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county. He calls it an “almost perfect” way for the federal government to encourage growers to take a hard look at how they manage nitrogen use. He says the program was a good way to try low rates on a large scale, and the incentive payment provided insurance against cutting rates too low.

Tjelmeland intended to apply only about 80 lbs. of nitrogen, but because of an application error and concern that that rate might have been a little low, his actual application rate was closer to 100 lbs. per acre. His test field averaged 189 bu. per acre. He says he doubts that any more nitrogen would have been economically productive on the flat, poorly drained soil.

While he’s not been involved in other Iowa Soybean Association On-Farm Network™ nitrogen management studies, he’s been slicing rates gradually for the last five years and vows to continue to reduce use as much as feasible. “Stalk tests can be a huge asset in telling us what that level will be,” he says.

“Putting the nutrient where the plant uses it more efficiently has helped reduce production costs without sacrificing yields.”

Like many of the project participants, Tjelmeland sidedressed most of the nitrogen. “Farmers running hundreds of acres don’t think that’s practical, and I understand that. I also think stirring the soil a little as you do when you inject fertilizer stimulates plant growth and gets the nitrogen where the plant will use it. And, it doesn’t cost much to gear up to do a portion of your land nearest to you,” he argues.

Over the past nine years, Eric Devig, Marshall county, has been cutting back on nitrogen use, from a high of 170-180 lbs. of nitrogen for corn following



soybeans. He applied about 90 lb. of nitrogen per acre on his 80-acre program field, and didn’t find much yield difference between it and fields where he used his normal rate, which is now in the 110 lb. per acre range.

In his 50/50 corn and soybean rotation, Devig sidedresses most of the nitrogen he uses. It takes him five days to cover his 600 acres with an 8-row applicator. “Putting the nutrient where the plant uses it more efficiently has helped reduce production costs without sacrificing yields. With the increased cost of inputs, that’s a big thing,” he says. ♦

Learn more about this program and results of stalk testing on these fields at the 2006 Nitrogen Conference.