

Growing more food with technology

Practicing no-till farming and using a combination of biotech crops and crop protection products has helped an American farmer grow sustainably



Terry Wanzek (extreme right) with his wife and youngest daughter on the family farm in North Dakota. He says, "Agriculture is a science. I'm convinced that technology has helped us manage our farm and environment better."

In the semi-arid state of North Dakota, farming has been viable for American Terry Wanzek, thanks to technology. From growing biotech crops for higher yields, using pesticide responsibly and practicing no-till farming to prevent soil erosion, his 4,000-hectare farm is profitable because of the benefits of plant science, he says.

The 52-year-old farmer, who is also a state senator in North Dakota, grows wheat, corn, soybeans, barley, dry edible beans and sunflowers. The state is located in what used to be known as the Great Dustbowl of America in the 1930s, when excessive plowing caused much soil erosion.

Decades of better soil management methods, including no-till farming, have improved the situation. In addition, the father of three has also turned to the use of biotech crops since 2000 for higher yields. He, his son and a nephew have 2,000 hectares devoted to biotech soybean.

"The stewardship of the land for producing food is an honorable profession," says Wanzek. "With what I plant, I like to think I've produced a million loaves of bread. The technology we have now allows our children to have a better future."

When he first started cultivating biotech soybean, Wanzek was criticized for hurting the wheat market by cutting back on wheat farming. Some 10 years later, he notes, some of his critics have switched completely to biotech soy while he is still growing wheat through the practice of crop rotation.

"I believe in crop rotation to break the disease cycle of crops," says Wanzek. "For instance, we rotate wheat with soybeans and beans with corn. Corn uses a lot of nitrogen produced by the beans." Combining no-till farming methods and biotech crops has not meant a total abandonment of non-biotech crops. But biotech crops have changed the crop mix and the farming landscape in North Dakota.

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The goodness of no-till farming

Wanzek’s family, like many others, has switched to no-till farming to conserve the fertility and moisture of the soil. With better fertility, controlling weeds has become an issue. Terry uses broad-spectrum herbicides that target hardy weeds. They keep his production costs down, as less labor and fuel are needed for weeding.

The result is that farmers’ lives have also improved as soybean prices have brought more income security in the past five years. Indeed, 2008 was probably the best year for at least a decade for Wanzek and other farmers in the county.

He notes the boom in soybean farming has also helped smaller farmers buy more land and equipment. The community has also seen more schools and facilities being built, he says.

“It is now difficult to turn back the clock. I don’t understand why people against the use of biotech crops find agriculture of the 1930s so romantic. What they want is for us to go back to that. But if you have a medical condition, why would you go to a doctor who practices the medicine of the 1930s?”

He adds, “Agriculture is a science. I’m convinced that technology has helped us manage our farm and environment better.”



Wanzek’s youngest daughter knows her future is brighter because of her father’s success.

Harnessing technology to cut costs

Keeping costs down is a precise science on Wanzek’s farm. The technology on his 4,000-hectare farm is programmed to avoid overlap in the spraying of herbicides. The computer automatically shuts off the spraying if this happens. Technology is also used to prevent over-seeding.

About CropLife Asia:

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