

# A Thinking Man's Game

## Tom Farms Stays Ahead of the Curve

By Matt L. Ottinger

**A**t the turn of the 20th century, nearly half of the country's workforce reported to farms each morning to start the workday. Now, more than 100 years later, Plunkett Research reports only 2.5% of the nation works on farms. "This has all happened because of mechanization," explains Kip Tom, president of Tom Farms LLC in Leesburg in Kosciusko County. "Now it's more about manufacturing with more automated equipment."

It's this equipment that allows Tom and his company to be the largest American seed producer for Monsanto, a global leader in agricultural research, development and productivity. On 16,000 acres of Indiana soil in six counties and its 4,000 acres in Argentina, Tom Farms also produces commodity crops and soybeans (and is now working to cultivate specific genetics for specific end uses).

### Futuristic farming

"We are one of the largest genetic integrators for Monsanto in supporting their seed production needs," Tom offers. "In our case, Monsanto provides us with the intellectual property, and we manage the production of it throughout the growing season and then deliver it back to them for further processing and conditioning before it is distributed to customers around the globe."

He adds that Monsanto is investing at the rate of \$3 million a day in research to develop new traits to reduce the use of millions of tons of pesticides, which will improve the environment and reduce exposure to producers and consumers.

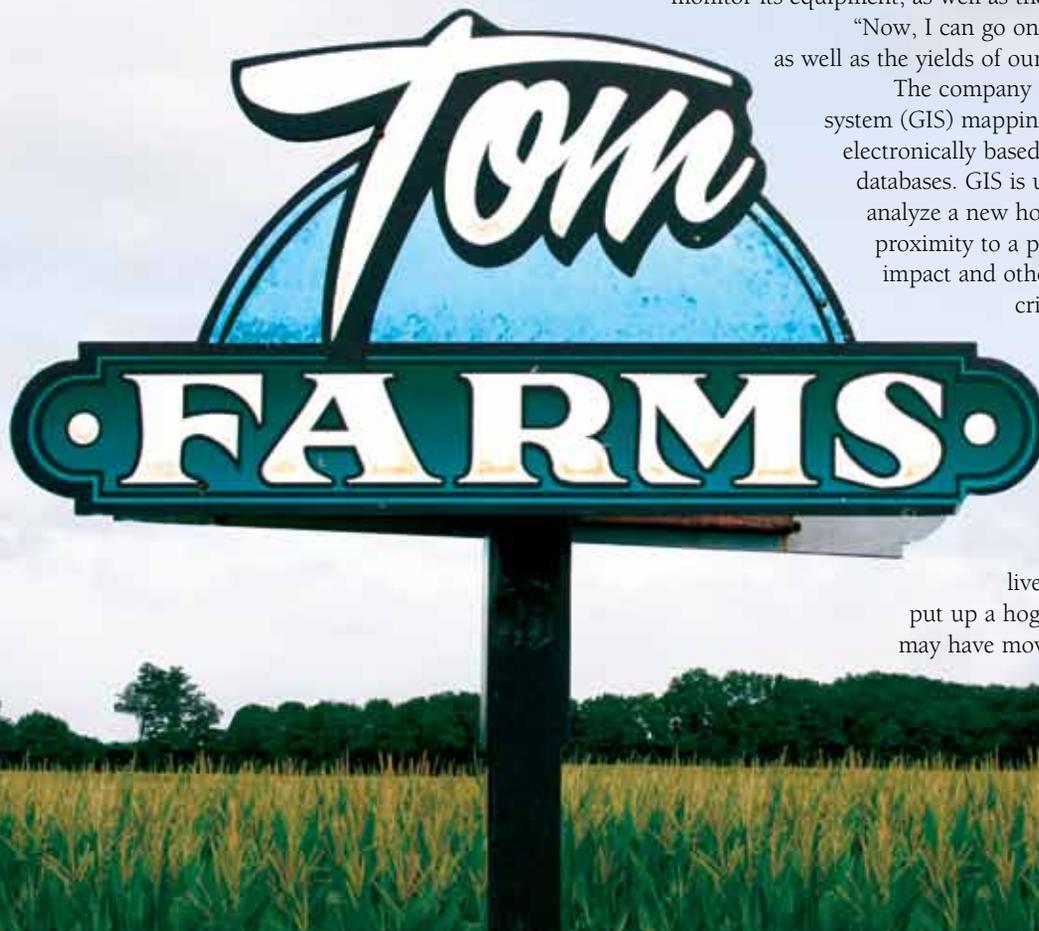
"They are inserting traits into the seed genetics that are not only improving yields, but reducing our use of precious natural resources such as water with technologies such as the drought gene," Tom adds. "Other novel new genetics bring value to the consumer with soybean products that may assist in dealing with osteoporosis in women, to name just one of the many initiatives."

