

Indiana Agriculture

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Indiana agriculture is going to enjoy the best financial times since the 1970s but will experience more uncertainty in 2008. The excitement of 2007—with the rapid growth of the biofuels sector, strong export demand, and record wheat prices due to very tight worldwide wheat supplies—is expected to continue in 2008. Going forward, the combination of growth in biofuels and strong export demand

means high Indiana farm incomes and increasing farmland values.

Let's start by discussing the developments in the biofuels sector. As of October 2007, there are six operating ethanol plants in Indiana at Clymers, Linden, Marion, Portland, Rensselaer, and South Bend; these plants utilize about 169 million bushels of corn. There are an additional five plants under construction that will start operating in 2008 at Alexandria,

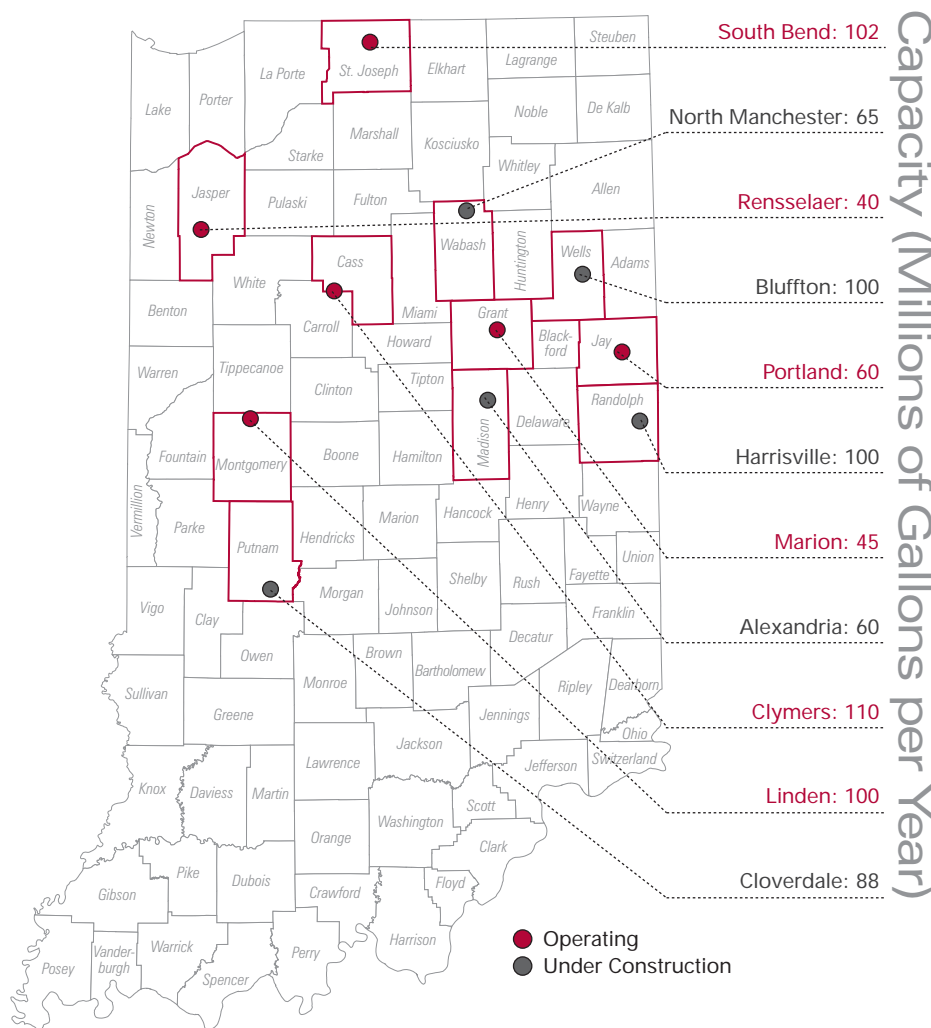
Bluffton, Cloverdale, Harrisville, and North Manchester (see **Figure 1**). Once these plants are on line, ethanol production in Indiana will utilize 300 million bushels of corn (equivalent to 30 percent of Indiana's 2007 corn production—up from just 4 percent of corn production in 2005). This new usage for corn is happening throughout the Corn Belt and is dramatically altering Indiana's agriculture.

Indiana also has a growing biodiesel industry. The largest facility is the new Louis Dreyfus, Inc. soybean crushing facility at Claypool, which will process 50 million bushels of soybeans per year, equal to 25 percent of Indiana's 2007 soybean production.

While the biofuels sector has grown dramatically in 2007 and will continue to grow in 2008, future growth will slow considerably due to a reduction in ethanol margins. Over the last year, the price of ethanol has fallen from around \$2.50 per gallon in January to \$1.58 per gallon as of October 15, 2007. At the same time, the price of corn (the primary cost of producing ethanol) has remained above \$3.50 per bushel. These falling ethanol prices and sustained corn prices are causing the ethanol industry to experience a sharp reduction in profit margins.

