



## Corn Trait / Population Study – 2008

**Planted:** April 30, 2008  
**Harvested:** September 25, 2008  
**Soil Type:** Silt Loam  
**Population:** Various  
**Rows:** Four 30" rows

**Previous Crop:** Soybeans  
**Tillage:** Chisel  
**Herbicide:** Degree Xtra  
 Roundup Original Max  
**Insecticide:** Aztec

RAINFALL	
April	1.88 in.
May	6.41 in.
June	4.44 in.
July	7.05 in.
August	0.91 in.
Total	20.69 in.

**Purpose:** Improved genetics and insect protection traits may allow farmers to improve yields by simply planting higher populations. This study compares RR to VT3 hybrids at 32,000, 34,000, 36,000 and 38,000 populations.

Brand	Target Population	Harvested Population	Percent Moisture	Bushels* Per Acre	\$ Net Return Per Acre^	\$/A. Advantage vs. 32,000^^	Yield Advantage VT3
BECK 5555RR	32,000	32,000	26.3	238.5	\$1,119.65		
BECK 5555RR	34,000	33,000	26.2	243.5	\$1,141.17	+\$21.52	
BECK 5555RR	36,000	35,000	26.1	246.6	\$1,152.99	+\$33.34	
BECK 5555RR	38,000	38,000	<u>25.8</u>	<u>236.3</u>	\$1,097.95	-\$21.70	
AVERAGE			26.1	241.2			
BECK 5555VT3	32,000	33,000	27.6	238.1	\$1,112.67		
BECK 5555VT3	34,000	35,000	26.7	243.0	\$1,132.61	+\$19.94	
BECK 5555VT3	36,000	36,000	26.2	252.1	\$1,172.97	+\$60.30	
BECK 5555VT3	38,000	37,000	<u>26.5</u>	<u>242.5</u>	\$1,120.36	+\$7.69	
AVERAGE			26.8	243.9			+2.7
BECK 5684RR	32,000	30,000	25.1	218.0	\$1,102.65		
BECK 5684RR	34,000	32,000	25.4	245.5	\$1,151.11	+\$48.46	
BECK 5684RR	36,000	36,000	25.4	260.4	\$1,222.09	+\$119.44	
BECK 5684RR	38,000	37,000	<u>25.7</u>	<u>261.4</u>	\$1,223.32	+\$120.67	
AVERAGE			25.4	246.3			
BECK 5684VT3	32,000	24,000	25.4	209.8	\$971.32		
BECK 5684VT3	34,000	28,000	25.4	227.2	\$1,053.33	+\$82.01	
BECK 5684VT3	36,000	30,000	25.4	246.9	\$1,146.82	+\$175.50	
BECK 5684VT3	38,000	32,000	<u>25.4</u>	<u>258.2</u>	\$1,198.52	+\$227.20	
AVERAGE			25.4	235.5			-10.8
BECK 5444RR	32,000	32,000	26.0	233.5	\$1,094.68		
BECK 5444RR	34,000	33,000	26.0	235.4	\$1,100.87	+\$6.19	
BECK 5444RR	36,000	36,000	25.8	235.9	\$1,099.56	+\$4.88	
BECK 5444RR	38,000	38,000	<u>25.3</u>	<u>234.2</u>	\$1,087.27	-\$7.41	
AVERAGE			25.8	234.8			
BECK 5444VT3	32,000	33,000	27.1	237.4	\$1,113.05		
BECK 5444VT3	34,000	34,000	26.6	240.2	\$1,122.26	+\$9.21	
BECK 5444VT3	36,000	36,000	25.7	250.4	\$1,168.62	+\$55.57	
BECK 5444VT3	38,000	37,000	<u>25.7</u>	<u>246.4</u>	\$1,144.20	+\$31.15	
AVERAGE			26.3	243.6			+8.8
BECK 5244RR	32,000	30,000	24.8	224.7	\$1,050.79		
BECK 5244RR	34,000	33,000	24.3	222.3	\$1,035.17	-\$15.62	
BECK 5244RR	36,000	35,000	24.3	222.5	\$1,032.39	-\$18.40	
BECK 5244RR	38,000	38,000	<u>23.9</u>	<u>216.2</u>	\$997.33	-\$53.46	
AVERAGE			24.3	221.4			
BECK 5244VT3	32,000	34,000	25.0	233.5	\$1,093.41		
BECK 5244VT3	34,000	33,000	25.0	238.3	\$1,112.69	+\$19.28	
BECK 5244VT3	36,000	33,000	25.0	238.9	\$1,111.08	+\$17.67	
BECK 5244VT3	38,000	29,000	<u>24.0</u>	<u>235.9</u>	\$1,093.41	0.00	
AVERAGE			24.8	236.7			+15.3

