

Upper Midwest Edition

# FIR<sup>ST</sup>

Farmer's Independent Research of Seed Technologies

Evaluating Corn Hybrids and Soybean Varieties



**Evaluation guide of corn hybrids and soybean varieties featuring independent on-farm yield tests**



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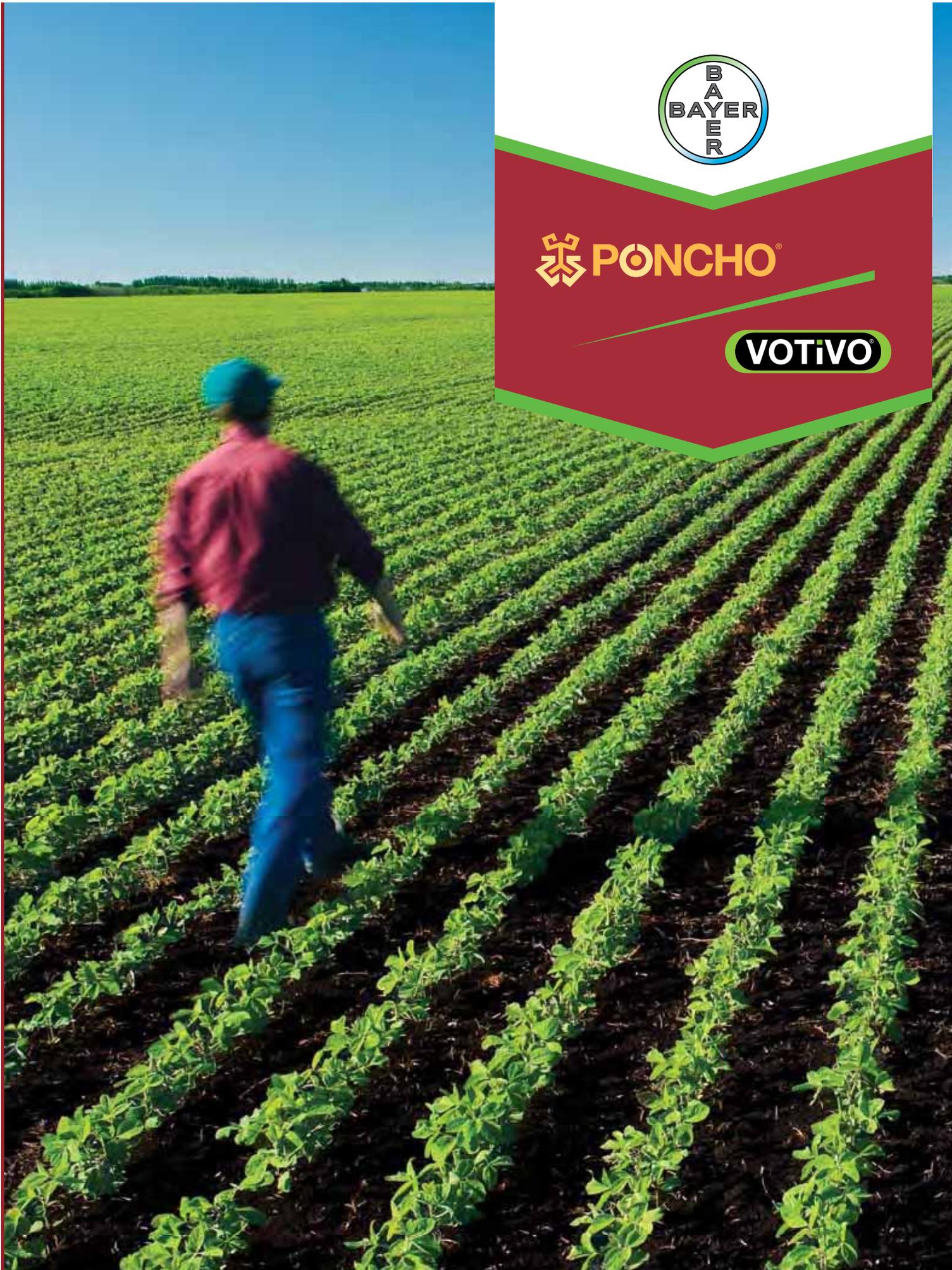
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# How to Interpret F.I.R.S.T. Trials

**F**armer's Independent Research of Seed Technologies (F.I.R.S.T.) is an independent corn and soybean yield testing service. We compare product yield performance in grower fields across 15 states: Delaware, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota and Wisconsin. In 2012, we compared yields of 914 corn grain and 679 soybean products. In total, more than 72,486 plot strips spread across 298 farms were established.

Test locations are selected to represent the geographic diversity within a region. Ideal sites have uniform, well-drained soils with farmer hosts using production practices typical for the area.

Sponsoring seed companies submit their best products to desired test regions. They provide high-quality seed from commercial lots and fees to enter F.I.R.S.T. seed tests. Exceptions are check products (denoted by CK), chosen by F.I.R.S.T. managers to bridge results between early- and full-season tests, and Grower Comparison products (denoted by GC), provided by our host farmers for their knowledge.

