

BECK'S Zone-Till vs. Conv.-Till Continuous Corn Study – 2004

(Also Seed-Applied Insecticide & Planter Meter Study)

Location: E5 – E6 plots
Planted: April 8, 2004
Harvested: September 17, 2004
Rows: Four 30" rows
Soil Type: Crosby / Brookston / Miami
Population: 30,000 seeds/A.
Previous Crop: Corn

Herbicide: Pre: 2.3 qts. Bicep II Magnum
 1 qt. Princep
 Post: 3 oz. Callisto
 1 qt. Aatrex

Insecticide: Aztec
Tillage: Zone-Till = 7" wide with 3 coulters
 Conv.-Till = V-Rip & S-Tine
Fertilizer: Same as listed on page 30

RAINFALL	
April	1.2 in.
May	5.2 in.
June	7.4 in.
July	2.8 in.
August	3.5 in.
Total	20.1 in.

Purpose: We designed this study to evaluate three primary topics: Zone-Till vs. Conventional in continuous corn, seed-applied insecticides (SAI) vs. YGRW technology, and planter meters (Kinze vs. Precision Planting).

Planting Order	Brand-Hybrid	Emerged Population	Harvested Population	Doubles Per 1/1,000 Acre	Gaps Per 1/1,000 Acre	Test Weight	Percent Moisture	Bushels* Per Acre
<u>ZONE-TILL STUDY</u>								
Precision	BECK 5322	24,269	28,500	0.25	2.38	56.1	22.1	203.6
Kinze	BECK 5322	29,123	26,500	0.38	0.13	56.5	21.5	203.5
Precision	BECK 5322 Poncho 1250	27,007	24,750	0.13	1.63	56.3	21.8	207.5
Kinze	BECK 5322 Poncho 1250	28,376	28,000	0.25	0.00	55.9	22.3	214.1
Precision	BECK 5322RW	29,745	29,250	0.38	0.50	56.2	21.5	210.7
Kinze	BECK 5322RW	28,501	28,000	0.50	0.00	56.5	21.4	217.8
Precision	BECK 5166RW	28,003	28,750	0.50	0.75	56.9	20.2	217.2
Kinze	BECK 5166RW	28,625	28,750	0.13	0.25	56.5	21.0	222.9
Precision	BECK 5166 Poncho 1250	28,127	27,750	0.25	0.50	56.4	21.1	221.5
Kinze	BECK 5166 Poncho 1250	27,629	27,750	0.25	0.13	56.8	20.7	216.5
Precision	BECK 5166	28,625	27,250	0.38	1.13	56.6	20.9	215.6
Kinze	BECK 5166	<u>26,012</u>	<u>28,250</u>	<u>0.00</u>	<u>0.25</u>	<u>56.3</u>	<u>21.2</u>	<u>216.2</u>
	AVERAGE	27,837	26,333	0.28	0.63	56.3	21.6	208.4
<u>CONVENTIONAL STUDY</u>								
Kinze	BECK 5166	29,621	31,000	0.50	0.63	57.0	19.8	214.2
Precision	BECK 5166	30,243	30,500	0.25	0.00	57.2	20.1	228.8
Kinze	BECK 5166 Poncho 1250	30,741	30,000	1.38	0.38	57.5	19.2	231.3
Precision	BECK 5166 Poncho 1250	29,496	29,750	0.00	0.13	57.4	19.2	224.9
Kinze	BECK 5166RW	29,372	30,000	0.38	0.63	57.0	20.1	221.1
Precision	BECK 5166RW	31,363	30,500	0.75	0.00	57.5	19.3	214.1
Kinze	BECK 5322RW	31,985	29,500	0.50	0.25	57.3	19.7	222.2
Precision	BECK 5322RW	29,745	30,750	0.63	0.00	57.3	19.5	218.7
Kinze	BECK 5322 Poncho 1250	30,990	31,000	0.50	0.38	56.8	20.2	217.9
Precision	BECK 5322 Poncho 1250	30,865	30,500	0.50	0.00	57.1	20.2	221.5
Kinze	BECK 5322	30,616	30,500	0.63	0.38	57.2	19.9	215.1
Precision	BECK 5322	<u>30,865</u>	<u>29,500</u>	<u>0.63</u>	<u>0.38</u>	<u>57.1</u>	<u>19.6</u>	<u>208.0</u>
	AVERAGE	30,492	30,333	0.55	0.26	57.7	18.7	217.3
<u>PLANTER METER AVERAGES</u>								
Kinze		29,299	28,542	0.45	0.28	57.0	20.2	213.6
Precision		29,029	28,125	0.38	0.61	57.0	20.1	212.1

