

**BECK'S Herbicide Study on Corn – 2010**

**Planted:** April 13, 2010  
**Harvested:** September 1, 2010  
**Rows:** Three 30" rows  
**Soil Type:** Ragsdale Silt Loam  
**Population:** 34,000 seeds/A.  
**Replications:** Two (averaged)

**Previous Crop:** Soybeans  
**Tillage:** Disk Ripper / Field Cultivator  
**Herbicide:** Pre: 2 qts. Atrazine  
 Post: 32 oz. Glyphosate  
**Insecticide:** 6 oz. Artic

RAINFALL	
April	4.0 in.
May	3.1 in.
June	2.5 in.
July	2.5 in.
August	1.4 in.
Total	13.5 in.

**Purpose:** In this study, we are comparing seven common post-emergence herbicides that are being used in Beck's southern marketing area. All post emergence entries were sprayed near the late side of the label limit. This was done to test crop safety as the corn plant begins to determine its yield potential. All entries were kept weed free to ensure that herbicide chemistry was the yield limiting factor in this trial.

Yield Rank	Brand / Growth Stage	Harvest Population	Test <sup>†</sup> Weight	Percent Moisture	Bushels <sup>†</sup> Per Acre	% of Glyphosate Control
<b>SURESTART™ – 11" Corn</b>						
1	BECK 6733HXR™*	34,500	61.0	17.6	265.7	125.6%
2	BECK 6179VT3	33,000	59.1	15.8	215.6	104.1%
3	BECK 5442VT3	32,000	57.8	14.5	223.2	108.3%
4	BECK 5716A3	<u>33,500</u>	<u>57.1</u>	<u>17.7</u>	<u>218.9</u>	<u>104.4%</u>
	AVERAGE	33,250	58.8	16.4	230.9	110.6%
<b>CADET® – V6</b>						
1	BECK 6733HXR™*	35,000	60.6	17.1	227.2	107.4%
2	BECK 6179VT3	31,250	59.6	15.8	218.9	105.6%
3	BECK 5442VT3	32,250	58.0	14.3	218.6	106.1%
4	BECK 5716A3	<u>32,750</u>	<u>57.2</u>	<u>16.4</u>	<u>213.2</u>	<u>101.7%</u>
	AVERAGE	32,813	58.9	15.9	219.5	105.2%
<b>LAUDIS™ – V6</b>						
1	BECK 6733HXR™*	32,000	61.2	16.7	224.1	106.0%
2	BECK 6179VT3	31,750	59.7	15.4	218.3	105.4%
3	BECK 5442VT3	29,500	58.6	14.3	214.3	104.0%
4	BECK 5716A3	<u>32,000</u>	<u>58.0</u>	<u>16.0</u>	<u>214.2</u>	<u>102.2%</u>
	AVERAGE	31,313	59.4	15.6	217.7	104.4%
<b>INTEGRITY™ – Pre-Emerge</b>						
1	BECK 6733HXR™*	30,500	60.9	17.8	231.0	109.2%
2	BECK 6179VT3	31,250	59.3	16.7	217.4	104.9%
3	BECK 5442VT3	33,000	58.0	14.8	214.7	104.2%
4	BECK 5716A3	<u>29,500</u>	<u>58.3</u>	<u>18.4</u>	<u>204.0</u>	<u>97.3%</u>
	AVERAGE	31,063	59.1	16.9	216.8	103.9%
<b>GLYPHOSATE – V6 (CONTROL)</b>						
1	BECK 6733HXR™*	33,000	60.9	16.1	211.5	
2	BECK 6179VT3	32,500	59.4	15.1	207.2	
3	BECK 5442VT3	31,250	59.8	14.5	206.1	
4	BECK 5716A3	<u>33,500</u>	<u>58.0</u>	<u>15.5</u>	<u>209.6</u>	
	AVERAGE	32,563	59.5	15.3	208.6	
<b>STEADFAST® – V6</b>						
1	BECK 6733HXR™*	34,250	61.2	16.4	207.4	98.1%
2	BECK 6179VT3	31,500	59.5	14.7	203.9	98.4%
3	BECK 5442VT3	33,000	59.0	14.0	201.3	97.7%
4	BECK 5716A3	<u>32,500</u>	<u>58.5</u>	<u>15.3</u>	<u>195.7</u>	<u>93.4%</u>
	AVERAGE	32,813	59.6	15.1	202.1	96.9%

