

'GREEN' ACRES

Agriculture Reaps Big Economic Benefits

By Symone C. Skrzycki

We make things in Indiana. But we also grow things – lots of things – like corn, soybeans and various forms of livestock. Manufacturing may receive most of the attention today, but farming also significantly contributes to the economy.

Agricultural industries in Indiana generated \$37.9 billion in 2011, according to *Agriculture's Bounty: The Economic Contribution of Agriculture*. That figure includes \$25.4 billion directly (encompassing the production of crops, livestock and wood – as well as the manufacture of processed agricultural goods) and \$12.5 billion through ripple effects (purchased inputs from suppliers and agricultural employee spending).

The report, published by the Indiana Business Research Center (IBRC) at the Indiana University Kelley School of Business, focused on processing and manufacturing industries with at least 7% of their production inputs coming directly from Hoosier farms or forests. Some industries below that threshold: snack food manufacturing, seasoning and dressing manufacturing, and paper mills.

“One thing that surprised me was the

overall estimated employment within the agriculture industry; it's around 190,000,” remarks Tanya Hall, economic research analyst at the IBRC and primary author of the study. “I don't think people realize how big of a contribution agriculture can have on the state.”

Cultivating talent is crucial to maximizing agriculture's economic impact.

“It's all about having the right human talent to run a farm,” emphasizes Kip Tom, president and CEO of Tom Farms, LLC in Leesburg (Kosciusko County). “You have to be focused on your growth strategies, succession planning, do they have the right leadership skills.”

Family-owned Tom Farms is a global production sales and service operation, specializing in seed corn, corn and soybeans. It's one of the largest seed producers for Monsanto, a global leader in agricultural research, development and productivity.

“Human talent is a very important component to all size farms. If a small farm wants to continue to get bigger, they'll have to embrace business principles.”

BizVoice[®] takes a closer look at Indiana's agricultural landscape – the trends, challenges and opportunities for growth.

Fertile ground

Indiana is the nation's eighth largest

agricultural exporter. Its strength in corn and soybean production is only part of the big picture.

“The state is well positioned to be a leader in diverse agriculture businesses,” Hall observes. “It's much more than just raising cows (or other livestock). It's much more than raising corn and soybeans. It's very diverse, and it has the potential to keep growing.”

Chris Hurt, agricultural economist at Purdue University's College of Agriculture, agrees.

“Certainly the production sector is important, but it's the whole set of inputs – seed fertilizer, working with land conservation, working with lenders and also, once raw material leaves the farm, how it's further processed,” he stresses. “That whole value-added area is where the economic growth opportunities continue to lie.”

He cites ethanol as a prime example.

“Corn is (nationally) providing about 10% of the fuel that goes into the gas tanks of trucks and automobiles. Indiana is one of the key players in that. We produce more than a billion gallons of ethanol. It started back in the 1970s. We had one plant up until about 2006 and now we have about 13. It's really mushroomed.”

Cultivian Ventures, headquartered in Indiana with a second office in Chicago, invests in high-tech opportunities involving the food and agricultural sectors. Managing partner Ron Meeusen says Indiana has a wealth of unique prospects.

“It's all across the map,” he declares. “There are technologies doing everything from screening manure and waste from farms and converting it to energy or fertilizer ... several plays around the state going on for animal health.”

Global positioning systems (GPS), for instance, allow farmers to remotely track the current condition of sick animals and receive alerts via iPhone.

Agriculture's Bounty points out that approximately 83% of Indiana's acres are devoted to either farms or forests. The impact of the state's hardwood industry, Meeusen contends, often is underestimated.

“That (industry) spawns a series of things from furniture manufacturing on down the line,” he comments. “Indiana has some of the highest quality hardwoods around. Indiana's forests are hardwood. It's oak. It's walnut. It's black walnut. That's a real strength for Indiana.”

