

Soybean Yield Under Herbicide and Row Spacing Management

Mark Licht—assistant professor, Department of Agronomy

Fernando Marcos—research scientist, Department of Agronomy

Objective

Determine the effects of herbicide program, cultivar type and row spacing management on soybean yield.

Materials and Methods

Crop Years—2020 and 2021

Soil Type	Marshall
Previous Crop	Corn
Cultivar	Per treatment scheme
Planting Date	May 6, 2021
Row Spacing	15-in. and 30-in. (treatment scheme)
Seeding Rate	140,000 seeds per acre
Tillage	No-tillage
Fertilizer	Optimum to high soil test
Nitrogen	Optimum to high soil test
Harvest Date	October 10
Experimental Design	Split-split-plot
Replications	Four
Treatments	Herbicide program (Herb): Pre versus Preand Post a. Pre: no-tillage burndown of Zidua Pro, 2,4-D, glyphosate, MSO, AMS b. Post: Liberty, Zidua SC, glyphosate, AMS Cultivars (Cult) and growth type (Trait) per year: a. 2020: CZ2760 (upright), CZ2910 (upright), CZ2830 (bushy), and CZ3099 (bushy) b. 2021: XO2501 (bushy), XO2921 (upright), XO3131 (upright), and XO3341 (bushy) Row spacing (Row): 15-in. and 30-in.

Results

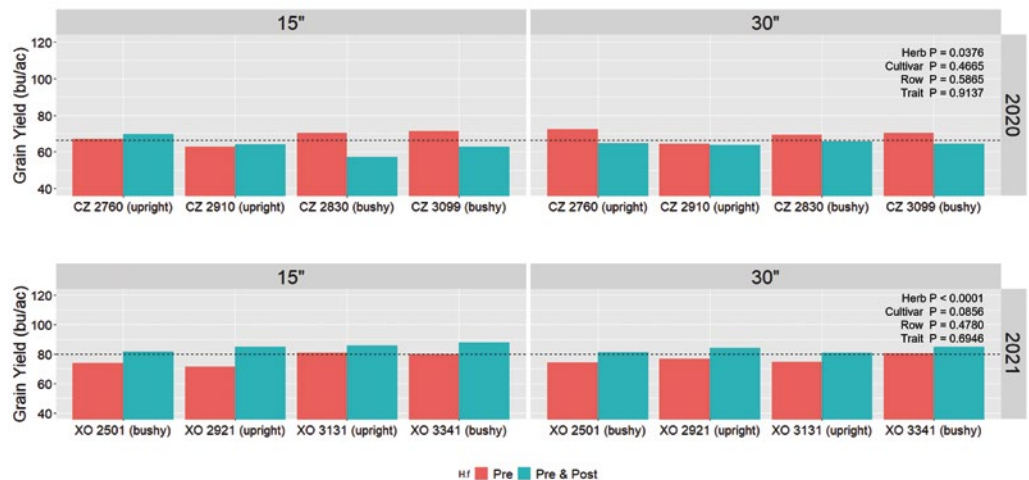


Figure 1. Soybean grain yield at 13% moisture.

Key Takeaways

- The main effects of cultivar, growth type and row spacing did not have significantly different soybean yields.
- The herbicide program main effect did have significant effects on soybean yield, where in 2021 the Pre and Post program resulted in higher soybean yields.