F.I.R.S.T. managers package, randomize, and plant seeds into host grower fields using slightly modified commercial planting equipment. Plot strips are 45' long and 10' wide (four 30" corn rows and soybean rows of either seven 15" rows or four 30" rows). Typically the center two corn rows and all

soybean rows are used to measure yield.

Regions have been established to provide similarity by geography and crop maturity. Corn and soybean products within a 10-day and 0.7-group maturity range, respectively, are pooled into a single all-season test or split into early- and full-season tests depending upon entry volume. All seed products entered in a region are seeded at each of six corn and four soybean locations within the region. Products are replicated three times per test and grouped in blocks from front to back and side to side. This provides more precision in yield measurement and flexibility should a disruptive event require elimination of non-uniform plot areas.

Soybean cyst nematode (SCN) levels are reported for most soybean test sites. Egg counts are taken per 100 ml of soil. Sites with up to 2,000 eggs, 2,000 to 12,000 eggs or more than 12,000 eggs are classified as low, medium or high populations, respectively.

F.I.R.S.T. regional summaries are designed to identify consistently high yielding products from multiple locations. Product performance is averaged across all locations within a region. Regional summary tables rank the Top 30 corn and Top 20 soybean products on yield within a region. Grain yield, grain moisture and lodging are averaged from all locations and presented along with individual site yield results.

Regional summaries include least significant difference (LSD) for the region and individual site

## Footnotes and Abbreviations:

Yields in **bold** are significantly above test average.

Brands in *italics* exceed the test's grain moisture limit.

Brand names ending with GC are grower chosen comparison products.

Brand names ending with CK are check products in both early- and full-season tests.

# identifies rejected results omitted from summary

‡ identifies locations with 2 replications

§ identifies United Soybean Board sponsored entries

^ G2® brand seed is distributed by NuTech Seed, LLC. HPT® brand seed is distributed by Hoegemeyer Hybrids, Inc. RPM® brand seed is distributed by Doebler's PA Hybrids, Inc. Supreme EX® brand seed is distributed by Seed Consultants, Inc. VPMMaxx® brand seed is distributed by AgVenture, Inc. XL® and Phoenix® brand seed is distributed by Beck's Superior Hybrids. Curry®, G2®, HPT®, RPM®, Supreme EX®, VPMMaxx® and XL® are registered trademarks of DuPont Pioneer.

ns – not significant

SCN Resistance: S – Susceptible, MR – Moderately Resistant, R – Resistant.

results. Statistically, the LSD value is the difference needed between two products to accurately state that one product is better than another 9 times out of 10 (90% probability).

F.I.R.S.T. manager comments are provided for each test site. Comments provide insight regarding test conditions such as weather patterns, plant health and any other factors that may have impacted product results.

For more details or additional results visit [www.firstseedtests.com](http://www.firstseedtests.com).

## Technologies

3111	Agrisure® Viptera™ 3111
3122	Agrisure® 3122
4011	Agrisure® 4011
3000GT	Agrisure® 3000GT
AM1	Optimum® AcreMax® 1
AMX	Optimum® AcreMax® Xtra
CB/LL	Agrisure® CB/LL
CB/LL/RW	Agrisure® CB/LL/RW
Conv	Conventional, non-GMO
GT	Agrisure® GT
GT/CB/LL	Agrisure® GT/CB/LL
HX	HERCULEX® I Insect Protection
HXT	HERCULEX® XTRA Insect Protection
LL	LibertyLink® herbicide tolerance
OI	Optimum® Intrasect™
RR	Roundup Ready® Soybeans
RR Lo Lin	Roundup Ready® Low Linolenic acid soybeans
RR2	Roundup Ready® Corn 2
RR2Y	Genuity® Roundup Ready 2 Yield®
STS	STS® herbicide tolerance
STX	SmartStax®
STX-R	SmartStax® Refuge Corn Blend
VT2P	Genuity® VT Double PRO™
VT2P-R	Genuity® VT Double PRO® RIB Corn Blend
VT3	YieldGard VT Triple®
VT3P	Genuity® VT Triple PRO™
VT3P-R	Genuity® VT Triple PRO® RIB Corn Blend

## Seed Treatments

A	Allegiance®
Ac	Acceleron®
Am	ApronMaxx®
Ap	Apron XL®
Avc	Avicta® Complete Corn
C2, C5, C1	Cruiser® @ 0.25, 0.5 and 1.25 mg ai/seed
Ce	Cruiser® Extreme
CMB	CruiserMaxx® Beans
D	Dynasty®
Es	Escalate®
Ex	Excalibre™
G	Gaicho®
I	Inovate™ System
Mq	Maxim® Quattro
Mx	Maxim® XL
O	Optimize®
P2, P5, P1	Poncho® at 0.25, 0.5 and 1.25 mg ai/seed
Pr	Protinus™
R	Raxil®
Rc	Rancona®
S	Stamina®
SDPI	Servo™ DPI
SS+	SoyShield™ Plus
SStd	SureStand™
T	Trilex®
T2	Trilex® 2000
T6	Trilex® 6000
Th	thiabendazole
V	VOTIVO®
Z	zinc

