School of Agriculture-Western Illinois University

SoilBiotics X-Cell ST (Seed Treatment) Plots

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Introduction:

X-Cell ST is an organically approved liquid seed treatment derived from mined humates that was developed by SoilBiotics. According to SoilBiotics, X-Cell ST and other X-Cell technology products contain "humic, fulvic, and ulmic acids" and "increase seed germination, seedling vigor, and crop yield". Additional information about SoilBiotics products, including OMRI labels, is available on the company's website: http://www.soilbiotics.com/

In this 2012 study, X-Cell ST was used to treat Blue River Hybrids 35C2 soybean seeds prior to planting. The plots were located at the Western Illinois University conventional main farm in McDonough County, IL. The only parameter

With alpha set at 0.15, statistically significant results indicate that there is an 85% chance that a treatment significantly improved yield and a 15% chance the yield improved because of random events.

Condusion:

Spatial biases complicated the interpretation of this study's results. We attempted to identify and isolate the biases but additional study with the same treatments as well as a conventional seed treatment would probably be informative. X-Cell ST boosted soybean yield above what we deemed to be the most comparable set of control plots, so there is some evidence that the treatment can contribute to a profitable net return. Additional study with complete plot randomization and more normal weather conditions is needed to recommend X-Cell ST without reservations.

Plots with Yields: Map 1

North

	<u>Border</u>	<u>Border</u>	<u>Border</u>	<u>Border</u>	<u>Border</u>	<u>Border</u>	Border	Border
Border	Border	Border	Border	Border	Border	Border	Border	Border
Border	TH1 68.9 bu/a	Border	C-TH1 55.0 bu/a	C-X10 72.3 bu/a	Border	X10 58.5 bu/a	Border	Border
Border	TH2 63.4 bu/a	Border	C-TH2 60.6 bu/a	C-X9 65.0 bu/a	Border	X9 54.9 bu/a	Border	Border
Border	TH3							

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