

Nitrogen Strip Trials are increasing profits

Much of the work done by farmers cooperating with the On-Farm Network™ to date has looked at nitrogen application rates for corn. “Many of the farmers in this program have found they can cut nitrogen rates by 50 lbs. an acre or more by simply switching from fall applied anhydrous to spring anhydrous or a side-dress application,” says Dr. Tracy Blackmer, ISA director of research. “That doesn’t mean all growers can cut nitrogen rates. Some have already cut rates and their strip tests have shown their lowered normal rate is just about right.”

Jerry and Jay Ostrander, a father/son farming team near Jefferson, have switched from all fall anhydrous on their corn to all sidedressing with a 32% liquid nitrogen (urea-ammonia-nitrate) solution.

“We always anticipated some loss from fall anhydrous and adjusted application rates accordingly,” says Jay. “We might have been able to use less anhydrous, but we just didn’t want to take a chance on being short.

“When we inject liquid nitrogen after the corn is up, we’re putting the fertilizer on when the crop needs it, so chances of loss are considerably less. We’re using no more than 120 lbs. total nitrogen for a corn crop now, compared to about 175 lbs. when we used all fall anhydrous,” he adds.

That’s a savings of 55 lbs. of nitrogen. Granted, pound for pound, nitrogen in solutions costs a little more than in the anhydrous form. “We paid three to four cents more per pound of nitrogen in the 32% solution than for anhydrous last year,” Ostrander says.

If nitrogen costs \$0.20 a pound as anhydrous and \$0.24 as 32% UAN solution, 175 lbs. as anhydrous is \$35 an acre, while 120 lbs. from solution costs \$28.80. For the Ostranders, that’s a savings of \$6.20 an acre.

What about yield? For the Ostranders, corn yields have continued to trend upward. It’s possible some of that upward trend is because they’re no longer losing nitrogen the crop needs.

Jerry Ostrander, on tractor, and his son Jay sidedress liquid nitrogen on all their corn.



Denny and Brent Friest

Beyond Strip Trials

This looks fine in strip trials, but can low rates work on an entire field?

Results aren’t in for all the Iowa farmers who took part in the “under 100 lbs. nitrogen” full field trials in 2005, but Brent Friest, Radcliffe, one of the participants, averaged 207 bu. on less than 90 lbs. of nitrogen on an 80 acre field.

“We’ve been cutting back on nitrogen rates for a few years and in 2004, we found yields were similar for strips of 80 and 130 lbs.,” Friest says.

If the Friests had used the recommended 1.1 lbs. per bushel with a yield goal of 200 bu., they’d have applied 130 lbs. more than they needed. Put a pencil to that with today’s nitrogen prices.