## Upper Midwest Edition

Covering Minnesota and the Dakotas

Other editions available at [www.firstseedtests.com/printmedia.htm](http://www.firstseedtests.com/printmedia.htm)

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## Additional F.I.R.S.T. Data Available

There are four print editions. Each edition contains F.I.R.S.T. results from a different geography. Visit [www.firstseedtests.com](http://www.firstseedtests.com), click Media and Print Media to download or view all four editions or type [www.firstseedtests.com/printmedia.htm](http://www.firstseedtests.com/printmedia.htm) into your browser.

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# Season Overview Statistics



## Corn Yield

	2012 vs. 2011		(bu. per acre)				
	% change	bu. (+/-)	2012	2011	2010	2009	2008
<b>Minimum</b>	4.9	0.3	6.4	6.1	30.1	84.6	18.8
<b>Average</b>	-8.8	-15.8	163.0	178.8	191.9	202.4	191.9
<b>Maximum</b>	3.5	9.8	286.8	277.0	299.6	310.6	281.0

## Soybean Yield

	2012 vs. 2011		(bu. per acre)				
	% change	bu. (+/-)	2012	2011	2010	2009	2008
	-72.2	-17.1	6.6	23.7	4.4	20.7	18.3
	-13.5	-7.7	49.3	57.0	59.6	54.0	51.9
	2.4	2.2	94.3	92.1	91.2	80.3	90.9

Data from all F.I.R.S.T. plots tested nationally during that year. Any rejected data was eliminated from these figures.

The 2012 growing season is one most farmers will never forget. Overall, corn averaged lower yields than any year since 2008. Good yields were comparable to most good years. In these areas, growers achieved their most profitable year ever by selling high-yielding crops with commodity prices at all-time-high levels. Other growers would like to forget that the drought of 2012 happened. Crop yields were very low but, fortunately, the high commodity prices helped soften the blow a bit.

Corn yields were outstanding in portions of North Dakota, South Dakota, Minnesota, northern Iowa and Pennsylvania. These areas had either timely rainfalls or soils with excellent water-holding capacities to deliver the yield. Ample summer heat sped along crop maturation too. Harvest at Minnesota and northern Iowa F.I.R.S.T. locations was completed well ahead of normal. With the exception of some Minnesota locations where saturated spring soils hampered seedling establishment, yield data quality was outstanding. And I am still impressed by the Pennsylvania corn yields; they emulated a typical Midwest bumper crop year.

The drought of 2012 really hurt eastern Nebraska, northern Missouri and southern portions of Illinois and Indiana. F.I.R.S.T. did not obtain acceptable corn yield results from 31 of the 66 tests in these areas. We have never experienced this level of crop failure before. It was not unusual for corn yields to range from zero to 75 bu. per acre in these situations. Once corn yields dip below 40 bu.

### Corn Technologies Tested

Traits Tested	(% of entries containing traits)			
	2012	2011	2010	2009
<b>Conventional</b>	1.1	0.9	1.0	1.2
<b>Glyphosate</b>	98.8	98.8	98.0	94.2
<b>LibertyLink</b>	40.9	42.6	32.4	19.1
<b>Corn Borer</b>	96.9	96.5	94.2	96.2
<b>Rootworm</b>	84.4	86.2	88.8	90.4
<b>Triple Stack*</b>	84.3	86.0	88.2	89.0

\*Triple Stack = CB + RW + herbicide tolerant trait

### Refuge Blends Tested

Blend	2012	2011	2010	2009
<b>Blend</b>	10.1	0.9	—	—
<b>Non-Blend</b>	89.9	99.1	—	—

### Key Technologies Tested

<b>VT3P</b>	45.1	30.8	11.3	0.0
<b>STX</b>	13.5	14.2	9.5	0.0
<b>3000GT</b>	9.4	10.7	9.4	3.8
<b>VT3</b>	6.9	20.5	50.4	74.7
<b>HX,RR</b>	5.6	5.7	3.9	2.1
<b>HXT,RR2</b>	4.1	7.0	7.9	8.6
<b>VT2P</b>	2.5	2.6	0.1	0.0
<b>OI,RR</b>	2.4	0.0	0.0	0.0
<b>GT/CB/LL</b>	2.1	1.9	0.9	1.4
<b>3111</b>	1.7	2.7	0.0	0.0

— items not available for testing

per acre, it is impossible to accurately measure grain moisture and data quality diminishes drastically.

Drought impact hurt corn yield and data quality across central portions of Iowa, Illinois, Indiana and Ohio. The worst-case corn yield and data quality was just as severe but happened less frequently. Results from 11 tests in these areas were unacceptable due to drought.

