The Outlook for Michigan Agriculture 2024

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Introduction

This analysis outlines the outlook for agriculture with a particular emphasis on commodities of particular importance to Michigan. The first topic covered is general economic conditions, which are important to estimate inflation, interest rates, unemployment and other macroeconomic factors that impact the demand for food and the cost of production. The second topic covered is the outlook for inputs. This is important to assess the cost of production for many producers. The third topic covered is the outlook for several agricultural commodities produced in Michigan. This includes the major field crops, livestock, and milk production.

Farm income is expected to decline in 2024. Nationwide, net farm income is estimated to be $116.1 billion in 2024, a decrease of $43.4 billion or 27.2 percent from 2023 (USDA ERS). The decline in farm income is primarily due to a reduction in prices. A decline in direct government payments will also reduce net farm income (USDA ERS). Production costs overall are estimated to rise by $16.7 billion or 3.8 percent. Labor and livestock prices are estimated to increase significantly, and seed and fertilizer prices are estimated to increase by more than four percent in 2024 (USDA ERS). While the USDA estimates that interest and fuel expenses are expected to decline there is a great deal of uncertainty with respect to these items.

General Economic Conditions and Trade

Assessing future economic conditions is difficult. Core inflation, the rate of inflation less price changes in food and energy prices, has declined but remains above the target set by the Federal Reserve. This fact coupled with the fact that unemployment remains low and economic growth remains relatively strong indicates that there may be few, if any, reductions in interest rates this year. Food price inflation is expected to moderate in 2024. Prices for all food are estimated to rise 1.3 percent in 2024; food prices for food consumed at home are actually estimated to decline by 0.4 percent. This is likely due to lower commodity prices. The prices paid for food away from home are expected to rise by 4.7 percent. This is due to higher wages for restaurant staff and high rents paid by restaurants (USDA, ERS).

Globally, the world GDP is estimated to increase by 2.7 percent (USDA). Lower income and lower-middle income countries are expected to grow the fastest (USDA), which should be positive for U.S. farm exports. Total agricultural exports are estimated to be $169.5 billion, a decline of $9.2 billion or 5.1 percent. Some of this decline is due to lower crop prices. In volume terms exports are likely to be slightly higher in 2024, compared to 2023. The U.S. is facing several issues that make export expansion difficult.

The value of the U.S. dollar remains high relative to many countries. This makes U.S. exports more expensive relative to other countries' exports. Brazil and other countries continue to increase their exports. Despite the war, both Ukraine and Russia have successfully resumed exporting agricultural commodities, especially wheat, oilseeds, and feedgrains. A particular threat is the potential expansion of exports from Argentina. A new more market oriented government was recently elected which may reduce restrictions on exports from Argentina.

Shipping rates have risen dramatically due to a drought in Panama which has impacted shipping through the Panama Canal, and the attacks on shipping in the Red Sea. Shipping rates from East Asia to the Mediterranean rose from less than $2,000 per container in December 2023 to almost $6,000 per container in February in 2024. These rates have declined somewhat but are still very high (LaRocco). These rates may improve the competitiveness of crops shipped from Great Lakes ports. Strong economic growth in some developing economies may also boost exports.

As is always the case, weather will play a major role in determining prices and farm income. As a result, these estimates are likely to change over time. These figures are designed to give a general idea of what can be expected this year assuming normal temperatures and precipitation.

Inputs

The outlook for inputs is mixed, although the costs for the major field crops appear to be lower this year than last year. According to the Energy Information Agency the price of diesel in the Midwest is $3.96 a gallon; a decline of 15.9 cents a gallon from 2023. Provided there are no international disruptions, the price of diesel is likely to continue either decline or remain steady.

Interest rates remain essentially unchanged from a year ago. According to the Federal Reserve Bank of Chicago, the interest rate for new operating loans in the region is 8.51 percent, and the interest rate on real estate loans is 7.60 percent (Oppedahl and Kepner).

Table 1 shows the estimated cost of production for a typical crop farm in Indiana. The actual results for an individual farm in Michigan will be different, but it does provide a general idea of the cost of production for the major field crops.

Table 1: Per Acre Variable Costs of Production: Dollars per Acre

	Corn	Soybeans	Wheat
Fertilizer	190	76	119
Seed	124	74	44
Pesticides	105	66	40
Dryer Fuel	38	N/A	N/A
Fuel	24	15	15
Machinery Repairs	45	40	40
Hauling	20	6	8
Interest	31	17	15
Insurance/Misc.	48	41	9
Total	**625**	**335**	**290**

Source: Langemeier

Table 1 shows that fertilizer prices have declined considerably. Last year estimated fertilizer costs for corn were in excess of $240 an acre. Anhydrous ammonia prices are down about 40 percent (USDA). Seed and pesticide prices are essentially unchanged. The cost of fuel is estimated to be slightly lower. Machinery repairs are estimated to be higher, perhaps due to higher wages for technicians. Interest expenses are estimated to be slightly lower, but unless inflation declines, interest rates will remain where they are. It is important to note that table 1 does not include all cost items. Land rent, labor, property taxes, and returns to management are four items that are not considered in table 1.

