On-farm Land Rolling of Soybeans

RFR-A1317

Land rolling is the practice of pulling a large, heavy roller across soybean fields in order to push down rocks, smooth the surface of the field, and help break up residue. The purpose is to protect harvest equipment that could be vulnerable to rocks and corn roots, thus saving money. Yields also are expected to improve by creating a more uniform harvest.

Methods

Two land rolling trials were conducted in 2013. Strips that were land rolled were compared with strips that were not. Treatments were replicated three or more times in both trials. Individual trial information can be found in Table 1.

Results

There was not a significant effect of the land rolling on the soybean yield in either of the two trials (Table 2). Land rolling is still fairly new to Iowa and there is more to be learned about this practice.

Table 1. Variety, row spacing, planting date, planting population, previous crop, and tillage practices in land rolling trials.

Exp. No.	Trial	County	Variety	Row spacing (in.)	Planting date	Planting population (seeds/A)	Previous crop	Tillage
130109	1	Sioux	Pioneer 91Y90	30	5/13/13	150,000	Corn	No-till
130118	2	Lyon	Asgrow 2032	30	5/20/13	140,000	Corn	No-till

Table 2. Yield from soybean land rolling trials.

		Yield (bushels/A)			
Exp. No.	Trial	Treatment	Control	Response	P-value
130109	1	64.3	64.8	-0.5	0.67
130118	2	56.6	55.6	1.0	0.17