

As a member of the Iowa Soybean Association board of directors when it began looking at on-farm studies, Denny helped develop of the On-Farm Network™. He's also helped organize a group of farmers in his area to conduct similar studies and share results.

He and Brent began cutting the amount of nitrogen they used after their first trials showed no difference in yield between applications of 120 lbs. and 70 lbs. per acre in corn following soybeans.

"For years, we've followed yield goal recommendations when using nitrogen," Brent says. "Conducting our own studies on nitrogen rates helps us learn what the proper rate should be, and then be comfortable in using that amount."

The Friests are now using 90-100 lbs. of applied nitrogen on corn after soybeans. They use hog manure on as much of their corn ground as possible, and also purchase litter from a local poultry producer for other fields. Some of the tests they've done with the On-Farm Network involve both manure and added nitrogen. "We're looking for the right balance of nitrogen from manure and from fertilizer, in order to make the best use of the manure resource," Denny says.

"By testing in replicated strips, we're learning how to maximize the value of our hog manure and the chicken manure we purchase. And, too, it lets us know that the manure we're purchasing is paying for itself," Brent adds.

In addition to looking at nitrogen and manure in replicated strip trials, the Friests have put out strips testing routine fungicide use in corn and soybeans, foliar fertilizers in soybeans, increased phosphate and potash fertilizer application, seed treatments and inoculants, and routine use of insecticides in corn.

Denny says doing these has helped build his confidence in GPS and auto-steer technology, too. "These technologies help to mark strips and locate them later, and also keep us on track so the data is reliable," he says. "Investing in these technologies has helped me learn ways to increase profits. You don't always need increased yield to make more money. Much of the time, what I'm learning is how to save money by not buying products I don't need. Reducing inputs also increases profits."

Denny believes the cumulative work of the On-Farm Network will help farmers avoid nuisance regulation. "What I'm seeing suggests that regulating nitrogen use isn't necessary," he says.

"I'd like to invite more Iowa farmers to participate in this program," he continues. "We've taken funding from the soybean checkoff and used it as leverage to bring in more financial support from state and federal sources. Participants in nitrogen studies are offered a payment for yield losses if the low rate they test yields significantly less than their normal application rate. It's really a no-lose proposition to help you improve your management practices."

**D**ennis Lindsay's interest in on-farm studies dates back to the early 1990s, when he began working with Iowa State University researchers and extension specialists. "We began using GPS and combine yield monitors in 1994 to answer some of our questions about crop production," he says. "Instead of simply answering questions, though, the process of on-farm testing increased our questions about our farming practices."

Lindsay farms in Buchanan and Delaware counties with his sons, Brian and Jeff. They grow corn and soybeans. Brian and Jeff also operate a hog finishing enterprise.

The main questions Lindsay began with when he started conducting on-farm studies were about the use of fall-applied anhydrous ammonia, the proper application rates and whether N-Serve® was economical. He also wanted to look at whether seed treatments of various kinds were worthwhile.



**Dennis Lindsay**

He began working with the On-Farm Network when the Iowa Soybean Association organized it in 2000. He helped organize a local GPS users group at that time, and many of the participants in the group also work with the On-Farm Network.

"We were all interested in doing our own research, but we knew we needed to look at more than just what we did ourselves. Tracy (Blackmer) helped us set up our trials. We've continued to work with ISA. When the data has been processed and analyzed, we get together, look at each other's results, and talk about what we learned, what worked, and what didn't. As the On-Farm Network grew throughout the state, we've been able to look at results from other areas. This has led to questions about why things work for us, but not in other areas, or why they're successful in other parts of the state when they don't work for us," he says. "And that means more studies and more discussions. It's all been very helpful in making deci-