Soybean yield levels were well below the normal previous-year levels but were generally better

### Soybean Technologies Tested

	(% of entries)			
	2012	2011	2010	2009
<b>Seed Treatment Use</b>				
<b>Treated</b>	88.3	96.5	93.7	87.8
<b>Untreated</b>	11.7	3.5	6.3	12.2
<b>Key Technologies Tested</b>				
<b>RR2Y</b>	88.5	89.8	72.8	46.1
<b>RR2/STS</b>	2.8	0.1	0.5	0.0
<b>RR</b>	8.5	9.8	21.4	47.9
<b>RR/STS</b>	0.1	0.3	0.7	2.3
<b>RR Lo Lin</b>	0.0	0.0	0.0	0.2
<b>LL</b>	—	—	3.4	3.5
<b>Conv</b>	0.1	—	1.2	0.0

— items not accepted for testing

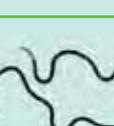
than expectations heading into harvest. Late-season rains associated with Hurricane Isaac fell across much of the Mississippi and Ohio River corridors to boost soybean yields. Soybean tests in Nebraska and South Dakota were hardest hit by the drought; in three regions, we lost 4 of 12 tests due to yields ranging from zero to 25 bu. per acre. With yields this low, results are unreliable. Grain moisture readings are unavailable due to low grain quantity. In those instances, higher-yielding products performed "well" due to being located in soil with greater moisture availability and not necessarily due to genetics.

Despite the tough conditions, there is a tremendous amount of good information to glean from the 2012 F.I.R.S.T. yield results. We hope you find the results beneficial as you make seed selections for 2013.

— Joe Bruce, F.I.R.S.T. General Manager

# KNOW YOUR CORN NEMATODES

INFORMATION COMPILED FROM RECENT UNIVERSITY EXTENSION ARTICLES.

COMMON NAME	DAMAGE RATING	SOIL TYPE	THRESHOLD* (per 100 cc soil)	ADDITIONAL INFORMATION
 Needle	High	Sandy	5-25	Most damaging. Prefers cool, wet conditions. Can kill corn plants. Causes stubby roots. Found near rivers and streams and in continuous corn.
 Root-Lesion	Moderate	All types	50-100 Pre-plant soil	Most significant impact in Midwest corn. Smaller root systems that are dark and discolored. Moderate stunting.
 Lance	Moderate	Sandy and others	40-150	Reduces root system. Darkened and discolored roots. Moderate stunting and chlorosis.
 Dagger	Moderate	All types; worse in coarse soils	50-100	Kills root tips. Sensitive to tillage. Severe stunting and chlorosis. Fewer fine roots remaining.
 Stubby-Root	High	Sandy	50-100	Severe stunting and chlorosis. Stubby lateral roots. Excessive upper roots.
 Sting	High	Sandy	20-50	Severe stunting and chlorosis. Small, coarse, devitalized root system. Found in southern Illinois and in the South.
 Spiral	Damage with high populations	Heavier soils	300+	Mild stunting. Smaller-than-normal root system. Root decay.
 Root-Knot	Damage with high populations	Sandy	100	Corn damaged by root-knot nematodes often is stunted and has the appearance of moisture and nutrient deficiencies.
 Stunt	Damage with high populations	Heavier soils	150-300	Moderate stunting and chlorosis. Smaller-than-normal root system.

\*Guidelines only—consult your state's Extension nematologist for more information specific to your geography.

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Photos courtesy of J. Eisenback, Virginia Tech University.

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CR1012PONVOTA033V00R0





**Corn Stats:**

Yield Range: 186.3-244.4 bu. per acre  
 Yield Average: 221.9 bu. per acre  
 Top \$ Per Acre: \$1,831.80

**Corn Field Notes: Red River Valley**

Mark Tollefson, F.I.R.S.T. Manager

**Casselton**—In this plot the lodged stalks laid flat on the ground; consequently, they didn't feed well into the corn head while harvesting. The corn stalks that lodged also had weak ear shanks and some corn was lost on the ground before and during harvest. The drought stress this year showed up in the stalks at harvest and caused some variable yield results. The early season had a lodging score of 4% with an average yield of 221.9 bu. per acre while the full-season test showed a lodging score of 12% with an average yield of 189.8 bu. per acre.

**Colfax**—By the looks of the tests at harvest, this site had no stress all year. Average yields here were 246.4 bu. per acre in the early-season test and 245.7 bu. per acre in the full-season test. The ground for this test plot has a high water table, which may have contributed to the excellent yield results in an otherwise dry year. Brandon Kub, F.I.R.S.T. farmer, reported record corn yields this year. It looks like this general geographical area had good yields as well, as

all the elevators have piles of grain stored on the ground.

