Row Cleaners

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Objective

To determine if row cleaners had an effect on soybean population and establishment.

Background

Table 1. Plot background summary

Crop Year: 2021	Previous Crop: Corn
Location: Leon Klopfenstein Farm	Tillage: No-Till, 1 year
County/Town: Paulding/Haviland	Planting Date: 5/24/2021
Primary Soil Type: Latty Silty Clay	Seeding Rate: 151,000 seeds/acre
Drainage: Systematic Tile, 30-ft spacing; perpendicular to study	Harvest Date: 10/15/2021

Methods

Soybeans were planted into standing cereal rye, which was seeded at 50 lbs/acre. The study compared use of row cleaners with the absence of row cleaners when planting green. Row cleaners were installed on alternating rows of the planter. Because of this, yield data could not be collected. Stand counts were used to determine differences in emergence. All cropping practices were held consistent across the field other than the row cleaner use.

Results

Visually, the two treatments looked indistinguishable from one another. There were statistically significant differences in plant population between the two treatments ($P < 0.1$). OSU recommends a seeding rate around 120,000 seeds/acre, while this field was planted at 151,000 seeds/acre. If a similar loss of plant population were to occur at the recommended 120,000 seeds/acre seeding rate, a drop in yield may be experienced without the use of row cleaners.

Table 2. Row Cleaner Study Results

Treatment	Average Emergence (plants/acre)
Row Cleaners	122,138 A
No Row Cleaners	115,269 B
LSD (0.1): 6,507 CV: 7.8%	

Summary
Because row cleaners were used in alternating rows, yield data was not collected. The treatment that utilized row cleaners had a significantly higher plant population than the treatment without row cleaners.

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