Practical Farmers of Iowa

Tillage Trials

The weather is certainly a factor in the performance of any system of tillage. In 1993, three replicated trials compared ridge tillage and no-till (<u>Table 6</u>). The tillage treatments in **Jeff and Gayle Olson's** field trial differed only in that corn was planted into either into drilled-bean ground or ridges from the previous year's trial. Both treatments were cultivated once and received the same application of ExtrazineTM and 2,4-D. Costs were the same, and there was no difference in corn yield.

Don and Sharon Davidson, Grundy Center, continued their comparison of ridge tillage and no-till, with 1993 the second year on the same site. Whereas in 1992 drilled soybeans were more profitable than ridge-till beans, in 1993 row-seeded no-till soybeans were much less profitable. Not only were costs higher in the no-till soybeans, but yields were almost 8 bushels less. Don had some trouble at harvest because of dirt clods thrown into the row by the one cultivation in the no-till treatment. He also observed that the ridge-till controlled



early grasses much better than the no-till. Don admits that the postemerge PoastTM application on July 28 was later than it should have been. He had to balance the demands of the experiment against those of the rest of the farm, and he is still learning how to be a no-tiller.

Don Davidson also attempted to raise no-till corn the way his neighbors do. That meant not applying a starter fertilizer. As do the majority of ridge-till farmers, Don does use starter fertilizer in corn. His no-till corn yielded almost 13 bushels less than the ridge-till corn. Was it because of the lack of starter? This illustrates one of the dilemmas of on-farm research. Should you compare individual variables or whole systems?

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