**Elbow Lake**—The early-season test had some goose-necked corn, which made it difficult to harvest at times. The full-season test stood straighter and was easier to harvest. The lodging scores in this test are related to severely goose-necked corn that completely crossed over into neighboring rows. The worst lodging score presented was 11%, and lodging averaged 3% for the early-season test while the full-season test had an average of 1%. This area had near-average rainfall through July, but August was 1.5" below the 30-year average. We did have enough rain to provide good yields and plot data.

**Foxhome**—The corn here in Foxhome stood straight and ear shanks stayed strong through harvest, which helped produce nice yields (averaging 226.4 and 238.2 bu. per acre for the early- and full-season tests, respectively). Timely rain must have boosted yields. Total, nearly 5" of rain fell in July and August,

receiving 0.6" less than the 30-year monthly rainfall average for July and 1.2" less than the average for August. While the corn produced well, it was very dry at harvest and this area is going to need moisture for next year.

**Gwinner**—This site had a wind-storm just as the corn was getting ready to tassel, causing the corn to be goose-necked at harvest. The entire plot was damaged but severity was varied. During harvest we lost a few ears from the downed corn. Todd Larson, F.I.R.S.T. farmer, had record corn yields this year thanks to good stands at harvest.

**Hawley**—There were some inconsistent yields here in Hawley from the early-season test, as the more-elevated ground didn't hold moisture as well as the less-elevated ground did. The corn was in good condition at harvest, as the only major stress this year was lack of moisture. Mark Kasin, F.I.R.S.T. farmer, planted soybeans around the plot and I was glad to see the corn standing so well for harvest.

Site Information Red River Valley						2012 Rainfall (inches)*					
						Monthly				Vs. 30-year avg.	
Site	Soil Texture	Tillage	Prev. Crop	Units N	Planted	May	June	July	August	July	August
Casselton	silt loam	conventional	soybean	120	5/10	1.04	3.41	0.72	0.63	-2.74	-1.99
Colfax	sandy loam	conventional	sugarbeet	140	5/10	2.21	2.30	2.67	2.24	-0.81	-0.72
Elbow Lake	clay loam	conventional	soybean	155	5/14	2.40	3.62	3.34	1.37	-0.34	-1.66
Foxhome	silty clay loam	conventional	sugarbeet	164	5/12	2.01	2.21	2.79	1.97	-0.60	-1.20
Gwinner	loam	conventional	soybean	117	5/14	2.07	1.99	2.12	1.25	-1.18	-0.89
Hawley	sandy loam	conventional	soybean	120	5/11	2.72	2.24	2.17	1.42	-1.04	-1.25

