates of U.S. meat exports were made before the discovery of a dairy cow with BSE in Washington state. Since that time, most major beef importers have closed their markets to U.S. beef, shutting down U.S. exports to our largest buyers. The recovery of those export markets depends on the ability of producers and the government to restore the confidence of international buyers in the safety of beef.

U.S. Agricultural Trade Outlook

Total U.S. agricultural exports are expected to increase to \$59.5 billion in 2004, an increase of \$3.3 billion over 2003 (Figure 1). The changes in export volumes are expected to be mixed for several commodities compared to 2003. The export volume of wheat is expected to increase to 28 million tons in 2004 compared to 24.4 million tons in 2003. Corn exports are expected to increase to 53.0 million tons for 2004, compared to 41.0 million tons in 2003. Soybean and soybean meal exports are expected to decrease to 31.7 million tons, compared to 37.9 million tons in 2003. Prior to the closure of many international beef markets, beef and pork exports were expected to increase by \$300 million to \$5.5 billion in 2004. Unless these markets reopen soon, the actual dollar value will be significantly less. Poultry exports are expected to increase \$300 million to \$2.4 billion and dairy exports are expected to increase \$17 million to \$1.0 billion in 2004. Fruit and vegetable exports are expected to increase by nearly \$400 million to \$12.3 billion.

Total U.S. agricultural imports are expected to increase to \$48.5 billion in 2004, a level \$2.8 billion higher than 2003. Horticultural products are expected to experience the largest change, with an increase of \$1.6 billion to a projected total of \$21.8 billion. Canada (\$10.4 billion) and Mexico (\$6.5 billion) are projected to continue as the two largest suppliers of U.S. agricultural imports.

The destination of U.S. exports continues to evolve, with an increasing share of U.S. exports being sold in countries of the Western Hemisphere. For the first time last year, the Western Hemisphere passed Asia as the largest regional market. However, in 2004, Asia is expected to regain its first place status with \$24.1 billion in U.S. exports, and the Western Hemisphere is expected to import \$22.4 billion in U.S. goods.

Lead by increasing exports to Canada and Mexico, a larger share of U.S. exports are now destined for markets in the Western Hemisphere. In 2003, for the first time in recent history, U.S. exports to Canada (\$8.6 billion) surpassed U.S. exports to Japan (\$8.3 billion); Canada became the largest customer for U.S. agricultural exports. This trend is expected to hold for 2004 with U.S. exports to Canada (\$9.4 billion) remaining higher than those to Japan (\$9.1 billion). Mexico (projected to be \$8.2 billion in 2004) is gaining on Japan and could soon become the second largest market for U.S. agricultural exports. This trend reflects the shift of U.S. agricultural exports to the Western Hemisphere following 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 7 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 \$6.1 billion in 2004).

Conservation and Environmental Policy Outlook

The 2002 Farm Bill included a number of conservation programs (e.g. expansion of the Environmental Quality Incentive Program (EQIP), and the new Conservation Security Program(CSP)). The CSP has been embattled since its authorization. The 2002 Farm Bill stated that the CSP would be available to all qualifying farmers without an artificial budget cap. However, there have been several restrictions placed on the budget of the CSP since its passage. The recently passed "omnibus appropriations" bill limits funding for the CSP nationally to \$41 million for 2004. At the time of writing this outlook, the actual rules for the implementation of the CSP remains unclear.

In Michigan, 211 new contracts obligating \$9,727,900 were established under EQIP in FY 2003. 62 percent of the \$9,727,900 (\$6,031,298) was allotted for resource concerns related to livestock production. As usual, the demand for EQIP exceeds the financial resources available for EQIP, and there is a current backlog of 228 unfunded EQIP applications in Michigan.

There are also new environmental policy changes affecting livestock agriculture. CAFOs, concentrated animal feeding operations of 1000 animal units or greater, which have had a discharge of nutrients into state waters, must obtain a Michigan Department of Environmental Quality National Pollutant Discharge Elimination System Permit (NPDES); CAFOs with no record of discharge may elect to become a verified farm of the Michigan Agriculture Environmental Assurance Program (MAEAP) or obtain a permit. Smaller livestock operations, while not required to participate in MAEAP, are encouraged to do so voluntarily.

Figure 1: Value of Total U.S. Agricultural Exports and Imports

	Billions of dollars	
	Exports	Imports
1997	57.4	35.7
1998	53.7	36.8
1999	49.1	37.3
2000	50.7	38.9
2001	52.7	39.0
2002	53.3	41.0
2003	56.2	45.7
2004	59.5	48.5

2004 OUTLOOK FOR PRODUCTION INPUTS

Chris Peterson

The 2004 outlook for production inputs is dominated by pricing swings in fertilizer. Prices are sharply up for all three fertilizer components. In contrast, only minor changes are expected in chemical and seed markets.

Fertilizer

Prices for nitrogen, phosphates and potash are all up by as much as one-third from this time last year. Several different forces are at work causing this significant change in pricing.

With nitrogen, the cold winter has put pressure on natural gas supplies and prices. Alternative uses of natural gas tend normally to be more profitable than utilization in fertilizer, and the winter situation makes this even more true. Nitrogen supplies are thus adequate to tight. Ag producers should be sure that their normal supplier has adequate stocks for spring use.

Normally, phosphates and potash are not a reason for price concerns. However, this year and the future are likely to see a change in this pattern. Prices of both components are sharply up with supplies being very closely matched to demand expectations. The weak profitability of this sector in recent years and the resulting industry consolidation leave only a few players in these markets. In late January, Cargill and IMC announced the merger of their worldwide fertilizer assets into a new-publicly traded company. The players that are now left are moving to improve pricing in order to reestablish their own long-term economic viability.

Little shift is expected in crops planted around most of the state. As a result, little additional pressure on supplies or prices is expected from demand changes.

Longer term, the fertilizer markets will continue to be challenging. All three components are part of truly global markets. Supply and price are thus being set global. U.S. domestic producers of these supplies will continue to be competitively challenged, and more imports are likely for each component. Broader problems with rail transportation into the state will also cause continuing issues of getting supplies in a timely manner. Elevator and other local input suppliers really do not have spot market purchasing ability anymore. They must anticipate the needs of their ag producers and order well in advance of demand. Ag producers are well advised to have a good on-going relationship with their local suppliers to assure supply availability. Some grain/fertilizer contracts are even emerging at points around the state as part of better managing availability for both the supplier and the ag producer.

Chemicals

Supplies of ag chemicals are more than adequate with prices remaining relatively stable for non-glyphosate products. Generic supplies of glyphosates are of growing availability putting downward pressure on these prices. The demand for ag chemicals is stable to down in most parts of the state depending upon additional adoption of genetically-enhanced corn.

Longer term, suppliers are making little or no profit on chemical sales which are merely reduced to being a complement to seed sales. All of the major manufacturers of ag chemicals thus have little or no

research and development going into new products. If major resistance problems were to emerge, it is not clear what the capacity would be to respond.

Seeds

Seed supplies appear to be ample for the most part. Even when the very best varieties may be a bit short, there are still many good options for seed. The only exception appears to be non-GMO edible soybean seed which has been reported to be very hard to get. Prices appear stable to up slightly depending upon changes in tech fees.

Longer term, seed markets still face some uncertainty about worldwide adoption of GMO products. However, seed companies continue to invest in new biotech products, including ones based on gene stacking. As a result, conventional seeds may be increasingly hard to find in future years.

Energy

Energy prices movements are hard to predict at the moment. The cold winter, continued uncertainty in the Middle East, and the pace of economic recovery would all seem to signal upward price pressures.

FARMLAND PRICES IN 2004 – WHERE TO FROM HERE?

Gerry Schwab and Eric Wittenberg

Farmland prices are of interest to many but an enigma to most of us. Price is one measure of what something is worth – its monetary value. The market price for any one tract of land is determined by negotiations between a willing seller and willing buyers. Because farm land and other real estate are often the largest assets on the Net Worth Statement of a farm business, changes in the price of land can have a huge wealth effect upon farmers and other owners of real estate. According to the Economic Research Service, USDA; farm real estate accounted for 79 percent of total U.S. farm assets in the year 2000.

