

BECK'S Corn Rootworm Control Study - 2004

Location: A7 plot
Planted: April 17, 2004
Harvested: September 27, 2004
Population: 28,800 seeds/A.
Rows: Four 30" rows
Previous Crop: Corn

Tillage: V-Rip / S-tine
Herbicide: PPI: 2.3 qts. Bicep II Magnum /
 1 qt. Princep
 Post: 3 oz. Callisto / 1 qt Aatrex /
 3 oz. Hornet
Insecticide: Various

RAINFALL	
April	1.2 in.
May	5.2 in.
June	7.4 in.
July	2.8 in.
August	<u>3.5 in.</u>
Total	20.1 in.

Purpose: In this study we are comparing three methods for controlling corn rootworm in a corn after corn environment: YGRW transgenic corn, Aztec granular insecticide, and Poncho 1250 seed-applied insecticide. We also conducted an additional test on BECK 5166 where we applied a new natural seed-applied product that may have corn rootworm activity as well as micronutrients for feeding the corn seedling (Yield Enhancer & Exp. OIP). Zinc was also tested as a seed-applied nutrient to enhance performance in stress environments.

Brand-Hybrid	Treatment	Harvested Population	Test Weight	Percent Moisture	Bushels* Per Acre
BECK 5959	Poncho 1250	26,500	53.0	19.6	240.5
BECK 5737CL	Poncho 1250	28,000	57.5	18.4	229.8
BECK 5322	Poncho 1250	<u>27,000</u>	<u>55.0</u>	<u>17.1</u>	<u>234.9</u>
	AVERAGE	27,167	55.2	18.4	235.1
BECK 5959	FaSTart & Aztec	27,000	54.0	18.8	238.6
BECK 5737CL	FaSTart & Aztec	27,000	57.5	18.2	230.3
BECK 5322	FaSTart & Aztec	<u>30,500</u>	<u>55.5</u>	<u>17.7</u>	<u>228.8</u>
	AVERAGE	28,167	55.7	18.2	232.6
BECK 5959	FaSTart	27,000	54.0	18.7	237.5
BECK 5737CL	FaSTart	28,500	57.0	18.4	228.3
BECK 5322	FaSTart	<u>30,000</u>	<u>55.0</u>	<u>17.3</u>	<u>231.4</u>
	AVERAGE	28,500	55.3	18.1	232.4
BECK 5959RW	FaSTart	30,000	54.5	18.3	224.3
BECK 5737RWCL	FaSTart	30,000	55.5	18.4	225.5
BECK 5322RW	FaSTart	<u>30,500</u>	<u>57.0</u>	<u>17.3</u>	<u>234.3</u>
	AVERAGE	30,167	55.7	18.0	228.0
BECK 5166		Harvested Population	Test Weight	Percent Moisture	Bushels* Per Acre
Maxim XL + Poncho 1250		27,500	56.0	16.1	251.0
Maxim XL + Poncho 1250		<u>27,000</u>	<u>55.5</u>	<u>16.9</u>	<u>242.8</u>
	AVERAGE	27,250	55.8	16.5	246.9
Maxim XL + Zinc + Aztec		28,000	55.0	16.0	241.0
Maxim XL + Zinc + Aztec		<u>28,500</u>	<u>55.0</u>	<u>16.6</u>	<u>240.7</u>
	AVERAGE	28,250	55.0	16.3	240.9
Maxim XL + Aztec		28,000	55.5	16.3	238.6
Maxim XL + Aztec		<u>25,000</u>	<u>55.5</u>	<u>16.9</u>	<u>239.8</u>
	AVERAGE	26,500	55.5	16.6	239.2
Maxim XL + Yield Enhancer + Exp OIP		29,000	56.0	15.9	223.5
Maxim XL + Yield Enhancer + Exp OIP		<u>23,500</u>	<u>55.0</u>	<u>16.9</u>	<u>223.8</u>
	AVERAGE	26,250	55.5	16.4	223.7

*Bushels per acre corrected to 15% moisture.

Summary: In this plot we had minimal rootworm pressure and therefore saw no real benefit to the RW transgenic event. Poncho 1250 however, did produce the highest yield even though it had a lower population. The Yield Enhancer + Exp. OIP (Optimum Insect Protection) product did not appear to provide benefit, and the Zinc treated seed yielded comparable to the seed without the Zinc: 1.7 bushels per acre advantage and slightly higher population.