

On-Farm Comparison Results BOWMAN

Nebraska Soybean & Feed Grains Profitability Project

Years:	2003-2006
Title:	Corn Insecticide & Seed Treatment Evaluation
Crop:	Corn
NSFGPP Operator:	Ron Bowman, Dodge County
Private Industry Cooperator:	Jerry Mulliken
Objective:	To determine & document the effect of using bio-engineered corn hybrids on the profitability of producing corn.
Treatments:	<u>2003</u> - Pioneer 33B51 Bt vs. Pioneer 33B55 Bt with Herculex. <u>2004</u> - 4 tests: (3) Pioneer Hybrids with Poncho 1250 vs. Force & (1) Poncho 250 vs. no treatment. <u>2005</u> - Pioneer 31A13 with Poncho 1250 vs. Aztec. <u>2006</u> - Pioneer 31A13 with Poncho 1250 vs. 31A13 with no treatment (corn following soybeans). <u>2006</u> - Pioneer 33B51 with Poncho 1250 vs. Pioneer 33B53 CRW (corn following corn).

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Results:		2004		
		Stenvers Place - (Pio 33B51) (dryland)		
<u>Variable</u>		<u>No Treatment</u>	<u>Poncho 250</u>	<u>Prob>/T/</u>
Yield, bu/ac at 15%		190	190	0.864 ns
Moisture, %		15.4	15.6	0.440 ns
Plants, 1000/ac		20.0	20.3	0.272 ns
Cost/ac		\$0.00	\$7.33	---

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Results: 2004

West of Terra - (Pio 33B51)

<u>Variable</u>	<u>Force (3.6 lbs/ac)</u>	<u>Poncho 1250</u>	<u>Prob>/T/</u>
Yield, bu/ac at 15%	194	191	0.474 ns
Moisture, %	30.4	30.5	0.727 ns
Cost/ac	\$11.95	\$14.66	---

Home Place 60 - (Pio 31A13)

<u>Variable</u>	<u>Force (3.6 lbs/ac)</u>	<u>Poncho 1250</u>	<u>Prob>/T/</u>
Yield, bu/ac at 15%	197	204	0.0256 **
Moisture, %	16.4	20.8	0.0012 ***
Cost/ac	\$11.95	\$14.66	---

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Results:

2004

Lund Bottom (Pio 33R78)

Variable

Force (3.6 lbs/ac)

Poncho 1250

Prob>/T/

Yield, bu/ac at 15%

200

207

<0.0001 ***

Moisture, %

15.6

15.9

0.2065 ns

Plants, 1000/ac

23.2

22.6

0.4326 ns

Cost/ac

\$11.95

\$14.66

Results:

2005

(Pio 31A13)

Variable

Aztec

Poncho 1250

Prob>/T/

Yield, bu/ac at 15.5%

167

180

0.0007 **

Moisture, %

20.6

21.3

0.350 ns

Cost/ac

\$12.93

\$12.00

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Results: 2006

(Pio 31A13)

<u>Variable</u>	<u>No Treatment</u>	<u>Poncho 1250</u>	<u>Prob>/T/</u>
Yield, bu/ac at 15.5%	210	212	0.192 ns
Moisture, %	29.9	29.7	0.265 ns
Test wt, lbs/bu	67.5	67.3	0.113 ns
Cost/ac	---	\$10.23	---

Planting/Harvest Date: 4-20-06 / 9-20-06

<u>Variable</u>	<u>33B51 w/Poncho 1250</u>	<u>33B53 CRW</u>	<u>Prob>/T/</u>
Yield, bu/ac at 15.5%	170	177	0.009 ***
Moisture, %	15.1	15.2	0.099 *
Cost/ac	\$14.91	\$14.91	---

Planting/Harvest Date: 4-26-06 / 11-2-06

Continuous corn for over ten years. The field historically has high rootworm populations.

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Summary: The two hybrids performed similarly in 2003 in terms of grain yield & moisture at harvest. In 2004, the use of Poncho resulted in higher grain yields at 2 of the 4 sites tested. Grain moisture at harvest was higher due to Poncho at one of those sites. In 2005, grain yield was higher where Poncho was used compared to Aztec. In 2006, Poncho 1250 treatment with Pio 31A13 did not affect corn performance in one study. In another study, Pioneer 33B53 CRW gave a higher grain yield than Pioneer 33B51 with Poncho 1250; however, grain moisture was also slightly higher.