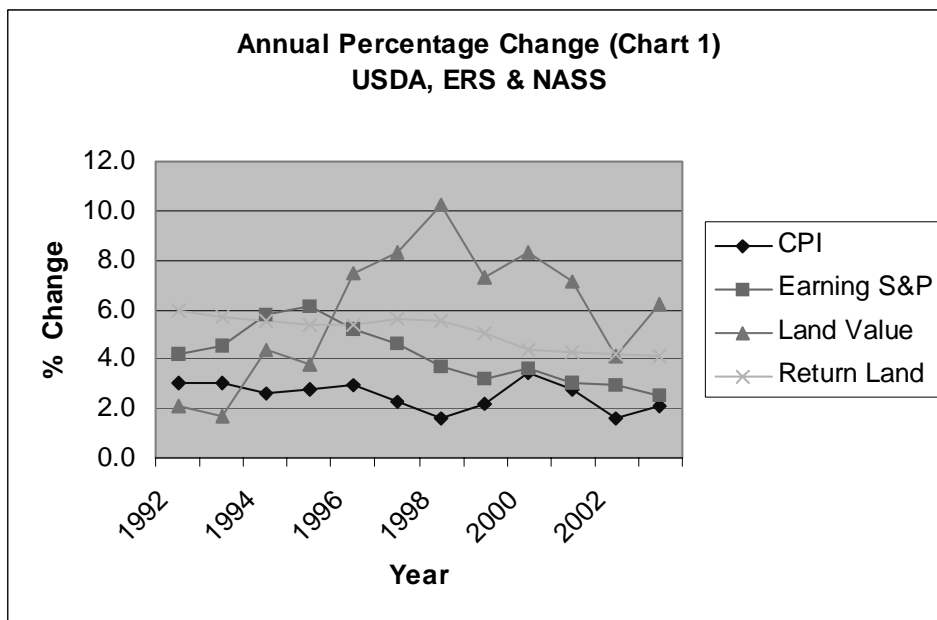
Is farmland a good investment? Michigan's farmland values continued to increase in 2003. However, land prices can go down! A major decline in land prices occurred during the depression years in the 1930's. The most recent downtrend in land prices occurred starting in 1982. Since 1987 when land prices bottomed out, prices for farm land in Michigan and across the United States have increased each year. The average nominal price for farm land in the USA is now about double the 1987 price. Michigan land prices are no exception to this trend. Land prices and cash rental rates gathered in the most recent Michigan State University survey of 2003 are presented in the table below.

Land Category	Price (\$/Acre)	% Price Change from Previous Yr	Cash Rental Rate (\$/Acre)	Value/Rent Ratio => Gross Annual % Return on Investment
Field Crop - Tiled	2,326	4.7	82	28 => 3.6%
Field Crop - Not Tiled	1,897	2.0	59	32 => 3.1%
Sugar Beet crop land	2,152	1.1	124	17 => 5.9%
Irrigated	2,495	6.9	119	21 => 4.8%
Recreational	4,019	22.6	--	--
Residential	9,061	4.0	--	--

Consistent with our data, the Federal Reserve Bank of Chicago reported a three percent (3%) increase in Michigan land values from October 1, 2002 to October 1, 2003. The USDA reported in its "Agricultural Land Values and Cash Rents" published in August 2003, that Michigan agricultural crop land values had increased over four percent (+4%) in the last calendar year to an average value of \$2,400 per acre.

“Is farmland a good investment?” is a challenging question to answer. Some data to help answer this question are presented in Chart One¹ below and in the table above. As indicated in Chart One for the years 1992-2003, the annual returns to investment (ROI) for land used in agriculture have averaged less than six percent. In the right hand column of the table above, a value to rent ratio of 20 would imply an annual ROI of 5%. As the value to rent ratio increases, the annual ROI is inversely related and declines. The value to rent ratio will increase where non-agricultural demand factors increase the price for land. The total return to land is this annual return on investment plus (minus) the capital gains if the land price increases (decreases). Michigan farmland values increased for each year illustrated in Chart One. The largest percentage increase for this period was 10.2 percent in 1998. For comparison purposes, the Consumer price Index (CPI) and an S&P earnings index for stocks are presented. The CPI is one measure of the change in consumer buying power and reflects inflation. Capital returns on common stocks, the Earning S&P line, are positive but have declined over the same time period and are below the returns to land.

The reality in Michigan is that agricultural land prices are strongly influenced by demands from non-



agricultural sectors. Farm land provides open space and other amenities that are in demand. As noted in the table above, the price per acre that is being paid for residential sites and for recreational use exceeds the price for farm land. Will the demand for land from the non-agricultural sector continue? Interest rates that are at a 45-year low as measured by the federal funds rate provide lower interest costs and thus, higher prices can be paid per dollar available for financing. Conversely if interest rates increase, demand for land could be dampened and land prices could decline. Given the current level of interest rates, the authors believe that the chance of interest rates increasing is much higher than the chance of interest rates

¹Chart One data from “Census of Agriculture”, Dept. of Commerce, Bureau of Census and USDA, ERS, based on Agricultural Land Value Survey.

decreasing. Other factors that influence the non-ag demand for farm land are employment rates, salary levels and wage rates, and energy costs. As reported in the October 2003 "Michigan Economic Update", personal income growth is forecast to be 4.9 percent in 2004 and 6.5 percent in 2005. As personal income increases, demand for land for housing and for recreation will increase.

The continued push in Michigan farmland prices increases the value of assets for farmers who currently own land but potentially increases the debt for farm businesses that buy land with borrowed capital. Concern is expressed here for the challenge to cash flow and pay for purchases of additional land. If equity is low and financing needs are high, it will be difficult to impossible for a newly purchased acre to be self-financing. Is there high equity in currently owned land that can help service additional debt? Will projected gross margins enable sufficient dollars to service debt, maintain the capital structure, and provide for family living? The relatively recent increase in prices of grains and soybeans will increase optimism but might be short lived. Debt on land purchases is not a short-run situation.

Elections in 2004 add to the uncertainty associated with predictions for the future. Terrorist threats and activities contribute additional instability and influence energy prices which are a concern to energy-intensive agriculture. If our economy can continue to recover without huge shocks, we believe that farmland will continue its moderate annual increase in price. Land is not a homogeneous asset and very location specific. Each tract of land is unique and makes it difficult to make general predictive statements applicable to all land types and locations across the state. Make your decisions based on the best knowledge and analysis that you can muster.

2004 ANNUAL OUTLOOK FOR CORN, WHEAT, AND SOYBEANS

Jim Hilker

Corn

What would you think if I said corn prices for the 2004-05 corn marketing year would average about the same as the 2003-04 corn marketing year? Which would be about the same as the average price for the 2002-03 corn marketing year. However, how we arrived, and how we may yet come, to this price level is different for each year, as can be seen in Table 1 below. The 2002-03 corn price worked it's way to the \$2.30 price level, after several years below \$2.00, by starting with plentiful beginning stocks, but having a poor yield. The 2003-04 marketing year is working it's way to this price level with reasonable beginning stocks, huge U.S. production, but a below average world coarse grain crop and strong world demand. I expect the 2004-05 crop to average in this \$2.30's price range by starting with only adequate beginning stocks, a trend yield, more U.S. corn acres, an average world crop, and strong world demand.

Can things change, of course. Not only that, corn prices are likely to be very variable throughout 2004 and 2005. The biggest factor here is the very tight world coarse grains stock to use ratio. It is projected to be the tightest since the 1995-96 crop year, and before that 1973-74 crop year. In fact, if we had know about the huge Chinese stocks in 1995-96, it would be the tightest since the early 1970's. However, nobody knew about the huge China stocks, even the Chinese, until 1999 when they did, with U.S. help, their first ever stocks survey. And now their ending stocks are now projected to be back down to only adequate levels at best, as far as we know. Even a moderately poor 2004 world coarse grains crop could send prices skyrocketing, even a moderately above average world coarse grains crop could send corn prices crashing. See my web page, <http://www.msu.edu/user/hilker/>, for price probability forecasts, i.e., what are your risks.

Let's review the 2003-04 corn marketing year, which we are right in the middle of. Corn planted acres were down marginally, but acres harvested were up due to the much better growing season and therefore less abandoned acres and acres forced to be harvested as silage. On top of that the U.S. had a record corn yield, 142.2 bushels per acre, 2.5 bushels per acre above trend. These factors led to a record U.S. corn crop. However, due to smaller beginning stocks we did not quite return to the huge total supplies seen in 2000-2001, but big enough that we would need strong use to have decent prices.

Use/disappearance has been strong to date, and is projected to remain strong. Corn used for feed is projected to be up as we have a few more animal grain consuming units and we expect them to be fed to heavier weights. Hog and poultry numbers are up, cattle numbers are down. As can be seen below, the Food, Seed and Industrial Uses category is up sharply again in 2003-04, after going crazy in 2002-03. These increases are almost entirely due to increases in ethanol production. On the supply side, we have been and continue to increase our capacity to produce ethanol rapidly. On the use side, we can use all we produce due to the conversion over to ethanol from MBTE for clean air reasons, and the high gasoline prices.

Exports are also a strong point this year, expected to be up 24% from last year's lower than normal showing. The reason for this is a below average corn crop in China, and very poor coarse grain crops in the former Soviet Union countries and Eastern Europe who both were big competitors last year. When you total up expected use, the 5.6% increase in total supplies were more than offset by the 7.3% increase in

total use. This leaves us with adequate ending stocks of 981 million bushels for the 2003-04 corn marketing year, 9.6 % of use.

So how is the 2004-05 corn marketing year shaping up? Check out the last column of Table 1. The March 1 USDA Prospective Plantings Report, to be released March 31, will give us the first survey estimate of 2004 corn planting intentions, but that never stopped me. I project that corn planted acres will return to near the 2002 levels with a normal planting season and this year's good yields. I would expect a trend yield of 141.4 bushels per acre. This would leave total supply near this year's levels.

