Strip-Till Soybean on Corn

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Materials and Methods

Soil:	Embden loam, Embden sandy loam, Gardena loam and Maddock sandy loam; soil-P and soil-K were very high; soil-S was high.
Previous crop:	2007 – field corn; 2006 – pinto bean and soybean; 2005 – broccoli, cabbage and pumpkin.
Seedbed Preparation:	Strip-tilled on November 16, 2007, with a shank machine with leading coulters, row cleaners, anhydrous knives and closing disks.
Planting:	Planted Croplan 1077 treated with Celltech inoculant on May 8 at 174,000 plants per acre in 30-inch rows.
Plots:	Plots were 37 ft. long by 15 ft. (6 rows) wide. There were four replications.
Fertilizer:	November 2007, during the strip-till operation applied 10 lbs. N/acre and 35 lbs. P_2O_5/acre as 10-34-0.
Irrigation:	Overhead sprinkler irrigation as needed.
Pest control:	Applied Valor (2.5 oz/acre) on May 12, Buccaneer Plus (40 oz/acre) + Resource (6 oz/acre) + NIS (0.5% v/v) + AMS (10 lb/100 gal) on June 10, Buccaneer Plus (32 oz/acre) + NIS (0.5% v/v) + AMS (10 lbs/100 gal) on June 16 and Cornerstone Plus (32 oz/acre) + AMS (10 lb/100 gal) on July 9.
Harvest:	On October 1, all the soybeans were harvested, including the borders, with an M2 Gleaner combine using an 18 ft. love-bar.

Results

This study is the soybean component of the corn-soybean strip-till rotation. Corn is rotated to this site every other year and N rates tested. The objective of this study is to find the response of soybean to no-till planting on strip-tilled corn ground. The entire plot area (0.36 acres) averaged 50.4 bu/ac at 13.0% moisture. Grain contained 34.2% and 18.6% protein and oil, respectively.