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

# F.I.R.S.T. Red River Valley Corn Results



## EARLY-SEASON TEST 85-90 Day CRM

Top 30 of 53 tested

Company/ Brand	Product/ Brand	Technology	Seed Treatment	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Gross Income Rank	Casselton†	Colfax	Elbow Lake	Foxhome	Gwinner	Hawley
Rea	3B266-RIB	VT2P-R	AC,P5V	89	<b>238.2</b>	13.5	2	1,787	1	242.6	257.2	232.8	236.0	<b>228.6</b>	<b>232.2</b>
Rea	3B330-RIB	VT2P-R	AC,P2	90	<b>235.9</b>	13.7	1	1,769	2	243.1	<b>267.4</b>	236.0	<b>245.2</b>	210.9	212.5
Seeds 2000	2903GTCBLL	GT/CB/LL	MQ,C2	90	<b>234.5</b>	13.7	7	1,759	3	<b>270.6</b>	<b>269.4</b>	223.3	241.1	180.5	222.2
Mustang	3424	3000GT	AC,P2	90	<b>232.0</b>	14.0	3	1,740	4	228.0	264.7	<b>254.1</b>	222.3	204.4	218.2
Kruger	K4R-9489	STX-R	AC,P5V	89	<b>231.8</b>	14.6	3	1,739	5	236.3	263.0	232.3	227.0	208.0	223.9
NuTech	5B-290	GT/CB/LL	MQ,R,C2	90	231.6	13.8	2	1,737	6	229.8	<b>268.7</b>	243.3	231.9	201.3	214.3
Kruger	KR-4189	VT2P-R	AC,P2	89	230.9	13.1	4	1,732	7	225.5	263.7	243.0	230.6	206.4	216.0
Rea	3A377-RIB	STX-R	AC,P2	89	228.9	13.2	1	1,717	8	230.8	<b>268.1</b>	226.9	235.0	214.1	198.4
Wensman	W 7110VT3PRO	VT3P	AC,P5V	90	228.8	13.4	1	1,716	9	237.6	253.5	241.5	237.2	206.2	197.0
AgVenture/Scherr	GL2708ABW	3000GT	P2	88	228.5	13.4	3	1,714	10	239.1	250.0	218.8	240.5	220.9	201.5
Stine	9207 3000GT	3000GT	MQ,C2	90	227.2	13.9	4	1,704	11	228.4	265.3	229.3	226.9	187.5	225.9
Dyna-Gro	D26VP56	VT3P	AC,P5V	86	226.7	12.9	1	1,700	12	223.9	246.2	234.4	241.5	195.2	219.2
Channel	195-46STXRIB GC	STX-R	AC,P5V	95	226.3	15.3	2	1,696	15	230.6	252.5	<b>267.6</b>	215.7	207.8	183.8
Seeds 2000	2852GTCBLL	GT/CB/LL	MQ,C2	85	226.1	13.3	5	1,696	14	233.7	253.3	219.2	228.1	202.4	220.1
Kruger	K-7386	VT3P	AC,P5V	85	225.8	12.4	1	1,694	16	225.1	253.7	243.0	221.8	212.7	198.5
Proseed	990-3000GT	3000GT	MQ,C2	90	224.8	14.1	2	1,686	17	215.3	242.8	242.0	224.5	209.8	214.5
Mustang	2307VT3	VT3	AC,P2	86	224.7	12.7	1	1,685	18	237.9	249.6	225.0	240.1	187.8	207.3
Renk	RK275GTCBLL	GT/CB/LL	AC,P2	84	224.7	13.2	8	1,685	19	205.9	240.9	233.1	238.4	<b>225.7</b>	203.9
Rea	2V870	VT3P	AC,P5V	87	224.4	12.9	1	1,683	20	229.6	265.2	227.3	232.0	195.2	197.3
Proseed	1288-3111	3111	MQ,C2	88	223.9	14.3	6	1,679	21	230.9	240.3	239.2	225.6	199.7	207.8
Renk	RK302GTCBLLRW	3000GT	AC,P2	90	222.7	13.9	3	1,670	22	204.5	257.7	227.6	220.2	223.3	203.1
AgVenture/Scherr	GL2949AB	GT/CB/LL	P5	84	222.3	13.0	2	1,667	23	244.6	231.2	223.2	228.1	194.6	212.3
AgVenture/Scherr	GL3349ABW	3000GT	P5	86	222.3	14.3	2	1,667	24	235.5	251.1	220.7	222.7	203.1	200.5
Dairyland	DS7085	GT/CB/LL	MQ,C2	85	221.8	12.7	1	1,664	25	231.9	252.1	218.7	216.0	216.4	195.4
Wensman	W 8086RR	RR2	AC,P5V	85	221.6	12.6	1	1,662	26	235.8	238.9	240.9	241.6	186.4	186.0
Producers	4974VT3Pro	VT3P	AC,P5V	89	221.3	13.0	1	1,660	27	214.5	254.8	229.9	236.9	185.4	206.2
Dairyland	DS7985	GT/CB/LL	MQ,C2	85	220.9	13.2	8	1,657	28	242.3	256.4	205.0	240.5	191.3	189.6
Proseed	1189GT	GT	MQ,C2	89	220.6	14.0	9	1,655	29	221.2	242.1	219.0	223.1	203.9	214.2
Seeds 2000	8801VT2P	VT2P	AC,P2	88	220.3	12.5	2	1,652	30	222.7	235.5	228.9	227.5	207.4	199.9
Prairie Brand	920GT3	3000GT	MQ,C2	90	219.3	13.6	4	1,645	31	205.1	258.2	239.2	218.4	197.9	197.2
Channel	190-95VT3P CK	VT3P	AC,P5V	90	226.3	12.5	1	1,697	13	235.0	259.1	241.1	244.9	190.5	186.2
<b>Test Average =</b>					<b>219.2</b>	<b>13.2</b>	<b>2</b>	<b>1,644</b>		<b>221.9</b>	<b>246.4</b>	<b>224.6</b>	<b>226.4</b>	<b>197.2</b>	<b>198.6</b>
LSD (0.10) =					12.6	0.5	4			30.9	19.8	20.8	17.7	26.5	31.4