Animal grain consuming units will be in the same ball park, plus we will have more ethanol leftovers to use as feed, so I have left feed use the same. I expect ethanol production and use to increase at the same or higher rate as this past year, especially if the Energy Bill in Congress passes and the Renewable Fuels Standards are implemented. I expect exports to fall off some, as I have no choice but to project the rest of the world will have a normal crop. However, I expect world use to be up.

This would put ending stocks and ending stocks-to- use only marginally above this year's, and that would indicate prices in the same range. An annual average weighted price of \$2.35 would indicate a harvest price in the \$2.20-25 range and perhaps ending up in the mid-\$2.40's if a normal seasonal pattern develops.

Wheat

World wheat stocks are like corn, very tight. Wheat is also like corn in the sense that there have been a lot of extra wheat stocks found in China over the past couple years. Like corn, those stocks have been used up. What's happened? Two years ago the U.S., Canada, and Australia had poor wheat crops, but Europe, as in the Continent, Spain up through Russia, made up for much of the shortfall, but world stocks dropped. This past year the opposite occurred, poor crops in the extended Europe, and good crops in the U.S., Canada, and Australia. China's wheat crop was down some in both years. World wheat stocks dropped again. If the world produces a crop as small as last year, 2003-04, this next year, prices could take off. If the world produces a wheat crop a little bigger than it did in 2001-02, prices will likely fall. If the world produces a trend crop, a little smaller than the 2001-02 crop, prices will likely remain about the same. Guess where I come in?

I show my wheat projections in Table 2 below, in the Supply/Demand Sheet For Wheat. The U.S. planted a few more wheat acres in 2003, harvested almost 7 million more acres, and had a record wheat yield. Luckily we didn't bring in much carryover. This put total supply for 2003-04 up 17.4% from 2002-03, but still smaller than the previous two years.

Food use has been dropping marginally for the past three years. Is it the low carb diets? Feed use which mostly takes place in the summer when it is often competing against the seasonally high corn prices, is projected to be up 100 million bushels. And this is backed up by the first two quarterly stocks reports. Exports and export sales to date, along with the world supply/demand situation indicate that exports will be up 32%. This puts total use up 18.3%. Ending stocks as a percent of use are projected to be down a bit.

As we look at 2004-05 I see a bottom line not much different than this year, although how we get there will be different. Winter wheat seedings were down 1.5 million acres, mostly in the droughty high plains. Soft red winter wheat seedings for the U.S. were up a bit, although all winter wheat plantings were

down 11.6% in Michigan. Regularly I would plug in the U.S. trend yield for wheat of 40.7 bu/ac into my projections, but after studying the winter wheat ratings to date, I have scaled my yield projection back to 39.5 bu/acre. Less acres and lower yield gives us fewer bushels. As shown in column 3 of Table 2 below, total 2004-05 wheat supply is expected to be down.

However, total use is expected to be down as well. My projections continue the trend of less wheat used for food, but at a slower rate. Feed use is expected to be down with lower production. Exports are expected to be lower with recovering world production, but I don't expect a collapse. While total use will likely be down, the drop isn't expected to be as much as the drop in total supply, this means lower projected ending stocks. The net result is an ending stocks to use ratio not much different than what is projected for this year. This would indicate prices in the same range.

Soybeans

Now for a change, 2003-04 projected world soybean stocks, while down from last year, are expected to be large, unlike corn and wheat. On the other hand, U.S. stocks relative to use are expected to be about as tight as ever seen. Both projections are for late summer, point being, the world soybean stocks are very tight today, but are not expected to be as tight as soon as the South American soybean crop hits the market. But stocks will remain tight in the U.S., to the point of needing to import meal and oil, if not beans.

The U.S. planted a half million less acres to soybeans last spring mostly due to the wetness at planting time, however we harvested almost as many, as abandonment was back to normal. The problem was yields were terrible. The U.S. average yield of 33.4 bu/ac was the worst since 1993 and close to 6 bushels per acre below the trend yield. Michigan did worse, 27 bu/ac, 13 bushels below trend. It may seem odd that the U.S. had such poor soybean yields at the same time the country had record corn yields. For the most part corn plantings were timely, but then it rained pushing soybean plantings back. This led to the dry late summer having a greater affect on soys than corn. Add to that the aphid problems in soybeans and you have your answer. Thus we had low production and low carryin, leading to a small 2003-04 U.S. total supply, as shown in Table 3.

Now for use. When the supply is this tight, you first project the ending stocks, i.e., what is the lowest the market will allow stocks to go, and then total use is the difference between total supply and ending stocks. This obviously means some allocation in use. Exports have been strong to date as world demand for soybean products continues to grow. We have already exported close to 75% of the 2003-04 projection in five and a half months. Exports are expected to slow to a drizzle as the South American crop becomes available to the market. So even though the 900 million bushel export projection looks small compared to last year, it is amazing how the market was willing to drive the price up to the high levels we have seen to get every thing they could. Crush is expected to also be down sharply, simply because we won't have any more soybeans to crush. However, the decreases in meal and oil use due to the lower crush is almost all in exports; domestic use is expected to be down only slightly. In fact we expect to import some oil and meal to make up for any shortfalls as we go through the year.

Ending stocks at 5% of use puts the average weighted U.S. price at \$7.25 in today world. Five to seven years ago prices would have been much higher with this tight of U.S. stocks, but now South American plantings can react to a known U.S. crop in the same year. Can things still go amiss this year? The South American crop could still come in bigger or smaller, the Avian Bird flu hitting the Pacific Rim

could/is hurting meal demand, how will this year's U.S. soybean crop develop over the summer, and yes, there is still risk in the soybean market not shown in the numbers on the balance sheet.

I expect planted soybean acres in 2004 to be near or slightly above this year's level, new crop price bids are good and the acres are out there. The trend yield is for 2004 is 39.5 bu/ac. This would lead to the largest production since 2000, but beginning stocks will only be half the size. Thus total supply will be up significantly, but not to the levels seen in 2000-01 and 2001-02, closer to 2002-03. Check out the third column of Table 3 to follow these 2004-05 projections.

Crush is expected to return to close to the same level as before. Remember, we will continue to have more protein feed from the ethanol process. World demand is expected to remain strong, bringing back projected exports, despite another large crop expected out of South America in 2005. This puts the use level back above the 2002-03 level, with projected ending stocks being about the same as the 2002-03 level, as well as the stocks to use ratio, which means the expected price should be about the same as in 2002-03, \$5.50 per bushel.

TABLE 1
SUPPLY/DEMAND BALANCE SHEET FOR CORN

	Estimated	Projected	
	2002-03	2003-04	Hilker 2004-05
(Million Acres)			
Acres Planted	79.1	78.7	79.3
Acres Harvested	69.3	71.1	72.3
Bu./Harvested Acre	130.0	142.2	141.4
(Million Bushels)			
Beginning Stocks	1596	1087	981
Production	9008	10114	10223
Imports	<u>14</u>	<u>10</u>	<u>11</u>
Total Supply	10618	11211	11215
Use:			
Feed and Residual	5593	5775	5775
Food, Seed and			
Ind. Uses	<u>2346</u>	<u>2480</u>	<u>2630</u>
Total Domestic	7939	8255	8405
Exports	<u>1592</u>	<u>1975</u>	<u>1805</u>
Total Use	9531	10230	10210
Ending Stocks	1087	981	1005
Ending Stocks, % of Use	11.4	9.6	9.8
U.S. Loan Rate	\$1.98	\$1.98	\$1.95
(U.S. Season Average)			
Farm Price, \$/Bu.	\$2.30	\$2.30	\$2.35

Source: USDA and Jim Hilker. (1-12-04)

TABLE 2
SUPPLY/DEMAND BALANCE SHEET FOR WHEAT

	Estimated 2002-03	Projected 2003-04	Hilker 2004-05
(Million Acres)			
Acres Planted	60.5	61.7	60.2
Acres Harvested	45.9	52.8	50.7
Bu./Harvested Acre	35.3	44.2	39.5
(Million Bushels)			
Beginning Stocks	777	491	559
Production	1619	2337	2003
Imports	<u>77</u>	<u>75</u>	<u>78</u>
Total Supply	2473	2903	2640
Use:			
Food	918	910	905
Seed	84	84	85
Feed and Residual	<u>126</u>	<u>225</u>	<u>150</u>
Total Domestic	1128	1219	1140
Exports	<u>854</u>	<u>1125</u>	<u>1000</u>
Total Use	1982	2344	2140
Ending Stocks	491	559	500
Ending Stocks, % of Use	24.8	23.8	23.4
U.S. Loan Rate	2.80	\$2.80	\$2.75
Season Average Farm Price			
U.S. \$/Bu.	\$3.56	\$3.35	\$3.40
Michigan \$/Bu.	3.20	3.30	3.20

Source: USDA and Jim Hilker. (1-12-04)

TABLE 3
SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS

	Estimated 2002-03	Projected 2003-04	Hilker 2004-05
(Million Acres)			
Acres Planted	73.9	73.4	73.2
Acres Harvested	72.4	72.3	72.1
Bu./Harvested Acre	38.0	33.4	39.5
(Million Bushels)			
Beginning Stocks	208	178	125
Production	2749	2418	2848
Imports	<u>5</u>	<u>8</u>	<u>7</u>
Total Supply	2962	2604	2980
Use:			
Crushings	1615	1455	1610
Exports	1045	900	1030
Seed, Feed and Residuals	<u>124</u>	<u>124</u>	<u>165</u>
Total Use	2784	2479	2805
Ending Stocks	178	125	175
Ending Stocks, % of Use	6.4	5.0	6.2
U.S. Loan Rate	\$5.00	\$5.00	\$5.00
(Million Bushels)			
U.S. Season Average Farm Price, \$/Bu.	\$5.53	\$7.25	\$5.50

Source: USDA and Jim Hilker. (1-12-04)

MICHIGAN SUGARBEET OUTLOOK FOR 2004

Jake Ferris

Payments to sugarbeet growers for the 2002 crop were well above the year before as beet sugar prices in the midwest averaged 27.02 cents per pound, 6 percent above the year before, and the sugar content also exceeded that on the 2001 crop. The average sugarbeet price for the 2002 crop was about \$36.50 per ton, notably above the previous five year average. Yields, at about 18.1 tons per acre on the 2002 crop, were somewhat below trend but the average gross margin over variable costs per acre was close to or above the previous year.

