- 1999 Planting Date Study -

Planting Date Study: Ten acres in Field 1a used to determine the optimum time for planting organically grown soybeans to reduce weeds and to provide the best economic return as a balance of yield, weed control and crop quality.

Objective: Determine the affect of planting date on weed control, yield, and profitability for food-grade organic ridge-till soybeans produced in west-central Illinois. This is the second experiment for this study. The first experiment, in 1997, supported the contention that later plantings provide easier weed control; however, the yield loss at later plantings indicated that this is not economically feasible. The results of the 1997 study are supported by the 1999 results.

Planting Date Study: Crop: IA 3001 organic soybeans, Planting System: ridge-till
Planted Population: 182,000, Mechanical Weed Control:

Planting Date #1: May 22, 1999
Planting Date #2: June 1, 1999
Planting Date #3: June 15, 1999
Planting Date #4: June 25, 1999

Results: Weed control was easier with later planting dates, but crop reproductive development was inhibited and yields were significantly reduced at the later planting dates, Table 1, Field 1a. Some aspects of seed quality, i.e. % large beans, % unblemished, % brown stain and % splits, were improved by later planting dates, while other aspects of seed quality, i.e. % green and % damaged, were decreased by later planting dates, Table 1. The % purple stain and % shriveled seed were not significantly changed with planting date, data not shown. The % seed coat splits was lowest at the June 1st planting date, but increased at later dates. Since the later planting dates significantly reduced yields, we are terminating these studies.

Table 1 Summary of soybean yield and seed quality analyses. Each value represents the mean of four replicates. IA 3001 was used in this study.

Date Planted	Yield Bu/ac	% Large Beans*	% Unblemished	% Brown Stain	% Green Stain	% Damaged	% Splits	% Seed Coat Splits
								b
			9.9 a	66.6 ab	1.2 ab	6.9 b	23.0 ab	17.6 b
6/15	20 c	79.0 b	20.3 b	54.7 c	2.1 b	5.8 b	18.6 ab	19.8 ab
6/25	13 d	75.2 b	21.5 b	56.7 bc	2.5 b	6.7 b	12.9 b	24.7 a

* Large beans are defined as whole beans, (undamaged) whic