Additionally, Tom Farms uses the latest in global positioning system (GPS) technology to monitor its equipment, as well as the production yields.

"Now, I can go online and see where our tractors are, as well as the yields of our products," he explains.

The company also uses geographic information system (GIS) mapping software, which builds maps electronically based on information pulled from databases. GIS is used by planners, for example, to analyze a new housing development by factoring in proximity to a population center, environmental impact and other risks. Tom asserts this type of critical thinking is necessary in public agriculture planning, especially in Northern Indiana.

"Something that's common throughout the state is a lack of good land use planning," he says. "We haven't done a good job of saying where houses can go, or where manufacturing or livestock can go. A farmer may want to put up a hog barn, but someone down the road may have moved in from the city and not want





**A family business founded in 1952, Leesburg-based Tom Farms has become one of Indiana's most innovative agriculture companies. Now a key seed corn provider for Monsanto, Tom Farms proves technology is critical to the farming industry.**

the smells associated with that. There's a lot broken down into local governance, and we need better design (to avoid confusion). That type of conflict is more pronounced around urban areas or here in Kosciusko County because we have over 100 lakes."

### Legislatively speaking

He also suggests it's critical that Indiana protect its resources, such as water rights, pointing out that water use varies in different parts of the state.

"Typically, in most areas of Northern Indiana we have high-yielding water wells that are sustainable as compared to some areas in Southern Indiana where they don't have the sustainable capacity," Tom notes.

He also points to Annex 2001, an agreement reached by Indiana, seven other Great Lakes states and Canada (signed in 2001, implemented in 2005) to protect the Great Lakes waters and ecosystem.

"What this does in effect is assure there is no adverse claim by other water deficient areas outside of the Great Lakes Basin from taking our water," Tom shares. "The intent was to protect this valuable resource for future generations, as well as the environment today and into the future.

"This compact had conditions for each and every state and province to design how to achieve our goals of documenting and managing how our water was used and consumed in the basin," he adds. "As producers, we want to make sure we manage and protect all of our resources, and water is one of them, and along the way balance the economic contribution of this resource in Indiana."

He qualifies that one challenge in embarking on such partnerships is "there are groups outside of government and the industries that have been able to influence states like Michigan to adopt measures that are not designed using science and technology to develop methods of regulating the resource."

### Corn is king

Tom explains that by 2050, the world's demand for food will double due to population booms and income growth in Asian countries. He contends this will lead to higher consumption of protein and dairy.

"If you double the demand and have to use the same

acreage to do it, we must turn to science and technology to make this happen," he contends. "There are a lot of places in Asia where diets currently don't have much calcium or milk. If a country has 1.4 billion people and they begin to consume these products or their government leaders recommend they consume them, it's unbelievable the demand that creates."

With that factor in play, he asserts that the steady increase over time in corn production is a harbinger of what's possible as technology evolves.

"In 1972, the average corn yield was 72 to 73 bushels per acre," he offers. "Today, it's 164 bushels per acre. And by 2025 to 2030, it's likely to hit 300 bushels per acre. This is because of genetics."

It's the corn production that Tom believes is extremely critical in the success of the agriculture industry – and for society to progress.

"Corn is in everything we touch and breathe," he surmises. "It's important to keep that genetic innovation to keep producing it.

"Unless we end up with a lot of new regulations, Indiana will be integral in feeding the world," Tom professes. "We have good roads, good rail and river systems. We need to leverage that opportunity."

Tom stresses the key for agricultural success is to "be more value-added, and less focused on selling commodities."

He notes that despite some perceived setbacks, ethanol is indeed the best hope for the immediate future in terms of biofuels.

"Ethanol is here to stay," he states. "It's part of our energy independence portfolio that we need to pursue. Corn-based ethanol and the expansion of yields will lead to more ethanol and enough corn to feed our livestock."

Tom adds that he's been involved in the research and analysis of other potential biofuels like switchgrass and corn stover (comprised of leaves and stalks left in the field after harvest) and believes they are a long way from being put into practice.

"Right now, the infrastructure supports corn," he says. "There's a lot of energy in those little kernels."

#### INFORMATION LINK

**Resource:** Kip Tom, Tom Farms, at [www.tomfarms.com](http://www.tomfarms.com)