Based on surveys of the Michigan Agricultural Statistics Service, growers planted 179 thousand acres to beets in 2003 and harvested 178 thousand acres which indicated excellent harvesting conditions. The acreages were about the same as the year before. The yield, at 19.1 tons per acre, was about in line with trends and produced a crop 6 percent larger than the year before. Early indications were that the sugar content was even higher than the strong 18 percent of the 2002 crop.

The Commodity Credit Corporation of the U.S. Department of Agriculture announced that the national average loan rate for refined beet sugar will be 22.9 cents per pound, with the regional rate for Michigan and Ohio at 23.8 cents per pound, unchanged from last year. In the fourth quarter of 2003, *Milling and Baking News* quoted wholesale refined beet sugar prices at Midwest markets at 24.09 cents per pound, 12 percent below the year before and 11 percent below the fiscal year 2003 average. This points to lower beet sugar prices for the 2003 crop relative to the 2002 crop. However, the higher sugar content should keep grower payments per ton only slightly below the relatively favorable season of the previous year. Some offsetting compensation came from the Farm Service Agency's distribution of \$1.75 million to growers in late 2003 who suffered sugarbeet losses in either 2001 or 2002 due to a natural disaster.

The U.S. Department of Agriculture projected in January that the ending stocks of U.S. sugar for 2003 crop year would be 20.3 percent of use, up from 12.8 for the 2002 crop year and 14.0 for the 2001 crop year but about the same as for the 1999 and 2000 crop years. In the 1999 and 2000 crop years, Midwest refined beet sugar prices averaged 22.0 cents per pound and in the 2001 and 2002 crop years averaged 26.3 cents per pound. This indicates continued downward pressure on beet sugar prices for the 2003 crop year.

FARM MANAGEMENT IMPLICATIONS FOR CASH CROP PRODUCERS

Gerry Schwab

Learning from the past.

Every day that we are given is a learning opportunity. The year 2003 provided many learning opportunities. We again learned that weather events can be far from ideal. April 2003 provided some good early planting weather. May was too cold and wet resulting in delayed planting and crop emergence. Summer followed with months of too little precipitation in many areas of Michigan. Crop yield projections were probably not met on many Michigan farms. As presented in the table below; Michigan soybean yields in 2003 were dismal, corn yields were below trend but better than in 2002, while other crops as sugar beets, potatoes, and wheat had relatively good yields. Lower temperatures during the growing season produced corn grain with high moisture that when combined with higher energy prices resulted in high corn drying costs. This 2003 experience might suggest the need to rethink the maturity length and variety of corn being planted. Another learning point created with the experience of low yields and associated financial risk is the potential need for risk management tools; e.g. crop insurance sign-up deadline is March 15 for spring planted crops.

<u>Crop</u>	<u>Yield per Acre¹</u>		
	<u>2002</u>	<u>Unit</u>	<u>2003</u>
Corn	115	Bu	126
Soybeans	39	Bu	27
Sugar Beets	18	Ton	19.1
Potatoes	305	Cwt	330
Wheat	67	Bu	68

Gross farm income is determined by price times yield. Prices determined in the marketplace for many Michigan-produced commodities are another source of risk and opportunity for grain farmers. Who among us predicted prices for 2003 produced soybeans that far exceeded the \$5.00/bu loan rate? MSU ag economists and other professionals have been advocating the need for planning – including the development of a marketing plan. A marketing plan requires projections about expected production levels for each commodity, knowing own costs of production, understanding own financial situation, and thus being able to make decisions on establishing thresholds for price levels and pricing tools to be employed when the market price reaches a specified trigger level. We now learn again that having a plan does not guarantee an optimal result. But does that imply that planning is not valuable? No, planning for 2004 is a must and we must continue to learn from past experiences.

¹*Agriculture Across Michigan*, Michigan Agricultural Statistics Service, Volumes 24 and 25, January 2003 and 2004 respectively.

Planning for 2004:

What to produce in 2004? Corn and soybean acres planted are close to being equal shares in both the U.S. and in Michigan. In 2003, Michigan farmers planted 2.3 million acres of corn and 2.1 million acres of soybeans. These two crops have the highest acreage of annually planted crops. This also suggests that corn and soybeans are a major part of the crop rotation system for many farmers in Michigan and in the US. Should the crop rotation system be altered in 2004? What factors and issues are important in the decision?

Most Michigan grain and soybean producers are in the commodity business. The most profitable farm businesses will be the low-cost producers who are also good marketers. Profit is the margin between the value of production and the cost of production. Some items that need to be included in your decision framework are:

- Prices – expected prices are one major component of the income generation equation. The current soybean to corn price ratio, calculated from early February 2004 CBT futures prices for new crops, is currently higher than the more normal historical ratio of 2.5. This suggests that soybeans are currently priced relatively high compared to corn. What will this expected price ratio be when you make planting and pricing decisions?
- Yields – Farm field records should be kept to provide production data for historical analysis and for future planning. Soybean yields in 2003 on many Michigan farms were low relative to corn yields. Was this change a one-year anomaly due to dry weather and aphids that adversely affected soybean yields? Plans should be based on long-term trends and averages, not one-year deviations from trend.
- Variable Input Costs – fertilizer costs for nitrogen, phosphorus and potassium are projected to increase in 2004. Higher nutrient requirement crops as corn may not be as competitive in this price environment. Other energy inputs as fuel may be modestly increased in price.
- Cropping system – crop acreage may be adjusted at the margin but large shifts in crop acreage can adversely impact soil and agronomic considerations in your crop rotation system.
- Develop an organizational framework and criteria to help sort these factors above to make a business plan for production and marketing decisions. An example budgeting framework for corn and soybean alternatives is illustrated below.

<u>EXPECTED</u>	<u>CORN</u>	<u>SOYBEANS</u>
Yield/acre	140 bu	40 bu
x Price/Bushel	\$ 2.35	\$ 6.00
= Value of Production/Acre	\$ 329.00	\$ 240.00
- Variable Costs/Acre for Production and Harvesting (excludes Land, Capital & Management Cost)	\$ 200.00	\$ 95.00
= Returns/Ac to Cover Land, Capital, & Mgt Cost; and Contribute to Profit	\$ 129.00	\$ 145.00
Breakeven Price to Compete with Alternative Crop ²	\$ 2.46/bu	\$ 5.73/bu

- Consider use of tools to manage risk associated with unknowns regarding change in prices and yields. Know how much risk can be carried by own equity versus how much risk needs to be transferred.
- Stay on the information highway. Remember that we are all in a global market where events far away can have a huge impact on home situation; e.g South American soybean production has large impact on world supply, Avian Flu in Asian countries can reduce demand for feed, and BSE (mad cow disease) in North America can influence beef prices and associated feed demand.
- Have a written plan for your farm business that might include alternative scenarios for contingent events of the future. Written plans can assist in developing clear thoughts and criteria for planting and pricing decisions. Plans do not provide a guarantee to success but should increase your odds of being successful.

²Breakeven (BE) Price must cover variable costs (VC) and opportunity cost (OC); i.e. the profit from next best alternative. BE Price/bu for Corn = (\$200 VC/acre corn + \$145 OC/acre)/140 bu expected corn yield/acre.

2004 ANNUAL CATTLE AND HOGS OUTLOOK

Jim Hilker

Cattle

It appears this annual outlook for cattle will need to be rewritten daily. For example, the constantly evolving BSE situation, new ideas where the low carb diets may take us, what feed costs will be in the dynamic world crop situation, if there will be grass to feed the beef cow herds, given drought in many of the cow-calf areas. When I put together my livestock projections, I compare them with the USDA monthly projections, the Livestock Marketing Information Center's(LIMC) forecasts, updated periodically, and what the futures markets are trying to tell us daily. All of these forecasts try to incorporate all the information available, such as the Cattle Inventory Report, which will not be in two of these until they are updated shortly. I'll try to include these in mine, the cattle on feed reports, and the daily information to date. Each has a little different story to tell because of the assumptions one has to make about the information. For example, the USDA may leave out when Japan will return to the U.S. beef market until it does return, ie, no assumption. The LMIC may assume Mexico will return after the first quarter, and Japan in the second half of the year. Neither is right or wrong, just different. I guess all I am telling you is what you already know, this is Agriculture, and it will always be risky. You don't have and won't have control over where the market is going, but you can sometimes do something about the risks, ie, price or production contracts, production practices(probably the most important), size of deliveries, and timing.