## FULL-SEASON TEST 91-94 Day CRM

Top 30 of 45 tested

Dyna-Gro	D34VP52	VT3P	AC,P5V	94	<b>244.4</b>	15.2	5	1,832	1	<b>217.9</b>	<b>270.9</b>	<b>260.8</b>	248.9	230.4	237.4
Wensman	W 8184VT3PRO	VT3P	AC,P5V	95	<b>243.9</b>	14.9	4	1,829	2	203.4	262.3	<b>270.3</b>	252.6	<b>236.2</b>	238.7
Rea	4B285-RIB	VT2P-R	AC,P2	93	<b>240.6</b>	14.6	5	1,805	3	211.3	249.8	<b>258.0</b>	253.2	<b>235.1</b>	236.3
Rea	3V440	VT3P	AC,P5V	91	<b>238.7</b>	13.9	2	1,790	4	210.9	248.3	<b>254.3</b>	251.8	221.4	<b>245.5</b>
Renk	RK492VT3P	VT3P	AC,P2	92	<b>237.1</b>	13.3	2	1,778	5	<b>212.6</b>	<b>267.4</b>	239.7	<b>261.0</b>	223.9	217.8
Gold Country	93-07 GC	VT3P	AC,P5V	93	235.9	13.8	1	1,769	6	180.0	258.7	<b>257.2</b>	254.1	219.3	<b>246.0</b>
Dyna-Gro	D31VP31	VT3P	AC,P2	91	234.8	13.1	3	1,761	7	195.7	242.4	<b>253.7</b>	248.9	230.1	238.1
Titan Pro	X2M91	VT3P	AC,P5V	91	232.9	13.2	2	1,747	8	199.5	249.1	<b>263.0</b>	223.9	<b>239.6</b>	222.5
Kruger	K-7194	VT3P	AC,P5V	94	232.7	13.6	3	1,745	9	202.0	258.0	<b>252.5</b>	238.0	221.6	223.8
Wensman	W 8195VT2RIB	VT2P-R	AC,P5V	95	232.3	14.8	1	1,742	10	185.6	259.7	236.8	238.3	223.8	<b>249.3</b>
Kruger	KR-4292	VT2P-R	AC,P5V	92	232.3	14.2	6	1,742	11	176.0	<b>266.1</b>	247.1	255.2	233.0	216.3
Rea	4V941	VT3P	AC,P5V	94	231.8	14.4	3	1,739	12	191.2	253.2	249.0	227.9	<b>236.5</b>	233.1
Kruger	K4R-9593	STX-R	AC,P5V	93	229.9	14.8	4	1,724	13	190.4	254.7	244.9	246.3	217.6	225.4
Dyna-Gro	D35VP40	VT3P	AC,P2	95	229.5	13.4	4	1,721	15	194.1	261.1	228.7	238.5	225.1	229.3
Proseed	1295SS	STX	AC,P2	95	228.6	14.2	3	1,715	16	185.4	263.0	224.3	251.6	219.9	227.6
Producers	5144VT3Pro	VT3P	AC,P5V	91	228.4	13.4	3	1,713	17	201.6	247.1	224.0	251.4	219.9	226.3
Proseed	1191SS	STX	AC,P2	91	228.0	13.5	2	1,710	18	187.3	243.4	247.0	236.2	<b>235.9</b>	218.3
Wensman	W 7140VT3PRO	VT3P	AC,P5V	93	227.9	14.1	2	1,709	19	<b>216.8</b>	236.0	222.1	234.5	222.8	234.9
Rea	3V921	VT3P	AC,P5V	92	225.7	14.1	7	1,693	20	177.4	252.2	235.5	246.4	211.2	231.7
Titan Pro	92A90GLV	3111	MQ,C2	91	225.6	14.0	2	1,692	21	168.7	259.6	223.3	230.2	<b>233.4</b>	238.4
Mustang	3643	VT3P	AC,P2	93	225.0	14.1	3	1,688	22	200.2	240.3	245.0	248.8	196.9	218.6
Titan Pro	X2M93	VT3P	AC,P5V	93	224.5	14.0	2	1,684	23	194.1	238.9	238.9	248.4	204.9	221.8
Seeds 2000	9202VT2P	VT2P	AC,P2	92	224.5	13.4	7	1,684	24	<b>214.6</b>	240.0	209.5	252.1	200.2	230.5
Hyland	8300	STX	P2	91	222.7	13.2	2	1,670	25	<b>213.0</b>	228.4	230.5	236.5	211.6	216.2
G2 Genetics	5X-9402^	HXT,RR2	MQ,R,P1V	94	222.5	14.0	4	1,669	26	196.1	240.7	225.6	237.9	211.5	223.4
AgVenture/Scherr	VPmx RL480HBW^	HXT,RR2	MQ,P1V	95	221.5	14.1	3	1,661	27	159.1	238.6	244.3	228.3	218.3	240.2
Kruger	K-7091	VT3P	AC,P5V	91	221.5	13.8	8	1,661	28	183.9	250.6	230.2	245.8	201.5	216.7
Renk	RK530VT3P	VT3P	AC,P2	94	220.7	13.9	1	1,655	29	192.5	238.9	241.5	228.2	201.9	221.1
Stine	9311VT3Pro	VT3P	AC,P2	92	220.3	14.2	1	1,652	30	190.1	234.5	228.1	234.9	214.2	219.7
AgVenture/Scherr	GL4342ABW	3000GT	P5	92	220.0	14.5	3	1,650	31	186.5	247.9	224.0	226.4	211.0	223.9
Channel	190-95VT3P CK	VT3P	AC,P5V	90	229.7	12.8	2	1,723	14	190.8	244.5	244.6	230.3	230.4	237.5
<b>Test Average =</b>					<b>224.5</b>	<b>13.8</b>	<b>3</b>	<b>1,684</b>		<b>189.8</b>	<b>245.7</b>	<b>230.8</b>	<b>238.2</b>	<b>216.6</b>	<b>225.9</b>
LSD (0.10) =					11.7	0.6	ns			22.3	20.0	18.9	19.8	16.5	17.3
‡ = 2 replications, early-season test															

# PONCHO®/VOTIVO®

## CORN AND SOYBEAN Q&A

### WHAT IS PONCHO/VOTIVO SEED TREATMENT?

Poncho®/VOTIVO® is a seed-applied product that protects young plants from pests and nematodes before they can strike. It has a systemic agent that is absorbed into new roots immediately and a unique biological component that creates a living barrier of protection for corn, soybean and cotton plants.

