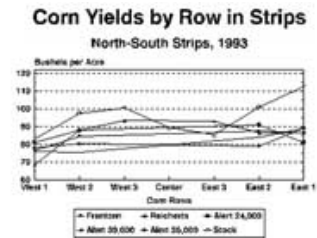


## Narrow Strip Intercropping

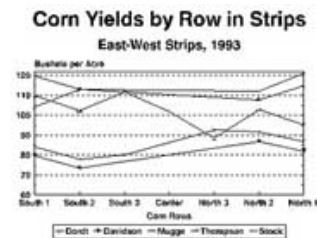
Figure 4. Narrow Strip Intercropping 1993 corn yields by row for strips tunning north-south.



Past experience has suggested that the biggest advantage of narrow strip intercropping is seen in years with good yield potential. In years of drought stress, yields of stripped crops are no better than yields of whole-field blocks, and the outer rows of strips yield no better than the inner rows. The crop stress in 1993 was not from drought but too much moisture and late planting. With support from the Leopold Center for Sustainable Agriculture, PFI cooperators collected data from around the state on the behavior of this practice in a wet, short year like 1993.

As [Table 6](#) shows, yields in strips relative to whole-field blocks was variable. **Doug Alert**, Hampton, found the greatest advantage to strips, with a 27.8 bushel advantage. Stripped soybeans varied from a 3.9-bushel deficit (**Jeff and Gayle Olson**, Winfield) to a 1.6-bushel advantage (Doug Alert). **Dick and Sharon Thompson**, Boone, found a 12 bushel benefit to stripped soybeans, but the figure is not directly comparable. Their strip system is a corn-bean-oats/berseem clover rotation using ridge-till and banded fertilizer, while the comparison field block is in a corn-soybean rotation with disk tillage and broadcast fertilizer. Because of weather problems, **Paul and Karen Mugge**, Sutherland, could only compare strips in a corn-soybean-oat rotation to field blocks in a corn-soybean rotation.

Figure 5 Narrow strip intercropping 1993 corn yields by row for strips running east-west.



With help from ISU researchers Rick Cruse and Mohammed Ghaffarzadeh, yields-by-row were gathered on eight cooperators' farms ([Table 7](#), Figures 4 and 5). These yields may differ somewhat from those shown in [Table 6](#). Four cooperators had strips running north-south. (A strip of Doug Alert's was thinned to different populations.) There was a tendency for corn to yield more on the eastern edge of these corn strips than in the row bordering the west edge of the strip. These east edges also were usually next to oats, while the lower-yielding west rows were next to soybean strips.

No such trend emerged in the strips running east-west. In addition to five corn strips, yields were measured by row in two soybean strips. **Dordt College** estimated soybean yield by counting plants, pods, and beans per pod in each row.

In the next months, PFI cooperators will be working with Don Davidson and Extension field specialist John Creswell to complete the Crop Enterprise Analysis on their strip and whole-field systems. The economic information that emerges from that work will reflect yields, but it will also show where cooperators made the most of the oats/berseem clover crop. Previously, the "weaking" of the crop rotation, oats/berseem was a highly productive source of forage this year for those who had livestock to utilize it. **Paul and Karen Mugge**, Sutherland, examined the economics of oats alone, berseem seeded with oats, and berseem seeded into oats ([Table 4](#)). **Tom and Irene Frantzen**, New Hampton, documented the utilization of the berseem strip for greenchop feed. Their results will appear in the next PFI newsletter. These cooperators are coming to see narrow strip intercropping as more than a fancy way to row crop. It can be an entry point into a more diverse and integrated farming system.