The January 1 USDA Cattle Inventory Report was released January 30. All our projections are based on how many cattle we start with, and given the breeding stock, how many may come in the future. The report showed total cattle and calves down 1.3% from last year. Beef cows that calved were down .4%. Beef replacement heifers were down 1.9%. Beef replacement heifers expected to calve were down 1.6%. The 2003 calf crop was down .8%. Prior to this last cattle cycle, three years of good calf prices generally meant expansion, it has now been 6-7 years of good calf prices. The several years of drought in many beef cow areas, the prior very low calf prices, and uncertainty appear to have changed this hypothesis; we are still shrinking.

Total cattle on feed in the U.S. on January 1 was up 4.5%, remember few had been delivered between December 23 and January 1 due to the BSE announcement. The total combination of calves under 500, other heifers and steers over 500 pounds outside of the feedlots were down 4%. These are the cattle available for the feedlots as we go through the year. On top of this, cattle slaughter for the month of January was down 15.6%. This helped January prices, especially given no exports, but they have to come to the market sometime.

Now for my best forecasts, being aware of the first paragraph. Usually we forecast the quarterly production, compare it to a year ago, and adjust the prices. This year we have to add back in the fact that all and then part of what we would have exported will be in the domestic market. One nice addition, it appears that beef demand has continued to grow, or in other words, people are willing to buy more at the same or higher prices than they would have a year ago. There are estimates that 32-36 million people are on low carb diets, which generally also means high protein diets. There may be a correlation.

First quarter production is expected to be down 3.2-3.7%. This would lead to choice steer prices in the \$74-78/cwt range. Second quarter production is expected to be down 1-5%, obviously not a very concise forecast, but probably accurate given the situation. This will put choice steer prices in the \$68-78 range,

but more likely in the lower half of that range unless the Mexico export market opens up. I expect little chance that Japan will open up in the second quarter.

Third quarter beef production is expected to be down 1-5%. Most of these wide spreads in the production estimates are due to the wide spread in possible slaughter weights versus the slaughter numbers. Given what the production turns out to be, and how much is allowed to be exported, choice steer prices could range from \$65-75 in the third quarter of 2004. Fourth quarter beef production is expected to be up 1-5%, putting choice steer prices in the \$70-81 range.

Annual beef production is expected to be down .3-3.2% for the year. The average annual price is expected to be in the \$70-78/cwt range. While historically these prices aren't too bad, they are very poor given what had to be paid for the feeders that will come to the market in the first half of the year.

The 7-800# feeders are expected to be in the \$80-89 range as we go through the year, averaging in the mid-80's. Feeder steers in the 5-600# range are forecast to be in \$91-105 price range through the year depending on the steer and feed prices. If the drought lightens up in the high plains, from Mexico to Canada, cow-calf producers should see a nice profit, but will they expand?

Hogs

I won't go through all the caveats, i.e., reasons I might be wrong with my hog price projections, that I went through for beef, but please assume they are all there. The demand picture in the pork sector for 2003 was a little puzzling in some sense, demand at the retail level appeared to be level or off a little, but demand at the live hog level showed some gains, especially late in the year. I am assuming in my forecasts that pork demand will be equal to or better than last year.

Pork production in the first quarter of 2004 is expected to be up 1-3%. Pork production in January was up 1.1%. Live hog prices are expected to average in the \$37-40 range. This is the last year I expect to give my price forecasts in live weight, most of the industry has moved to carcass weight pricing and quotes. Basically you can divide live prices by .74 to get carcass prices, and multiply carcass prices by .74 to get live price equivalent.

Pork production in the second quarter is estimated to be up 3-4%, leading to an average price in the \$39-43 range. Production in the third quarter is projected to be 1.5-2.5%, leading to an average third quarter price of \$39-43/cwt. Production in the last quarter of 2004 is estimated to be up 1-3%, with the average price being in the \$33-36 range. The annual average price is expected to be \$37-40/cwt.

Check out the accompanying article by Schwab and Black, "LIVESTOCK SITUATION: MANAGERIAL CHALLENGES AND OPPORTUNITIES", for further information and to help evaluate how to handle these tough times in the livestock industry.

LIVESTOCK SITUATION: MANAGERIAL CHALLENGES AND OPPORTUNITIES

Gerry Schwab and Roy Black

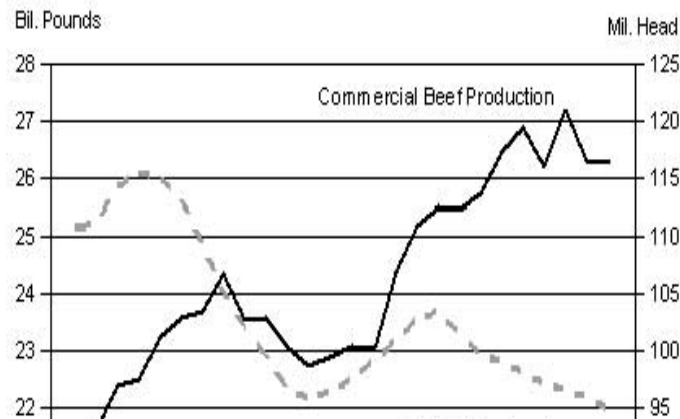
Some brief observations about the year 2003 for the beef and pork sectors plus some prognostications and managerial implications for 2004 include:

- In 2003, the pork sector increased production from its record level in 2002 by 1.2% while the beef sector production was stable. As illustrated in graphs below, meat production increased but breeding stock numbers did not increase in 2003.
- Increased pork production has been enabled, not by increased sow numbers, but by increased reproductive efficiency, higher slaughter weights, and record high imports of 7million live hogs -- about 70% of these imports are feeder pigs. US hogs slaughtered in 2003 were approximately 100 million head and are expected to increase in 2004 to 102.5 million head. Michigan swine operations have survived and prospered by increasing efficiencies throughout their production, marketing, and financial activities. With projected hog prices that may be challenged in 2004 to exceed \$40/cwt on a liveweight basis, feed costs that are expected to increase; the need for continued improvement in efficiencies will remain.
- The beef sector's production in 2003 was stable and approached the 2002 record-high level. Cow numbers and heifer retention did not increase in spite of record-high prices in 2003. High cattle prices increase the opportunity cost of retaining heifers in the herd. Drought conditions in western US and incidence of BSE in Canada in 2002 and in US in 2003 have increased the risk of increasing breeding stock numbers; and appear to have "stretched-out" the current cattle cycle.
- Beef cow-calf producers in their 5th year of cattle cycle experienced record-high prices for calves that should have enabled profits for their farm and industry. The year 2004 looks promising for this sector if incidence of disease remains low, consumer confidence in the beef product remains high, and projected increase in feed cost does not dampen the demand by the fed-beef industry for feeder cattle.
- Cattle feeders in the finished beef industry tend to have volatile earnings. The high prices for feeder cattle that provide the opportunity for cow-calf producers to be profitable are conversely a high cost input for cattle feedlots. The price margin between bid prices on feeder cattle and prices received on finished cattle is critical to the chance of cattle feeding being profitable. A rough rule of thumb is that a \$1/cwt change in expected fed cattle price results in a \$2.25/cwt change in the price of a 500 pound feeder. Calculating break-even bid prices that include a desired profit margin given projected future finished beef prices is highly recommended before entering the fray.
- Price discovery and market access are becoming an increasing problem in both the pork and beef sectors. With continued consolidation in the meats industry and fewer finished livestock being sold on the spot market, alliances and contracts of various sorts will need to be evaluated for price determination and quality related factors that impact price received and risk bearing.
- Entering the pork production industry as a contract grower-finisher is one alternative available in Michigan. New potential contractees need to have due diligence in evaluating the contract, the contractor, their location; and evaluate the financial risk being assumed before entering the contract.

- Environmental concerns are increasingly important to livestock producers and to their neighbors. As our rural neighborhoods become increasingly populated by those who want to live away from urban pressures but also do not appreciate all aspects of the rural atmosphere, scrutiny and concerns will be expressed. Having in place a comprehensive nutrient management plan is one important step. Participating in educational programs conducted by Michigan State University Extension, by Michigan Agricultural Environment Assurance Program and by other professional organizations should be helpful in improving our collective knowledge base. Knowledge can be a very effective risk management tool.
- The need to continuously be informed about an ever-changing market in a dynamic world is paramount to conducting a successful business. Let us all improve and work towards having a profitable Michigan livestock industry.