Agriculture Impact (Top 10 by Total Employment)			
Description	Total Employment	Total Output (\$ million)	Total Value Added (\$ million)
Grain Farming	54,850	\$8,879	\$3,212
Oilseed Farming	29,290	\$4,321	\$2,104
Hogs and Other Animal Production	16,930	\$1,568	\$782
Wet Corn Milling	13,140	\$4,431	\$1,257
Animal (Except Poultry) Slaughtering, Rendering and Processing	12,940	\$3,432	\$763
Support Activities for Agriculture and Forestry	9,120	\$579	\$402
Poultry Processing	5,440	\$1,006	\$298
All Other Food Manufacturing	4,980	\$1,064	\$415
Soybean and Other Oilseed Processing	4,670	\$3,104	\$439
Fluid Milk and Butter Manufacturing	4,460	\$1,333	\$374
TOTAL (32 Industries)	188,890	\$37,893	\$12,837

Source: IBRC, using data from the United States Department of Agriculture and the IMPLAN (IMpact analysis for PLANning) economic modeling software

Farming Facts

	Indiana			U.S.		
	2007	2012	Change %	2007	2012	Change %
Number of farms	60,938	58,695	-3.70%	2,204,792	2,109,363	-4.30%
Farm size (acres)	242	251	3.70%	418	434	3.80%
Farm operator age (under 25)	396	315	-20.50%	11,878	10,719	-9.80%
Farm operator age (55-64)	15,003	16,433	9.50%	596,306	608,060	2.00%

Information is based on United States Department of Agriculture and 2012 Census of Agriculture data



Small farms plowing ahead

The Census of Agriculture, released by the U.S. Department of Agriculture, is conducted every five years. Among 2012 findings: 87.2% of all Hoosier farms were under 500 acres. There was a 3.7% decline, however, in the number of total Indiana farms and a movement to larger operations.

“Indiana is at a point where about 10% of the largest farms are producing approximately 80% of all the state’s ag impact,” Hurt reveals. “There are massive amounts of science that go into the research and development of products they have. One of the consequences is that this technology is costly and to employ that technology you have to be of a sufficient size.”

Small farms, however, are embracing ways to remain competitive. One strategy is to explore niches through, for example, agritourism or farmers’ markets.

Hurt notes that there has been a boost in grape and wine production: “That can be done with relatively small acreage, yet generate a lot of income.”

Organic farming, which doesn’t use artificial chemicals or fertilizers, also is growing.

“Organic farms usually use animal manures for fertilizers – no artificial chemicals or fertilizers. We can’t get that much animal manure on a great big farm. When you don’t use chemicals, it generally implies you’ll have more individual attention to things like vegetable crops. Organic farming is an area people will pay a premium for.”

Lay of the land

Crops accounted for 67% of the total value of all agricultural products from farming in Indiana, according to the 2012 agricultural census. Animal agriculture represented 33%.

“The big demand surge between 2007 and 2012 was in two areas,”

AquaSpy’s real-time web application uses remote soil moisture monitors to help growers gauge irrigation needs. An investment by Cultivian Ventures helped bring the company from Australia to Indianapolis. Leaders from the company’s manufacturing operation in California are shown.

Hurt explains. “One was corn use for ethanol. Most of that industry was growing due to federal government renewable fuel standards. The second big demand growth factor was related to Chinese income growth.”

Rising incomes in developing countries often lead to increased demand for animal protein – things like meat, milk and eggs.

“The animal sector’s biggest cost is feed, so it pushed up the cost of raising animal products,” Hurt shares. “It actually caused severe financial losses for the animal sector as a general statement over those five years. Now we’ve built up our production of these crops in the United States and have moderated prices from extreme highs to moderate, and will see a recovery in the animal sector.”

He predicts expansion to largely involve milk production, pork production and turkeys.

Tom brings the focus back to people.

“Let’s bring in some of those great minds that graduate from our universities and create innovation that adds value to the industry,” he concludes.

RESOURCES: Tanya Hall, Indiana Business Research Center, at www.ibrc.indiana.edu | Chris Hurt, Purdue University’s College of Agriculture, at www.agriculture.purdue.edu | Ron Meeusen, Cultivian Ventures, at www.cultivian.com | Kip Tom, Tom Farms, at www.tomfarms.com