

BECK'S Soybean Plant Health Study – 2010

Planted: April 28, 2010
Harvested: October 5, 2010
Population: 155,000 seeds/A.
Rows: Six 30" rows
Previous Crop: Corn

Tillage: Field Cultivator
Herbicide: Pre: 1.5 pt Prowl
 Post: 32 oz. Gly Star Plus
Product Tested: BECK 325NR™*

RAINFALL	
April	2.9 in.
May	4.0 in.
June	8.7 in.
July	2.1 in.
August	1.8 in.
Total	19.5 in.

Purpose: This trial is a soybean plant health study where we are evaluating four different foliar compounds, all of which manage ethylene. Ethylene is a toxic gas that is overproduced by a plant under stress conditions. This study evaluates the impact of treatments which are designed to alter the status or sensitivity to ethylene in plants.



StollerUSA's Bio-Forge® is an antioxidant that purges plant cells of excess ethylene in all crops. Bio-Forge makes plants stronger and better able to live through a number of stressful conditions including drought, flood and freeze. Benefits include drought tolerance, increased plant vigor increased sugar transport from leaves to developing pods and seeds, enhanced flowering and pod count, and quicker recovery from herbicide applications.



Invinsa crop stress technology is a sprayable 1-methylcyclopropene and is used to decrease the plants sensitivity to ethylene. By not responding to ethylene, a soybean plant can prevent flower and pod abortion, extend photosynthesis, and prevent premature leaf senescence which can lead to increased yields.



Headline® fungicide is also used in this study as a strobilurin product and as a plant growth regulator. Strobilurin's reduce the amounts of ethylene produced within a plant.

Treatment	Percent Moisture	Bushels [†] Per Acre	Bu./A. Difference	\$ Gross Return [^]	\$ Advantage
Control	12.9	62.4		\$ 583.44	
Invinsa	12.9	65.3	+2.9	\$ 610.09	\$ 26.65
Bio-Forge	12.8	62.8	+0.4	\$ 587.18	\$ 3.74
Experimental (STO-001) [^]	12.9	63.1	+0.7	\$ 590.00	\$ 6.56
Headline	<u>12.9</u>	<u>64.2</u>	<u>+1.8</u>	<u>\$ 600.27</u>	<u>\$ 16.83</u>
AVERAGE	12.9	63.6	+1.5	\$ 594.20	\$ 13.45

[†]Bushels per acre corrected to 13% moisture.

^{*}XL™ brand seed is distributed by Beck's Superior Hybrids, Inc. [™]XL is a trademark of Pioneer Hi-Bred.

[^]Net Return is based on \$9.35/Bu. soybeans.

[^]Experimental product is from StollerUSA

Summary: In this plant health study, Invinsa performed exceptionally well with yield responses near 3 Bu./A. It is noteworthy that Invinsa performed well at the Central IL PFR Center in 2009, where it offered a 5.3 Bu./A. increase.

All other products tested in this study offered marginal yield increases that would more than likely lead to net losses on a return/acre basis. Costs/A. were not calculated in this study due to some products not being commercially available and costs not being established for the 2010 season.