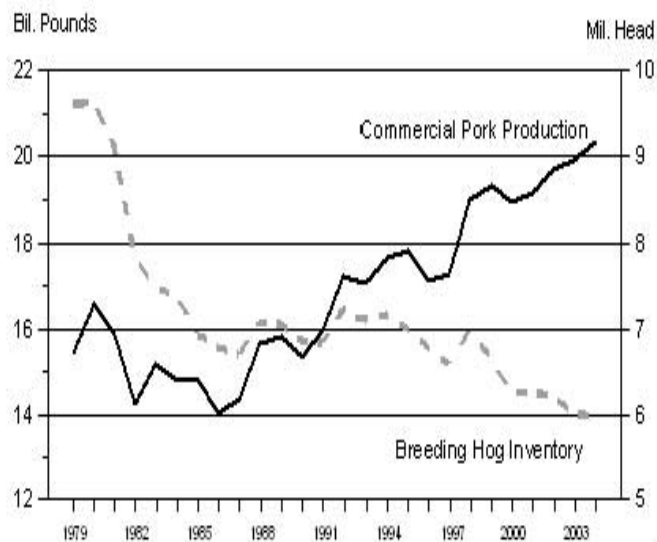
BEEF PRODUCTION vs CATTLE INVENTORY

Inventory January 1, U.S.



PORK PRODUCTION vs BREEDING HOG INVENTORY

Inventory December 1 of Prior Year, U.S.



DAIRY OUTLOOK

Christopher Wolf

The long-awaited milk price recovery arrived in full in the Fall of 2003 while 2004 is shaping up to be the best farm milk price year since 2001. In order to evaluate the prospects for 2004, we begin with a review of the past year then move to current supply and demand conditions and the price forecast.

2003 Review

Following a difficult farm financial year in 2002, the dairy markets were waiting for cow numbers (and therefore milk production) to decline. Milk cow numbers began to fall in March and continued to decline throughout the remainder of 2003. End of year national milk cow numbers finished down 154,000 from their peak (9.155 million) in March (Figure 1). Milk production levels tend to correspond to changes in milk cow numbers and monthly milk production also declined throughout the year as milk per cow increases could not overcome the declining national herd size.

Following 2002 and early 2003 when milk prices were continually at or even below the \$9.80/cwt support price, the August Class III price was announced at \$13.80/cwt which was \$2.02/cwt above the July price and \$4.05/cwt above June. The price recovery helped the milk/feed price ratio gain a foothold above 3.0 (Figure 2). The milk/feed price is the Michigan all milk price divided by a feed cost index composed of the average Michigan prices of corn, hay, and soybeans. The milk price to feed cost ratio is a proxy for profits. A higher ratio indicates a larger margin between milk and feed prices and indicates that the average Michigan dairy farmer is better off than with a lower ratio. A value of three is considered conducive to increasing milk production while below three is signaling a contraction.

The importance of the Milk Income Loss Contract (MILC) payments in maintaining production in times of low prices is highlighted in Figure 2. With the MILC payments hovering around \$1.75/cwt in spring and early summer 2003, the ratio surpassed three in August. Of course it was the case that many farms used up all MILC payments (2.4 million pounds of annual production) before summer on the government fiscal year (October 1 – September 30). With the Class I mover above \$13.69/cwt from September through October there was no MILC payment in those months. Regardless, the MILC payments were fundamental in the delayed national milk production contraction.

While there were many interesting dairy policy developments in 2003, perhaps the most interesting was a voluntary industry program. Cooperatives Working Together (CWT) was the brainchild of National Milk Producers Federation, an organization of dairy cooperatives whose members produce about 70 percent of the national milk supply. The program imposed a five cent per hundredweight assessment (from July 1, 2003 through June 30, 2004) to fund a three-pronged approach aimed at reducing milk supply by 0.7 percent (1.2 billion pounds) over a 12 month period resulting in an increased milk price. The three program aspects include export subsidies, whole-herd buyouts, and a reduced marketing program which pays participants to decrease milk production by 10 percent (or more) over a 12 month period.

To address regional supply concerns participation goals were divided by region across the country. The intention was to remove more milk production from the growth regions and less milk production from regions that have had relatively stagnant growth. Program participation was determined by bidding on a per hundredweight basis of production foregone. More than 2,500 bids were submitted nation-wide. Eighty percent of the bids were to retire whole herds with the remainder to reduce production. About one-

third of the bids came from the Midwest region (where Michigan resides). The average bid was about \$4/cwt for both herd retirement and reduced marketing.

The cows retired were removed in October (almost 33,000 cows) which led to a US dairy cow slaughter peak of 281,000. This represented the largest single-month slaughter value since the same month 1996. The CWT production reductions are to continue through the summer months. The CWT program is planning to subsidize the export of 30 million pounds of cheese at \$1.30/lb and 10 million pounds butter at \$1.10/lb which should lend support to both markets.

In an odd policy twist, the producer funded CWT and government MILC programs are working to negate each other to some degree. The CWT program is removing production while the MILC is encouraging production. The MILC program is set to expire in September 2005. There currently is on-going discussion of the potential to continue the CWT program. One potential issue is that Canada's producer funded export program was recently ruled illegal by the WTO. However, CWT is not identical to the Canadian program and may withstand a challenge.

Supply situation and forecast

US milk cow numbers have stabilized following the cull down. A couple of supply factors indicate that milk production may not grow significantly this year. First, protein costs are up. The ban on the use of blood meal contributed to the increase in protein cost but the major reason is the soybean market. The US milk/feed price ratio is below 3.0 as of January 2004 which is not conducive to milk production expansion. If the South American crop helps to lower soybean costs, then protein may have less impact later in the year. Second, Monsanto recently announced that bST sales would be cut by fifty percent in 2004 because of production difficulties in their Austrian plant. While only Monsanto knows exactly how many cows were injected last year, using simple aggregate cow numbers and previous utilization estimates one can estimate that a fifty percent reduction could account for one percent of US milk production. The entire one percent decline is not likely to be realized, however, as the market will respond to the increased prices offered in the wake of Monsanto's announcement.

Butter stocks have been drawn down to "normal" levels and the cash butter market has been very strong recently. An average butter price of \$1.40/lb would translate to \$11.50/cwt Class IV and that is a reasonable estimate at this time. Class III price benefits from the strong Class IV showing as the milk production moves to butter from cheese.

Demand situation and forecast

A recovering economy contributed to a 2.8 percent increase in the commercial disappearance of butterfat through October of 2003. A strong fourth quarter is also likely to reveal itself as Class II (milk for ice cream) butterfat sales were strong. Meanwhile the commercial disappearance of cheese was flat. The current high prices of butter may discourage fat consumption. If the economic recovery proves to be robust, meals away from home could assist in jump-starting cheese consumption growth.

2004 forecast

Reasons for optimism abound at the current time and the 2004 milk price outlook reflects this optimism. As of this writing (February 1) an average Class III price of 13.00/cwt can be obtained from the futures market

for the next 12 months (February 2004 – January 2005). When you consider that the five-year average Class III price is just over \$12/cwt, this looks to be quite good. Producers may want to consider their cost of production and locking in profits in some situations. Off-setting the higher milk prices are the increased protein costs which will cut into farm profit margins. Here again producers may consider locking in feed prices if they can lock in a profit. A \$13/cwt Class III price translates to a \$13.75 to \$14.25 Michigan mailbox price. The higher Class III price also means that MILC payments will only average around \$0.30/cwt for 2004. The net forecast is for a very solid milk price year. Should California milk per cow continue to languish, 2004 could turn into a great price year.

