

Weed Management

The wet spring weather in 1996 confounded more than one weed management plan. **Tom and Irene Frantzen**, New Hampton, finally planted ridge-till soybeans June 14 after clearing the field of broadleafed weeds with an application of 2,4-D. They compared planting with a band of Frontier® and without (Table 4). The whole field was later cultivated twice. Broadleafed weeds were only present at all at one end of the field, and there was no difference in soybean yields.

Following up on reports that some herbicides have resulted in crop damage, the Frantzens also carried out a three-way trial in ridge tillage comparing: 1) mechanical-only weed control; 2) Accent®/atrazine applied at cultivation; and 3) Frontier® banded at planting (Table 4). In this trial, Tom observed no crop stunting. The two herbicide treatments had fewer broadleafed weeds and grasses than the mechanical control, and the Frontier treatment yielded significantly better than the no-herbicide control treatment, more than paying the cost of the herbicide.

Richard and Sharon Thompson, Boone, evaluated seven different weed management combinations in soybeans (Table 4). One treatment consisted of planting into disked ground. The others built upon the basic ridge-till planting with additions of cover crop, rotary hoeing, extra ridging at last cultivation, and planting in the dark. Table 5 shows how the treatments added onto one another. The disk treatment did not yield as well as most others and it contained more broadleafed weeds than the other treatments. The most profitable system was "plain vanilla" ridge tillage, although adding the rotary hoe, rye cover crop, and vigorous ridging to basic ridge-till both increased soybean yield and reduced broadleafed weeds.

TABLE 5. SEQUENCE OF TREATMENTS IN THOMPSON WEED MGT. TRIAL						
TREAT- MENT NO.	BASIC TILLAGE	RYE COVER CROP ON RIDGE	RYE SHREDDED	ROTARY HOE	NIGHT PLANTING	EXTRA BIG RIDGE AT LAYBY
1	DISK	-	-	-	-	-
3	RIDGE-TILL	-	-	-	-	-
2	"	+	-	-	-	-
4	"	+	+	-	-	-
5	"	+	+		-	-
6	"	+	+	+	+	-
7	"	+	+	+	-	+