## Herbicide Study on Corn – Continued

Yield Rank	Brand / Growth Stage	Harvest Population	Test <sup>†</sup> Weight	Percent Moisture	Bushels <sup>†</sup> Per Acre	% of Glyphosate Control
<b>STATUS<sup>®</sup> – V6</b>						
1	BECK 6733HXR <sup>™</sup> *	32,250	61.1	17.2	187.2	88.5%
2	BECK 6179VT3	33,250	59.7	14.9	194.9	94.1%
3	BECK 5442VT3	33,500	59.5	13.7	192.5	93.4%
4	BECK 5716A3	<u>32,500</u>	<u>58.3</u>	<u>15.2</u>	<u>191.7</u>	<u>91.5%</u>
	AVERAGE	32,875	59.7	15.3	191.6	91.9%

<sup>†</sup>Bushels per acre and test weight corrected to 15% moisture.

\* XL<sup>™</sup> brand seed is distributed by Beck's Superior Hybrids, Inc. <sup>™</sup>XL is a trademark of Pioneer Hi-Bred.

Status<sup>®</sup> is a registered trademark of BASF Corporation. Integrity<sup>™</sup> is a trademark of the BASF Corporation. Laudis<sup>™</sup> is a trademark of Bayer Crop Science.

Steadfast<sup>®</sup> is a registered trademark of DuPont. SureStart<sup>™</sup> is a trademark of Dow AgroSciences. Cadet<sup>®</sup> is a registered trademark of FMC Corporation.

**Summary:** The glyphosate treated entries were used as the check in this study due to the fact that all of the hybrids in this study carried some form of traited glyphosate resistance. Yields for all of the other entries were rated as a percentage of the check so that crop safety could be compared. The average yields for SureStart<sup>™</sup>, Laudis<sup>™</sup>, Cadet<sup>®</sup>, and Integrity<sup>™</sup> entries were equal to or higher than the glyphosate check. Steadfast<sup>®</sup> and Status<sup>®</sup> showed lower yields compared to the check. The average yield loss for Steadfast<sup>®</sup> treated entries was 6.1 Bu./A. while the average yield loss for the Status<sup>®</sup> entries was 17 Bu./A. Remember that "16" family hybrids are particularly sensitive to Sulfonylurea herbicides, as seen by the 13.9 Bu/A. yields loss that 5716A3 incurred when sprayed with Steadfast.

## Gypsum Study – 2010

<b>Planted:</b>	April 20, 2010	<b>Previous Crop:</b>	Corn
<b>Harvested:</b>	September 3, 2010	<b>Tillage:</b>	Disc Ripper / Field Cultivator
<b>Rows:</b>	Six 30" rows	<b>Herbicide:</b>	Pre: 1.5 qts. Lexar 1 qt. Atrazine
<b>Population:</b>	34,000 seeds/A.		Post: 32 oz. Cornerstone
<b>Product Tested:</b>	BECK 6288A3	<b>Insecticide:</b>	6 oz. Artic
<b>Replications:</b>	Various		

RAINFALL	
April	4.0 in.
May	3.1 in.
June	2.5 in.
July	2.5 in.
August	<u>1.4 in.</u>
Total	13.5 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 does not alter pH like calcium-containing products such as lime. Applications of gypsum were made at 1 ton per acre in 2009 and followed up with a second application at various rates in 2010.

	Reps	Harvest Population	Test <sup>†</sup> Weight	Percent Moisture	Bushels <sup>†</sup> Per Acre
UNTREATED	2	33,375	59.1	19.4	219.3
GYPSUM: 1 ton 2009 & 1 ton 2010	2	<u>33,750</u>	<u>59.2</u>	<u>19.4</u>	<u>217.9</u>
AVERAGE		33,563	59.2	19.4	218.6
UNTREATED	2	32,750	59.2	18.9	221.7
GYPSUM: 1 ton 2009 & 0.5 ton 2010	2	<u>33,875</u>	<u>59.6</u>	<u>18.9</u>	<u>221.1</u>
AVERAGE		33,313	59.4	18.9	221.4
UNTREATED	1	32,500	59.3	18.9	222.3
GYPSUM: 1 ton 2009	1	<u>33,750</u>	<u>59.2</u>	<u>18.9</u>	<u>221.1</u>
AVERAGE		33,125	59.3	18.9	221.7

<sup>†</sup>Bushels per acre corrected to 15% moisture.

**Summary:** Similar to last year's results, this year's study did not show any differences between the entries treated with gypsum and those that were not treated at the Southern IN 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.