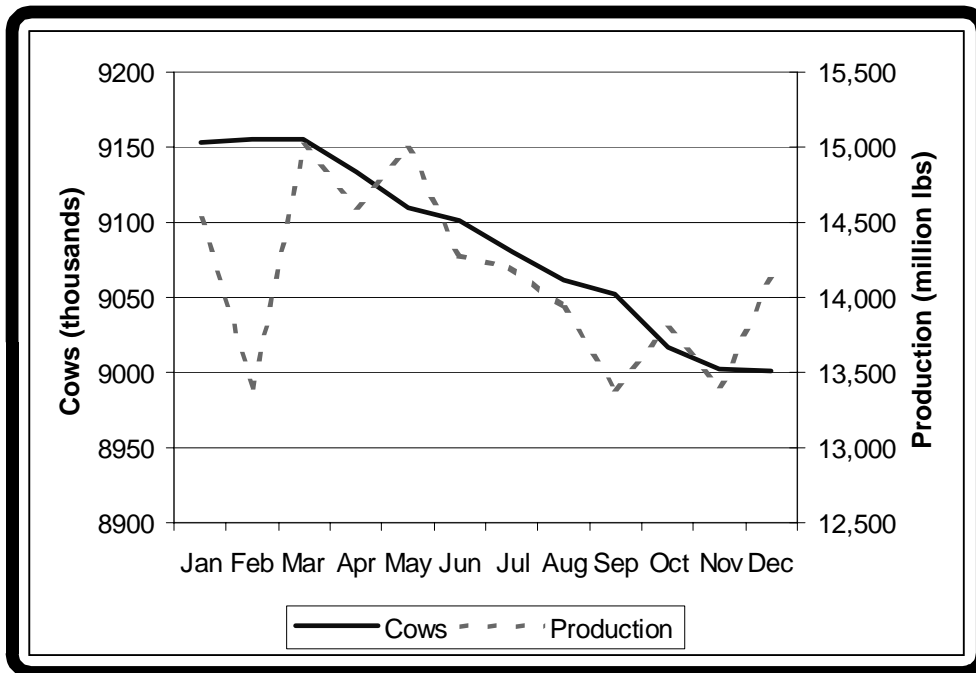


Figure 1. US Milk Cows and Milk Production, 2003

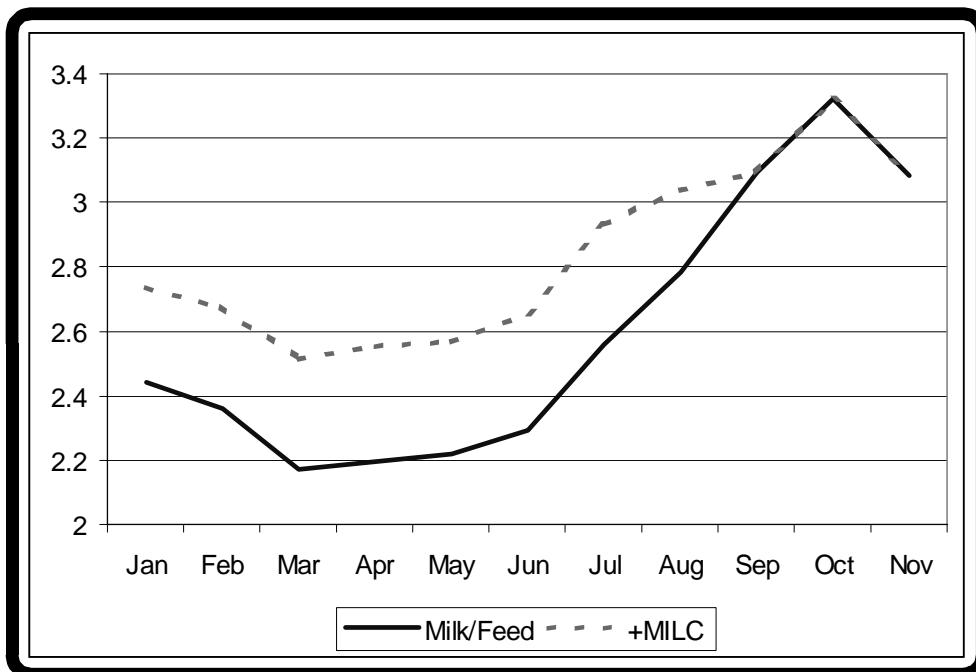


Figure 2. Michigan Milk to Feed Price Ratio, 2003

ISSUES AFFECTING FRUIT PRODUCERS

Suzanne Thornsbury

“If 2003 is to be marked by any kind of trend, it concerns not the forces of nature, but the influence of human behavior.”

“The Trend Towards Value” *FoodNews Review of 2003*

The above quote from *FoodNews* refers to the increasing impacts of international agreements (and disagreements) on the trade of agricultural products in 2003: trends that include impacts on Michigan fruit producers. Approximately one-fourth of the cash receipts from U.S. agricultural products are derived from exports. Since expansion of many domestic markets is largely constrained by population growth rate, the international market has absorbed much of the increase in U.S. agricultural production over the past decade.

Fruit industries play an important role in maintaining a healthy trade balance for U.S. agriculture. In 2002, 13.3 percent of U.S. fruit and nut production entered the export market, compared with 8.7 percent in the early 1980s. Canada is the leading destination for U.S. fresh and processed fruit, followed by Japan, Mexico, Hong Kong, Taiwan, and South Korea. Canada, Japan, the Netherlands and Belgium are the largest outlets for U.S. fruit juice exports. Among fruit products, fresh fruit accounts for the largest share of export value, while wine and fruit juices are the fastest growing sectors in export markets. Global markets are important outlets for Michigan’s fruit industries, with \$79.5 million dollars in fruit (fresh and prepared) export value from the state during 2002.

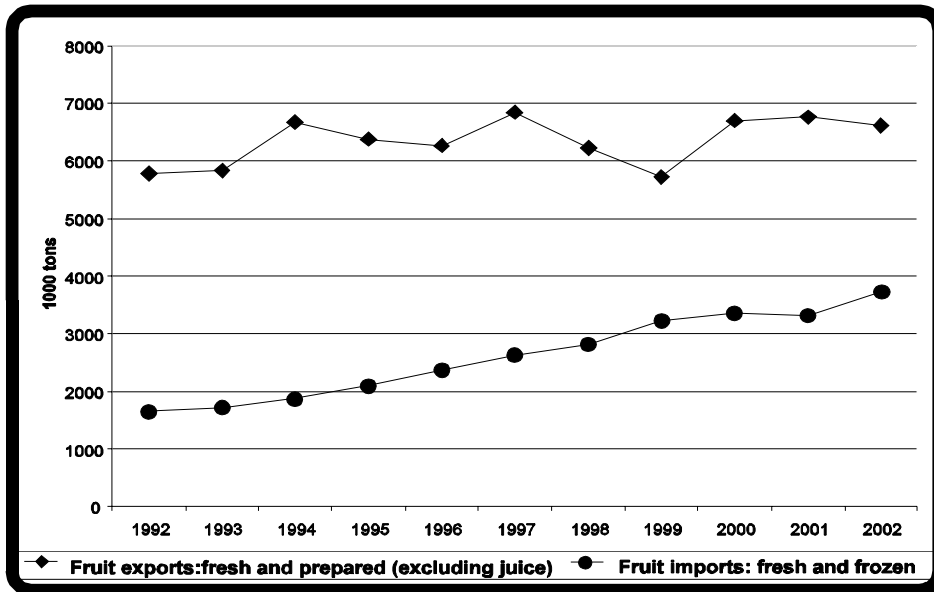


Figure 1. U.S. volume of fruit exports and imports, 1992 – 2002

Source: USDA ERS Fruit and Tree Nuts Situation and Outlook Yearbook, FTS-2003, October 2003.

Although imports have risen since 1992, the gap between exports and imports for U.S. fruit remains positive (Figure 1). On average, agricultural imports now constitute about 9 percent of U.S. food consumption, although the proportion varies greatly by product. Fresh and frozen fruit imports made up about 23 percent of U.S. consumption in 2001 compared with 21 percent in 1999, and 16 percent in 1995 (Table 1). Imported

processed fruits were over 3.0 percent of U.S. consumption in 2001 and 1999 compared with 2.8 percent in 1995. The share of imports is much higher in the juice categories, with 63 percent of apple juice consumption and 41 percent of grape juice consumption imported in 2001.

Table 1. Selected fruit product imports as a share of U.S. consumption

	1995	1999	2001
Fresh & Frozen Fruit	15.6	21.5	23.1
Processed Fruit	2.8	3.2	3.3
Apple Juice	52.1	60.3	63.4
Grape Juice	21.5	55.0	41.1

Source: USDA ERS Outlook Report FAU-79-01, July 2003.

These trade trends are not new. What is new from 2003, is a shift in focus for U.S. trade policy negotiations. In September 2003 World Trade Organization (WTO) negotiations in Cancun broke down over concerns of developing economies being represented at the table. Subsequently U.S. attention has shifted towards completing a number of regional agreements that were already under negotiation, while not abandoning efforts to push trade liberalization at the WTO.

In December 2003, the U.S. signed the U.S.-Central America Free Trade Agreement (CAFTA) with El Salvador, Guatemala, Honduras and Nicaragua. Cost Rica signed the agreement in January 2004 and negotiations are still underway with the Dominican Republic. The CAFTA agreement will reduce tariffs to zero immediately on over half of current U.S. agricultural exports to Central America; other tariffs will be phased out over the next 15 years. The current Costa Rican tariff on U.S. apples is 14 percent.

Completing the CAFTA negotiations took the U.S. closer to the goal of completing a Free Trade Area of the Americas (FTAA) Agreement by January 2005. FTAA is a collaboration among 34 democratic governments in the Americas that would create a \$13 trillion market with 800 million people. The U.S. interest in forming an FTAA comes, in part, from the broad U.S. goal of fostering economic and political stability in the hemisphere and from a desire to secure more open and transparent rules for U.S. trade and investment in the rapidly growing markets of Latin America. The U.S. Trade Representative Office (USTR) has identified Latin America as a region of great promise for U.S. industries; U.S. goods exported to the region grew 137% between 1990 and 2000, compared to 99% growth worldwide.

Estimates are that a FTAA that includes the United States would cause annual U.S. farm income (in 1992 dollars) to be \$180 million higher than it would be otherwise. An area that excludes the United States would cause annual U.S. farm income to be an estimated \$50 million lower. These represent relatively small changes in U.S. farm income, which was around \$50 billion in 1997. Including the United States in FTAA would increase annual U.S. agricultural trade as well, with exports \$580 million higher (1 percent) and imports \$830 million higher (3 percent). If the United States is not included, annual U.S. agricultural exports would decline about \$130 million (0.2 percent), while imports would be \$90 million (0.3 percent) lower [USDA ERS (1998) "International Agriculture and Trade (FTAA)"]

<http://www.ers.usda.gov/publications/so/view.asp?~f=international/wrs-bb/1998/trade/>.

