

Evaluation of Stoller Brand of Products for the Production of Corn

John Yost, Ohio State University Extension Educator, Fayette County

Mike Estadt, Ohio State University Extension Educator, Pickaway County

Joe Davlin, OARDC, Western Agricultural Research Station, South Charleston, OH

Objective

To determine the response of corn yield to seed and foliar applied growth regulators

Background

Crop Year:	2009	Tillage:	No-Till
Location:	Western Agricultural Research Station, South Charleston, OH	Planting Date:	May 22, 2009
County:	Clark County	Seeding Rate:	32,100 seeds/acre
Drainage:	Tiled, Well drained	Hybrid:	Pioneer 33W84
Previous Crop:	Clover	Harvest Date:	November 23, 2009

Methods

Products with Stoller Brand Descriptions

Bio-Forge: Bio-Forge® is an antioxidant that purges plant cells of excess ethylene for all crops. Bio-Forge makes crops and plants stronger and better able to live through a number of stressful conditions including drought, flood and freeze.

Power Plus: PowerPlus™ enhances crop quality, yield and nitrogen effectiveness increasing the grower's return on investment. With the implication of reduced inputs due to the increased effectiveness of nitrogen, PowerPlus holds the promise of even more financial return for growers and farmers in the form of reduced inputs. PowerPlus is a combination of micronutrients and other co-factors that encourages more cell division and keeps cells alive longer in high-population planting. Roots and base of plants are established and fortified to support growth and sustain crop health.

X-Tra Power: X-Tra Power enhances root growth and seedling vigor, increases seedling vigor and preconditions the crop to better tolerate adverse weather conditions such as cold and hot weather, drought and extremely wet or flooded conditions.

This study was conducted at the OARDC branch located in South Charleston, OH. Corn was planted on May 22 into 10' X 100' plots at a seeding rate of 32,100 seeds per acre with a John Deere 4 row planter. The hybrid used was Pioneer 33W84. The treatments used were:

- 1) Control
- 2) Seed Treatment of Xtra Power and Zinc + ½ gal of Power Plus with side-dress
- 3) Seed Treatment of Xtra Power and Zinc + 1 gal of Power Plus with side-dress

- 4) Seed Treatment of Bio-Forge at 4 oz/cwt
- 5) Seed Treatment of Bio-Forge at 4 oz/cwt + ½ gal of Power Plus at side-dress
- 6) Foliar 1 pt/ac Bio-Forge at V7
- 7) Seed Treatment of Xtra Power and Zinc + Foliar 1 pt/ac Bio-Forge at V7 + ½ gal Power Plus with side-dress.

All plots were harvested using a Kincaid plot combine and weight, moisture, and test weight measurements were recorded with a weigh bucket system.

Results

Corn Yield (bu/A) Response to Foliar Fertilizers

	Yield (bu/A)
Non-treated	186.70
ST XPow + Zinc + ½ gal Power Plus @ Sidedress	177.88
ST XPow + Zinc + 1 gal Power Plus @ Sidedress	170.24
BioForge Seed Treatment	178.43
BioForge ST + ½ gal of Power Plus @ Sidedress	177.05
BioForge Foliar @ V7	183.17
ST XPow + Zinc +BioForge Foliar @ V7+1/2 gal Power Plus @ Sidedress	177.86
	LSD (10.20)
	NS

Summary

The 2009 growing season was exceptional for the production of corn and soybeans. The limiting factor was below average temperatures during the late summer months. However, the lower temperatures had limited impact with above average yields reported around the region. Results from this study were inconclusive. Given that the products tested are meant to assist the plant in managing stress, the ideal weather conditions did not provide the ideal environment for evaluating their effectiveness.

Corn yields in this study were highly variable. There was no significant difference between treatments. However, there was an observed tendency for lower yields when the Bioforge and Xtra Power products were applied as seed treatments. In all cases this was do to reduced stands in those plots of between 1000 to 2000 plants per acre.

For more information, contact:

John Yost
 OSU Extension Fayette County
 1415 U.S. Rte 22 SW, Suite 100
 Washington Court House, Ohio 43160
 yost.77@osu.edu