Tillage Summary: This year in a corn after corn environment, the conventional-till out performed the zone-till in several areas: higher yield, lower moisture, higher test weight and more harvested plants.

Planter Meter Summary: Both the Kinze and Precision Planting meters produced nearly the same results in population. However, the Kinze meter had about half of the gaps that the Precision meter had (0.28 vs. 0.61 gaps per 1/1,000 acre), and slightly more doubles (0.45 vs. 0.38 doubles per 1/1,000 acre). A gap is seed that is planted more than sixteen inches apart and a double is seed that is planted closer than two inches apart. The yield differed by only 1.5 bushels per acre in favor of the Kinze meter.

BECK'S Zone-Till vs. Conv.-Till Continuous Corn Study – Cont. (Also Seed-Applied Insecticide & Planter Meter Study)

Brand-Hybrid	Product Tested	Harvested Population	Test Weight	Percent Broken Stalks	Percent Moisture	Bushels* Per Acre
SAI AND RW RESULTS						
BECK 5166	Poncho 1250	28,813	57.0	0.0	20.0	223.5
BECK 5322	Poncho 1250	<u>28,563</u>	<u>56.5</u>	<u>0.0</u>	<u>21.1</u>	<u>215.3</u>
AVERAGE		28,688	56.8	0.0	20.6	219.4
BECK 5166RW	YGRW / FaStart	29,500	57.0	0.0	20.1	218.8
BECK 5322RW	YGRW / FaStart	<u>29,375</u>	<u>56.8</u>	<u>0.0</u>	<u>20.5</u>	<u>217.4</u>
AVERAGE		29,438	56.9	0.0	20.3	218.1
BECK 5166	Sure Gro only	29,250	56.8	0.0	20.5	218.7
BECK 5322	FaStart	<u>28,750</u>	<u>56.7</u>	<u>0.0</u>	<u>20.8</u>	<u>207.6</u>
AVERAGE		29,000	56.8	0.0	20.7	213.2

*Bushels per acre corrected to 15% moisture.

SAI and RW Summary: Both the Poncho 1250 treated and YGRW hybrids yielded 5-6 bushels per acre more than the hybrids which only had FaStart or Sure Gro fungicide only.

BECK'S 7.5" Row Study on Corn - 2004

Location:	300-5 N. plot	Previous Crop:	Corn
Planted:	April 27, 2004	Tillage:	V-Rip / DMI S-tine
Harvested:	November 1, 2004	Herbicide:	2.3 qts. Bicep II Magnum
Population:	75,000 seeds/A.	Insecticide:	1.0 qt. Princep
Soil Type:	Genesee Silt Loam		None

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: A study to determine how effectively BECK 5229RW and 5959RW would perform when drilled in 7.5 inch rows at this high population in a corn after corn environment.

Brand-Hybrid	Harvested Population	Test Weight	Percent Broken Stalks	Percent Moisture	Bushels* Per Acre
BECK 5959RW	65,000	53.5	23.1	17.6	252.1
BECK 5229RW	60,000	53.0	31.7	16.7	216.8

Summary: Last year's results produced high yield and minimal stalk lodging on an early harvest date. This year, we harvested over a month later and encountered more stalk lodging pressure as well as high yields.

*Bushels per acre corrected to 15% moisture.