Consistent with a domestic low-price food policy, imports have enabled U.S. consumers to enjoy a more varied diet at a lower cost. The USTR office estimates that joining FTAA would generate an income gain of \$800/year for the average family of four through greater purchasing power and higher incomes.

What are the implications for Michigan fruit industries? Currently the U.S. has a zero tariff on apple and cherry imports from FTAA partners. Although there are most-favored-nation (MFN) tariffs of 0.5 cents/liter tariff on cherry juice, 14.5% tariff on IQF cherries, and 6.9 cents/kg tariff on prepared cherries, the proposed FTAA countries already have preferential agreements that adjust these MFN tariffs to zero. Therefore any competitive adjustments in imports have already been made; any increase in imports resulting from U.S. tariff reduction on these products should have already occurred.

Some countries that will be part of the FTAA currently have tariffs on imports of Michigan fruit products. Tariffs and tariff rates vary by country, and are subject to existing special preference agreements, like Mercosur (Table 2).

Table 2. Tariff rates on selected U.S. exports among some FTAA countries

Country	Fresh Apples	Apple Juice, Brix <20	Apple Juice, Brix > 20	Cherries, prepared or preserved	Juice including Cherries
Argentina	0	0	0	0	0
Brazil	11.5 % Ad Valorem	15.5% Ad Valorem	15.5% Ad Valorem	0	0
Canada	0	0	0	0	0
Chile	7% Ad Valorem*	7% Ad Valorem	7% Ad Valorem	0	0
Costa Rica	14% Ad Valorem**	0	0	14% Ad Valorem**	0
Mexico	0	0	0	0	0
Uruguay	11.5% Ad Valorem**	15.5% Ad Valorem*	15.5% Ad Valorem*	0	0

*Cost Rica sets tariffs on fresh apples by variety.

**These countries indicated special preferences for some exporters. In the case of Costa Rica, preferences seemed to be based on individual agreements with countries including the former Czechoslovakia, Honduras, Palestine, the Gaza Strip region and even individual exporting companies. Uruguay's special preferences were for exporting members of Mercosur.

Source: FTAA website - Tariff database available at http://www.ftaa-alca.org/NGROUPS/NGMADB_e.asp Accessed December 3, 2003.

Of course, policy and market measures other than tariffs also impact trade flow. If, for example, transportation rates are influenced by the volume of overall trade that occurs, there will likely be adjustments in patterns of trade as rates are lowered. Non-tariff policies include measures such as sanitary and phytosanitary (SPS) concerns which can limit trade and which are particularly prevalent in markets for fresh products (including those for fruit). For example, the U.S. has a long-standing dispute with Mexico over SPS restrictions on apple exports. Current indications are that the FTAA would adopt SPS guidelines based on disciplines already enacted by the World Trade Organization.

MICHIGAN FARM INCOME OUTLOOK FOR 2004

Jake Ferris

Gross and net cash farm income in Michigan recovered in 2003 from the extremely low level of 2002. In 2002, net cash farm income was \$680 million, just over half of the level of the year before, mostly due to sharp declines in milk, cattle and hog prices. Higher prices on milk, cattle, hogs and eggs in 2003 brought livestock receipts up to levels above the average of the past five years.

Gross cash income from marketings of crops in calendar 2003 increased 12 percent over the previous year. This can be traced to larger corn crops, including the 2002 crop marketed in 2003 plus the fall sales of the 2003 crop. The large 2003 wheat crop more than offset somewhat lower prices than the year before while, in contrast, higher prices more than offset the small 2003 soybean crop. The 2003 dry bean crop was also small but sales of the 2002 crop in 2003 and higher prices pushed up calendar year receipts. Cash income from fruit in 2003 was substantially above 2002 which was a disastrous year for cherries. Also, vegetables grossed more in 2003 than in 2002, an above average year.

Government Programs

Government payments to Michigan farmers dropped almost in half in 2002 as supplemental funding was phased out and higher crop prices sharply cut loan deficiency payments. Higher prices also cut out counter-cyclical payments on the 2002 crops of corn, soybeans and wheat. Even though the Secretary of Agriculture announced advanced counter-cyclical payments on the 2003 corn and wheat crops, producer will likely have to refund these payments as projected prices on these crops will be above the trigger levels. Neither will loan deficiency payments be needed. For calendar 2003, however, substantial increases in crop disaster payments more than offset the drop in the counter-cyclical and loan deficiency payments.

Dairy incomes were enhanced by \$37 million in 2002 by the Milk Income Loss Contract program as the Boston Class I price remained below the \$16.94 per cwt. target price throughout the year. The difference averaged \$2.68 per cwt. Dairy farmers are paid 45 percent of the difference for each month up to a maximum of 2.4 million pounds produced and marketed per fiscal year. Something over 60 percent of Michigan's milk output is eligible for these payments.

Commodity Outlook for 2004

As shown in Table 1, cash receipts from marketings of livestock in 2004 are expected to be maintained at the higher level reached in 2003 with some easing in cattle prices and receipts. The large 2003 corn crop marketed in 2004 and higher price forecasts for the fall compared to the fall of 2003 should give a further boost to corn income in calendar 2004. Behind the projected increase in soybean receipts is the combination of higher prices for old crop sales and a much larger new crop. The \$7 plus prices on the 2003 crop should encourage some expansion in acreage, and with normal weather, yields should be about 10 bushels per acre above the 2003 crop yield of 27 bushels. On the other hand, Michigan farmers seeded 12 percent fewer acres to wheat this past fall which, in combination with lower prices, will likely reduce sales.

Another small dry bean crop is in prospect for 2004 as acreage drifts lower and will likely bring down calendar year receipts in 2004 in spite of higher prices. While beet sugar prices in the fall of 2003 were about 12 percent below the year before, higher sucrose content should help maintain payments to growers for a crop that was 6 percent larger than the year before. Little change is expected in potato sales and hay income should

increase if yields are in line with trends. With normal weather, vegetable receipts may ease off in 2004 versus 2003 and fruit income will be down from the relatively strong performance in 2003. The upward trend in cash receipts from ornamentals should continue as the economy improves in 2004.

Farm Income Outlook

The outlook for cash farm income in Michigan is detailed the Table 2. With normal weather in Michigan and elsewhere, crop sales should increase modestly in 2004 compared to 2003 and livestock should gross about the same as the higher level reached in 2003. Government payments will likely remain below the levels of 1999 to 2001 as market prices will continue to eliminate the counter-cyclical and loan deficiency payments under the 2002 farm bill. Conservation programs will have increased funding and the milk income loss payments will remain near to 2003 levels. Likely, ad hoc emergency funding in 2004 will be less than in 2003 unless special circumstances develop beyond the control of farmers.

Gross cash farm income with allowance for the rental value of farm dwellings (because cash costs include the home as a part of the farm business) is projected to be about the same in 2004 as in 2003 (Table 2). Cash expenses will continue to creep up leaving net cash income marginally lower in 2004 compared to 2003.

**Table 1. Cash Receipts from Farm Marketings in Michigan,
Calendar Years 2002 Actual, 2003 Estimated, and 2004 Forecast***

Enterprise	2002 Mil \$	2003 Mil \$	2004 Mil \$
<u>Livestock</u>			
Dairy	712	762	775
Cattle and calves	204	261	237
Hogs	166	182	184
Eggs	51	90	92
Turkeys	63	63	62
Other	56	56	56
Total Livestock	1,260	1,412	1,406
<u>Field Crops, Vegetables and Other</u>			
Corn	365	435	483
Soybeans	365	381	448
Wheat	104	131	116
Dry Beans	49	64	53
Sugarbeets	111	116	112
Potatoes	93	89	92
Hay	55	61	69
Vegetables	252	265	258
Other	34	34	34
Total	1,428	1,576	1,665
<u>Fruit</u>	158	267	225
<u>Greenhouse/Nursery</u>	545	550	555
Total Crops	2,130	2,393	2,445
GRAND TOTAL	3,390	3,805	3,851

* Data for 2002 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,
1998-2001 Actual, 2003 Estimated, and 2004 Forecast***

Item	1998	1999	2000	2001	2002	2003	2004
	<u>Million \$</u>						
Gross Cash Income							
Farm Marketings							
Crops	2,181	2,133	1,987	1,980	2,130	2,393	2,445
Livestock	1,320	1,328	1,334	1,489	1,260	1,412	1,406
Government Payments	208	389	381	353	188	260	231
Farm Related Income	142	133	123	181	126	126	126
Dwelling Rental Value	292	338	345	372	373	373	373
Total	4,143	4,321	4,170	4,375	4,077	4,564	4,581
Cash Expenses	3,220	3,152	3,299	3,205	3,397	3,501	3,616
Net Cash Income**	923	1,169	871	1,170	680	1063	965

* Data for 1998 to 2002 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.