

### FINAL Nebraska Soybean & Feed Grains Profitability Project FINAL

**Years:** 2008-2010

Title: Insect Resistant Hybrids

**Crop:** Corn

**NSFGPP Operator:** Bob Bartek, Saunders County

Private Industry Cooperator: Keith Glewen

**Objective:** To determine & document the effect of

growing corn hybrids with insect tolerant traits on the profitability of corn production in a corn-soybean

rotation.

*Treatments:* 2008: No insect resistance vs.

Corn borer resistant vs.

Corn rootworm resistant (hybrid)

2009 & 2010: Conventional vs. RR vs.

VT3 hybrid





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Results: 2008 Insect Resistance

	LG2614RR	LG2614RRBT	LG2614VT3	
	<u>None</u>	<u>Borer</u>	<b>Rootworm</b>	Prob>F
Yield, bu/ac @ 15.5%	144	148 **	170 ***	<.0001 ***
Moisture, %	15.1 **	15.3	15.4	0.0107 **
Test Wt, lbs/bu	61.6 **	62.1	61.8	0.0330 **
Plants, 1000/ac	21.9	22.8	23.3	0.0782 *
Cost/ac	\$48.34	\$53.40	\$60.69	

Planting Date: 5/7/08 Harvesting Date: 11/21/08





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Results: 2009	Resistance			
	LG2620	LG2620RR	LG2620VT3	
	<u>Conv</u>	<u>RR</u>	<u>Insect</u>	Prob>F
Yield, bu/ac @ 15.5%	203	194 ***	210 **	0.0001 ***
Moisture, %	16.8	17.1 **	17.7 ***	<0.0001 ***
Test Wt, Ibs/bu	56.2	56.3	56.1	0.085 *
Plants, 1000/ac	21.5	22.7	22.0	0.158 ns
Cost/ac (Seed)	\$34.63	\$52.18	\$72.75	
Planting Date: 5/12/09	Harvest Date: 1	1/20/09		





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Results: 2010	Resistance			
	LG2620	LG2620RR	LG2620VT3	
	<u>Conv</u>	<u>RR</u>	<u>Insect</u>	Prob>F
Yield, bu/ac @ 15.5%	178	174	186 **	0.0050 ***
Moisture, %	13.5	13.5	13.5	0.508 ns
Test Wt, Ibs/bu	58.2	58.4	58.2	0.656 ns
Plants, 1000/ac	24.0	24.0	23.6	0.689 ns
Cost/ac	\$42.45	\$52.83	\$69.40	

Planting Date: 5/17/10 Harvest Date: 11/1/10

Summary: Seed with corn borer resistance produced a higher yield than the non-Bt hybrid; however, rootworm resistance produced a higher yield. The non-Bt corn was slightly drier at harvest and had the lowest test weight in 2008.

In 2009, the Roundup Ready hybrid produced less yield than the conventional hybrid; however, the hybrid with RR and Insect resistance produced the highest yield. The VT3 hybrid had significantly higher moisture at harvest.

In 2010, the VT3 hybrid produced significantly more corn than the other two hybrids.