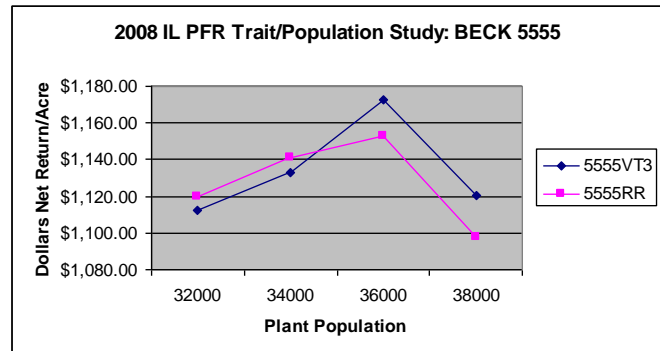
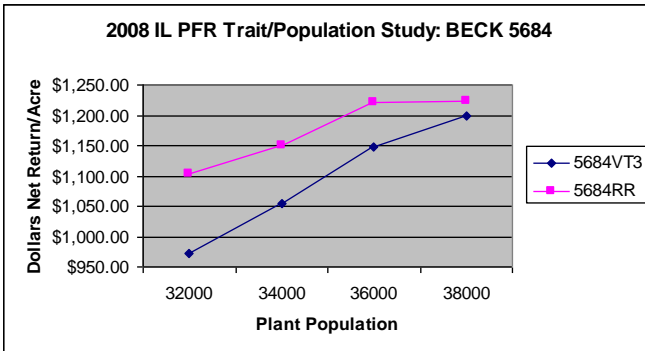
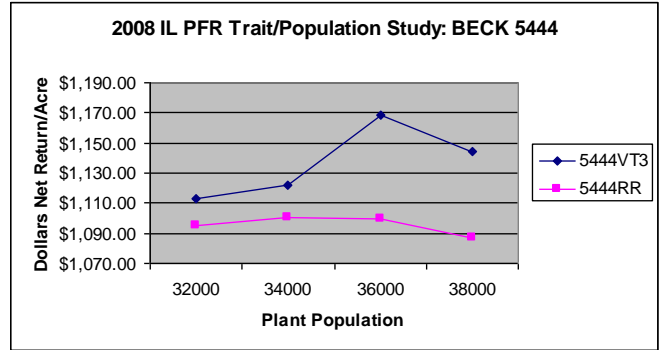
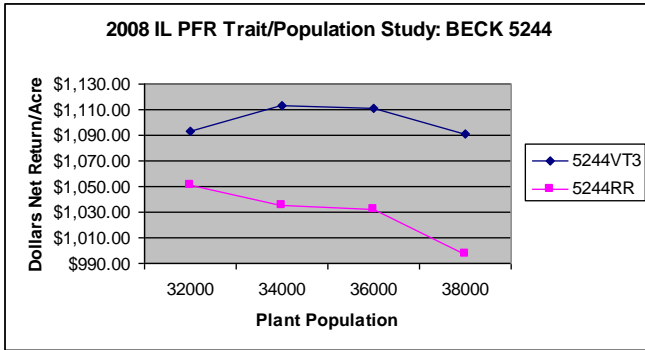
\*Bushels per acre corrected to 15% moisture.

^Net return/acre calculated at yield times \$5.00/Bu. less \$14.00/A. insecticide cost (if applied), less 2008 seed corn prices with typical discounts.

^^The \$/A. Advantage versus 32,000 population shows the difference in return versus the return for 32,000 planting population.



## Corn Trait / Population Study – Continued



**Summary:** In this trait planting population study, we found that YieldGard VT3 outperformed Roundup Ready versions (RR) with every hybrid except BECK 5684 genetics. BECK 5684VT3 experienced a very high incidence of silk balling and arrested ear development, which led to lower yields than the RR version. Optimum economic plant populations were 32,000 for BECK 5244RR, 34,000 for BECK 5444RR and BECK 5244VT3, 36,000 for BECK 5444VT3 and BECK 5555RR, and 38,000 for BECK 5684RR and BECK 5684VT3. Even with the arrested ears of BECK 5684VT3, all VT3 hybrids out-yielded the RR versions by 4.0 Bu./A. on average. In addition, the yield and economic advantage for planting above 32,000 could be seen in nearly every test. The exceptions were seen in some of the Roundup Ready versions (e.g. BECK 5244RR) where higher populations did not bring higher economic returns.



## Torque™ Corn Study – 2008

**Planted:** April 24, 2008  
**Harvested:** September 24, 2008  
**Rows:** Six 30" rows  
**Seeding Rate:** 34,500 seeds/A.  
**Replications:** Three (averaged)

**Previous Crop:** Soybeans  
**Tillage:** Chisel  
**Herbicide:** Pre: Degree Xtra  
 Post: Roundup Original Max  
**Product Tested:** BECK 5244VT3

RAINFALL	
April	1.88 in.
May	6.41 in.
June	4.44 in.
July	7.05 in.
August	0.91 in.
<b>Total</b>	<b>20.69 in.</b>

**Purpose:** To evaluate the product Torque from EMD Crop Biosciences, Inc. Torque contains LCO Promoter Technology® for corn and is an in-furrow treatment that is applied at 1 pint per acre through seed firmers on the planter. Torque is a crop enhancing technology focused on improving plant health and yield. LCO Promoter Technology® is a unique molecule that enhances growth in both root and shoots so plants emerge stronger and healthier.

Product	Test* Weight	Percent Broken Stalks	Percent Moisture	Bushels* Per Acre	Cost of Treatment	Net Return	Advantage
Torque	57.0	1.0	28.0	248.1	\$9.18	\$1,231.32	+\$0.32
Control	57.3	1.0	28.3	246.2	----	\$1,231.00	----
<b>AVERAGE</b>	<b>57.2</b>	<b>1.0</b>	<b>28.2</b>	<b>247.2</b>			

\*Bushels per acre and test weight corrected to 15% moisture. Corn price = \$5.00/Bu. Torque and LCO Promoter Technology are registered trademarks of EMD Crop Bioscience, Inc.

**Summary:** Torque applications averaged 1.9 Bu./A. better than the untreated control over three replications. With an average cost of treatment at \$9.18 per acre, Torque just paid for itself and returned \$0.32 per acre.