



Torque Study on Corn – 2009

Planted: April 24, 2009
Harvested: September 11, 2009
Soil Type: Uniontown Silt Loam
Population: 32,000 seeds/A.
Product Tested: BECK 5676RR™*
Replications: Two (averaged)

Previous Crop: Corn
Tillage: Fall Chisel / Field Cultivator
Herbicide: Pre: 1.5 qts. Harness Xtra
 1 qt. Atrazine
 Post: 32 oz. Cornerstone
Insecticide: 6 oz. Artic

RAINFALL	
April	7.0 in.
May	5.9 in.
June	4.1 in.
July	7.2 in.
August	1.4 in.
Total	25.6 in.

Purpose: This study was designed to evaluate the use of a pop-up starter fertilizer both with and without Torque™. According to EMD Crop BioScience, Torque™ contains a LCO promoter that enhances root growth and shoot growth for improved nutrient and water uptake. This is similar to the Optimize seed treatment product for soybeans. The starter fertilizer used in this study was All-Plant 7-24-0.

Treatment	Rep 1		Rep 2		Average of 2 Reps	
	Emerged Population	Bushels† Per Acre	Emerged Population	Bushels† Per Acre	Average Emerged Pop.	Average Bu./A.
Starter w/ Torque	31,000	234.0	32,000	228.2	31,500	231.1
Starter	30,667	228.2	30,667	232.8	30,667	230.5
Untreated	30,333	230.9	30,667	229.7	30,500	230.3
Torque	<u>31,333</u>	<u>219.7</u>	<u>30,667</u>	<u>224.3</u>	<u>31,000</u>	<u>222.0</u>
AVERAGE	30,833	228.2	31,000	228.8	30,917	228.5

†Bushels per acre corrected to 15% moisture.

*XL Brand is distributed by Beck's Superior Hybrids, Inc.

Summary: The 2 rep average for both the starter entry and the starter with Torque™ entry provided only minimal yield increases compared to the untreated check. There was less than 4 bushel per acre variation between any of these two entries and the check. Although the entry of Torque™ alone showed significantly lower yields than the check, the average emerged stand for all entries containing Torque™ averaged approximately 750 plants per acre higher than the untreated check.



Gypsum Study – 2009

Planted: May 19, 2009
Harvested: October 12, 2009
Rows: Six 30" rows
Population: 34,200 seeds/A.
Product Tested: BECK 5676HXR™*
Replications: Five (averaged)

Previous Crop: Corn
Tillage: Fall Chisel / Field Cultivator
Herbicide: Pre: 1.5 qts. Harness Xtra
 1 qt. Atrazine
 Post: 32 oz. Cornerstone
Insecticide: 6 oz. Artic

RAINFALL	
April	7.0 in.
May	5.9 in.
June	4.1 in.
July	7.2 in.
August	1.4 in.
Total	25.6 in.

Purpose: Gypsum (Calcium Sulfate) is a by-product from coal power plant scrubbers that can be applied to the soil to provide the nutrients, sulfur and calcium. It is also suggested that gypsum might be able to improve water infiltration by maintaining and improving soil structure. Gypsum was applied at 1 ton per acre in this study. Gypsum does not alter pH like calcium-containing products such as lime.

	Harvest Population	Test† Weight	Percent Moisture	Bushels† Per Acre
NO GYPSUM APPLIED	30,200	59.0	22.4	206.2
GYPSUM APPLIED	30,667	59.0	22.2	205.6

†Bushels per acre and test weight corrected to 15% moisture.

*XL Brand is distributed by Beck's Superior Hybrids, Inc.

Summary: This year's study did not show any differences between the entries treated with gypsum and those that were not treated at the Southern PFR farm. No visual differences were noted. We will continue this study to see if there are any long term benefits or effects from utilizing this product.