Nationwide, cropland values increased by 14.3 percent and pastureland values increased by 11.5 percent (Penson and Shelton). These increases will likely be reflected in higher rental rates. Cash rents in Michigan averaged $144 an acre in 2022 (Birkey).

One very important input that tends to be overlooked is labor. Labor shortages will continue to adversely impact agriculture. The USDA estimates that labor costs will rise 7.4 percent. This will adversely impact fruit and vegetable producers. The lack of labor may limit the growth of the dairy industry. Labor shortages exist throughout the supply chain and have particularly impacted transportation. This will increase the cost of shipping agricultural products. A shortage of labor has also impacted the potential for expanded food processing. This, in turn, could limit expanded farm output. This is especially true for meat processing.

Land prices continue to rise. In 2023 cropland in Michigan averaged $5,900 an acre, an increase of 11.3 percent from 2022. Cash rents were up 2.8 percent in 2023, to an average of $148 an acre. Despite falling farm incomes, the demand for land will support land prices and cash rents. High land prices have kept farm balance sheets in relatively good condition.

Wheat

U.S. wheat acreage is estimated to be 47.0 million acres, a decline of 2.6 million acres or 5.2 percent from the previous year (USDA). Total production is forecast to be 1.90 billion bushels, an increase of 4.8 percent (USDA). Virtually all the wheat produced in the U.S. is used either for food or exports. Wheat is not commonly use as feed in the U.S. The estimated price for wheat is $6.00, a reduction of $1.20 a bushel or 20 percent from the previous year.

Wheat exports are forecast to be $5.9 billion which is virtually unchanged from last year (Kenner et al). In volume terms, exports are estimated to be 775 million bushels which represents 40.8 percent of U.S. production. This would be an increase of 50 million bushels from 2023/24 (USDA).

Corn

The USDA estimates that that 91.0 million acres of corn will be planted this year a decline of 2.6 million acres from 2023. Output is estimated to be 15.040 billion bushels, a decline of 300 million bushels (USDA). Including carryover, total supply is estimated to be 17.237 billion bushels. Food, seed, and industrial use is estimated to be 6.805 billion bushels, corn used for ethanol is estimated to be 5.400 billion bushels, and feed and residual use is forecast to be 5.750 billion bushels (USDA). The USDA estimates that the price of corn will be $4.40 a bushel in 2024, a decline of 40 cents from 2023 (USDA). This would represent a decline of $2.14 from 2022 (USDA).

U.S. corn exports are estimated to be 2.150 billion bushels Exports would represent 14.3 percent of production in 2024. Corn exports are forecasted to be $13.0 billion (Kenner et al) Ethanol exports are forecast to be $3.6 billion which is essentially unchanged from 2023; however, on a volume basis, ethanol exports could reach an all-time high of 1.6 billion gallons (Kenner et al). High volumes offset price declines (Kenner et al). Global demand for ethanol remains strong.

Soybeans

Soybean acreage planted is estimated to be 87.5 million acres which would be an increase of 3.9 million acres (USDA). Total production is estimated to be 4.505 billion bushels (USDA). Total soybean crush is forecast to be 2.40 billion bushels which would be a record (USDA). Soybean oil used for biofuel is estimated to be 14.00 billion pounds which would be a 7.7 percent increase (USDA). The average price of soybeans is forecast to be $11.20 a bushel in the 2024/25 crop year a decline of $1.45 a bushel, or 11.5 percent (USDA). The price of soybean meal is forecast to be $320 a ton down from $380 a ton (USDA). The price of soybean meal is estimated to be 45 cents a pound a reduction of 6 cents from 2023/24 (USDA).

Soybean exports are estimated to be $25.0 billion which is a reduction of $1.0 billion from the previous year (Kenner et al). Soybean exports are estimated to be 1.875 billion bushels up slightly from the previous year, and soybean meal exports are forecast to be 16.50 billion short tons, which would be a record, and an increase of 1.20 billion tons (USDA). Domestic demand for soybean oil has increased, primarily due to an increased interest in biobased fuels, and as a result domestic crush has increased leading to more soybean meal exports to other countries. Biodiesel now accounts for almost half the domestic use of soybean oil. Conversely, this increased domestic utilization has reduced soybean oil exports. Soybean oil exports are estimated to be 350 million pounds, an increase of 50 million or 14.3 percent; however, on a dollar basis, the value of soybean oil exports are unchanged at $200 million.

About 150 million gallons of biodiesel is produced a year (Meyer), primarily from soybean oil. This has kept the price of soybean oil high. The price of soybean oil is estimated to be 60 cents a pound in 2023/24 down 8 cents from 2022/23 and 13 cents a pound in 2021/22 (USDA).