The biggest change in the ethanol industry is the decoupling of the price of ethanol from the price of crude oil. Even as the price of ethanol has declined almost \$1 per gallon, the price of crude oil has increased from around \$60 per barrel to over \$90 per barrel. There are two reasons for this price decoupling: (1) the ethanol industry now produces enough ethanol to satisfy the oxygenate demand, and (2) the industry is facing capacity constraints in both blending and transportation

Figure 1
Ethanol Plant Locations and Plant Size, 2007



Source: Professor Chris Hurt, Purdue University, November 2007

Indiana

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The outlook for Indiana's economy in the year ahead presents a mixed picture, not unlike that of the nation. We should expect more ups than downs, but unsettled economic forces at work beyond our borders make it difficult to hit this moving forecast target. Let's take a closer look at several key indicators of Indiana's economic health.

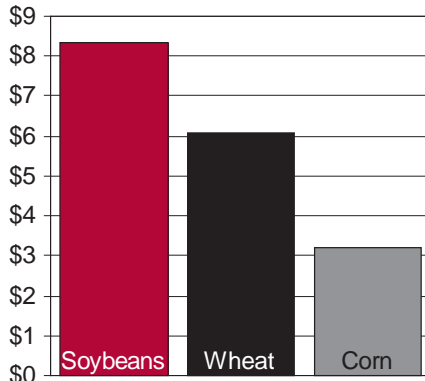
Jobs: Slowly but Steadily Improving

After a rough start with two months of job losses, Indiana employment in 2007 has resumed the long-term recovery trend that it has generally followed since July 2003, when it reached its lowest point of the decade. By late summer, total payroll jobs had climbed to within just 13,000 of their all-time high, but September's count gave up some of that momentum. Even with that slippage, the state had 18,000 more payroll jobs than it did a year earlier. The general upward employment trend, evident in **Figure 1**, should keep employment rising by approximately 15,000 more jobs in 2008.

However, not all sectors will share this growth equally. The manufacturing sector in particular is still undergoing a long-term employment decline in our state, just as it is throughout the nation. We expect Indiana will have about 11,000 fewer factory jobs at the end of 2007 than it did at the start, but the rate of shrinkage should abate considerably in 2008, perhaps even leveling off once some large new factory projects come on line. Additionally, Indiana remains the nation's most manufacturing-intensive state: the sector accounts for 18.9 percent of all our payroll jobs.

Meanwhile, construction has grown substantially in 2007, and

Figure 2
Projected Prices for Soybeans, Wheat, and Corn, 2007–2008



Source: WASDE

infrastructure that will take a year or more to correct.

In addition to the biofuels sector, strong export demand and extremely tight worldwide wheat supplies are resulting in very high commodity prices. In the case of wheat, world stocks are the lowest since 1975–76 and U.S. wheat stocks are even tighter, at the lowest since 1948–49. As a result, the October 12, 2007, World Agricultural Supply and Demand Estimates (WASDE) projects that 2007–08 U.S. wheat prices will be around \$6.10 (see **Figure 2**). These prices for wheat are well above the 1995–96 record of \$4.55 per bushel. In the case of corn, exports are at their highest level in eighteen years. In addition, with all the new ethanol plants coming on line, the WASDE report projects that corn prices will be around \$3.20 per bushel, higher than the 2007 price of \$3.04. In the case of soybeans, with the sharp acreage reduction in 2007, supplies will be tight; the WASDE report

projects that soybean prices will be around \$8.35 in 2008, well above the 2007 price of \$6.43. As a result of these high commodity prices, Purdue University estimates that Indiana net farm income will be around \$2.2 billion in both 2007 and 2008, well above the 1997–2006 average of \$1.2 billion. With these near-record farm incomes, the biggest challenge facing Indiana producers will be to manage increasing input costs.

Looking to 2008, the high commodity grain price, with its large impact on the returns to crop production, can be expected to increase the value of farmland. Farmland value also depends on factors including long-term interest rates, government price support payments, and real estate taxes. Given the current price levels for corn, soybeans, and wheat, prices continue to be well above the level where government price support payments would be triggered, reducing the influence of government programs. Long-term interest rates can be expected to increase, which would put downward pressure on land prices, but the rate increase is happening slowly. Overall, the biofuels and export boom increased the value of average quality Indiana farmland in 2007 by 17 percent and is expected to increase an additional 5 percent to 15 percent in 2008 according to the Purdue Land Value Survey.¹ ■

Note

1. The Purdue Land Value Survey is available at www.agecon.purdue.edu/extension/pubs/paer/2007/august/paer0807.pdf.

More information about the Indiana agricultural outlook can be found at: www.agecon.purdue.edu/extension/pubs/paer/2007/august/paer0807.pdf