



Replicated Strip Trials = Money in the Bank

Most On-Farm Network™ cooperators believe that's true. "I'm buying a new combine this year with the money I saved on nitrogen," one long-term participant says.

He may be exaggerating a little, but consider this: If anhydrous sells for \$400 a ton (anhydrous contains 1640 lbs. of nitrogen per ton) next spring, that's \$0.24 a pound. Cutting application rates by 50 lb. per acre will mean a savings of \$12 an acre. If cutting rates doesn't impair yields, that's \$12 in the bank – or to pay for that new combine (or pickup, or something nice for the wife). On 500 acres of corn, it's \$6,000.

For four years now, some ISA On-Farm Network cooperators have taken a close look at deep tillage. We don't have final results in yet for the 2005 trials, but in previous years, growers have found that deep tillage as a routine practice does not pay. It does pay – and sometimes in a big way – on certain fields, or in areas within fields where soils are heavy with poor internal drainage. Some growers saw a 10 bu. or more yield advantage but on the average, deep ripping has given growers less than a 2 bu. corn yield increase. There appears to be no impact on yields in soybeans planted the second year after ripping.



The results say ripping improved yields in a few places, but it cost some growers yield.

What does this mean to your bottom line? Our assumptions were that deep ripping costs (machinery, labor and fuel) amounted to \$15 to \$20 an acre. Because we saw no

yield impact on crops in second and third years after ripping, the cost has been charged in the first crop year only. That means growers who ripped incurred a \$15 or more expense per acre for less than a \$4 return (2 bu. times \$2 per bu. market price).

The difference for 2004–05 could be remarkably different, with corn prices low and fuel costs roughly double what they were when our deep tillage strip trials started. If ripping costs climb to \$25 to \$30 an acre and corn prices stay under \$2, yields must be at least 12.5 bu. better to break even. And it's anyone's guess what might happen next year.

Brad Plunkett, Maxwell, saw the best response to ripping of any of the On-Farm Network deep ripping trial participants in 2004. In his replicated strips on a field with heavy creek bottom soil, ripped strips averaged 11.6 bu. an acre more than the untilled strips. "I thought we'd see some advantage to ripping, but that was more than I expected," he says. "Even with that much of an increase, the practice was just barely break-even. And with higher fuel costs this year, I'll be ripping only areas I know are compacted enough to limit root growth."



Brad Plunkett

Plunkett and most of the other ripping trial participants are reporting this fall on soybean yields in fields with strips ripped for the 2004 trial. Those results will be available at the On-Farm Network website, www.isafarmnet.com.