Dairy

The price of milk is expected to increase in 2024. The all milk price is expected to be $20.95 a cwt., up about 50 cents a cwt. from 2023 (McConnell). The price will be below the 2022 price, although lower feed costs should improve the profitability of dairy farming. Class IV prices are estimated to be $20.20 a cwt. up from $19.12 in 2023, Class III prices are expected to rise slightly (McConnell). Strong foreign demand for butter and Nonfat Dry Milk has supported milk prices in the U.S. Reduced output in Europe, Australia and New Zealand has increased the demand for U.S. dairy products.

The number of dairy cows declined 0.4 percent in 2023. Milk production increased by 0.7 percent due to higher output per cow. Dairy farmers will also benefit from higher beef prices for cull cows and dairy steers.

Beef

The number of beef cows is at the lowest level since 1961, and the number of cattle and calves is the lowest since 1951 (Shagam). The number of cattle being slaughtered is up slightly (Shagam), but eventually the number of cattle going to slaughter will decline as producers are reducing the number of cows. The primary driver of the decline in beef cattle numbers has been a drought in major cattle producing states which has reduced access to forage and higher feed costs. Regions impacted by drought have declined since the fall of 2023, but grass fires in northern Texas and part of Oklahoma may restrict access to pasture in one of the largest cattle producing areas in the country. The price of cattle in 202

The price for fed steers is estimated to be $180 a cwt. in major cattle producing regions which would be a record (Shagam). Feeder cattle prices are forecast to be $248.50 a cwt. for 750-800 pounds steers; an increase of almost $30 a cwt. from 2023. Profitability will be further enhanced because of lower corn and soybean meal prices.

Beef exports in 2024 are expected to fall to 2.79 billion pounds in 2024 (Shagam). Higher beef prices in the U.S. coupled with increased competition from other beef exporting countries will put downward pressure on U.S. exports. Cattle imports are expected to be 2.05 million head, mostly coming from Mexico and Canada. This will be up slightly from 2023 (Shagam). Beef imports are estimated to be at an all time high of 4.13 billion pounds; an 11 percent increase from 2023 (Shagam).

Pork

Total pork production is forecast to increase slightly in 2024; pork output is estimated to be in the range of 27.9 billion pounds which will be an increase of approximately 2.2 percent from 2023 (Haley). Strong beef prices will support the demand for pork in the U.S.

Pork exports are forecasted to be 7.13 billion pounds in 2024, up about 4.6 percent from 2023. Latin America, and Mexico in particular have become more important markets for U.S. pork (Haley). Exports to China will continue to decline as China recovers from the Swine Fever outbreak.

Nationwide, the price of hogs is forecast to be $67.50 a cwt. This would be an increase of about 3.1 percent compared to 2023 (Haley). Slightly higher prices coupled with lower feed costs will improve the profitability of hog production after a difficult 2023.

Poultry

Egg prices will continue to decline in 2024 as the number of layers continues to rebound after the Avian Influenza outbreak. Output is estimated to be 7.99 million dozen, an increase of 1.6 percent from 2023 (Grossen). The price in 2024 is expected to be $1.80 a dozen; a decline of 6.4 percent (Grossen).

However, it should be noted that prices in the spring and summer of 2024 are expected to be higher than the price in the spring and summer of 2023 (Grossen). Approximately, 241 million dozen eggs are forecasted to be exported; this represents 2.6 percent of U.S. egg production (Grossen).

National broiler production is forecast to be 46.87 billion pounds, an increase of 1.1 percent from 2023 (Grossen). Broiler output has been steady since 2022. Broiler exports are anticipated to be 7.17 billion pounds, a reduction of 1.4 percent. A stronger value of the dollar may restrict broiler exports.

The turkey industry continues to feel the effects of Avian Influenza. Output is forecasted to be 5.37 billion pounds, a decline of 1.6 percent (Grossen). The price is forecasted to be around $1.07 per pound, a decline of 31.8 cents or 22.7 percent (Shagam). While prices are comparatively low, they are trending up from December lows (Shagam).. The turkey industry is facing more stress than most other animal agricultural industries.

Turkey exports are estimated to be 520 million pounds, an increase of 6.4 percent. Estimated turkey exports would be 9.7 percent of all turkey production in the U.S. (Grossen).

Summary

Producers of major field crops will face some difficulty in 2024. This is especially true for farmers who rent land. While there has been some reduction in some input costs it is not likely to offset lower crop prices. The situation is somewhat better for producers of livestock products, higher prices coupled with lower feed prices will improve the profitability of many livestock producers, especially beef producers.

Potential sources of risk are comparatively high interest rates and the strong value of the dollar which may put downward pressure on exports. Interest rates are unlikely to decline if inflation remains above the Fed's target. Potential increases in exports from Russia and Ukraine could also put downward pressure on commodity prices.

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