### I'VE USED PONCHO ON MY CORN – HOW DOES IT PERFORM ON SOYBEANS?

Poncho/VOTIVO brings to soybeans the trusted and reliable insect control of Poncho. The formulation delivers the rate of Poncho required to control many important early-season insect pests, such as aphids, bean leaf beetles, grape colaspis, seed corn maggots, wireworms and others. Poncho is now available for soybeans in combination with VOTIVO.

### HOW DOES PONCHO/VOTIVO PROTECT PLANTS AGAINST NEMATODES?

Millions of spores of the bacteria in Poncho/VOTIVO are applied directly to every seed. Once the seed is planted and the environment is favorable for seed germination, the bacteria also germinate and begin to grow and multiply exponentially. The bacteria continue to grow with the plant's roots, protecting them from nematode damage during the critical stage of plant establishment.

These bacteria compete with nematodes for space and food resources by forming a protective barrier around the young root in the rhizosphere (root zone) of the soil. The bacteria use root exudates, a food source for nematodes that also attracts the pest to plant roots. Fewer nematodes therefore reach the root surface and some even die from lack of nutrients. Poncho/VOTIVO does not directly kill nematodes, but it renders many of them ineffective.

### ARE NEMATODES A PROBLEM IN CORN?

Nematodes can cause 30 percent crop losses in corn without exhibiting any above-ground symptoms. There are several species of plant-pathogenic nematodes that can be found in corn, including needle, root-lesion, lance, dagger, stubby root, sting, spiral, root-knot and stunt. Depending on type and severity of infestation, nematodes can cause stunting, chlorosis, root decay and other damage.

### I PLANT SOYBEAN CYST NEMATODE-RESISTANT SOYBEAN VARIETIES. DOESN'T THAT OFFER ADEQUATE NEMATODE PROTECTION?

Resistance has been bred into many soybean varieties, but no SCN-resistant variety offers total protection against this pest, which causes an estimated \$1.5 billion in crop losses annually. Some lines of SCN-resistant varieties have shown a slow decline in effectiveness due to SCN population shifts among its 16 distinct races. Depending on geographic location, soybean growers may also have infestations of root-knot and/or reniform nematodes.

### DOES PONCHO/VOTIVO PROVIDE ANY DISEASE PROTECTION?

Poncho/VOTIVO decreases the nematode and insect damage to roots that can lead to disease. Nematodes feed by piercing root tissue with their sharp mouth parts called stylets. The ensuing punctures serve as points of entry for several significant plant pathogens that cause seedling diseases. Soil insect feeding also damages young root tissue causing openings that other soilborne pests use as a means to establish infections.

### WHAT YIELD BENEFITS DOES PONCHO/VOTIVO PROVIDE?

In a four-year span of 600+ corn field trials, Poncho/VOTIVO delivered an average of 6 to 8 bu/a over the 250 rate of Poncho. Even higher yields were seen in areas that have economically significant nematode populations. In more than 200 head-to-head soybean trials conducted over the past two years, Poncho/VOTIVO produced a consistent average of 1 to 2.5 bu/a more than the current Bayer CropScience premium seed treatment, Trilex® 2000 + Gaucho®, which in turn averages 4 to 6 bu/a more when tested against untreated checks in stressful environments.

### BEYOND YIELD, WHAT ARE THE BENEFITS OF USING PONCHO/VOTIVO?

Poncho/VOTIVO protects young plants from pests during critical early development stages, preventing irreversible damage before it happens. It increases root development, resulting in more vigorous plants. A larger root system often results in enhanced water and nutrient uptake, which leads to stronger stands and healthier plant establishment.

### IS IT EFFECTIVE TO COMBINE A TRADITIONAL CHEMICAL WITH A BIOLOGICAL COMPONENT?

Combining a chemical and a biological component leads to the pairing of different modes of action for different types of pests into a simple-to-apply single formulation. It is a challenging task to pair a traditional seed treatment with a biological product, but Bayer CropScience has crafted a formulation that is stable in the container and on the seed from application time through planting.

Bayer CropScience LP, 2 TW Alexander Drive, Research Triangle Park, NC 27709. Always read and follow label instructions. Bayer (reg'd), the Bayer Cross (reg'd), Gaucho® On Demand™, Poncho®, Trilex®, VOTIVO®, and Yield Shield® are trademarks of Bayer. Gaucho, Poncho, Poncho/VOTIVO, Trilex 2000, VOTIVO, and Yield Shield are not registered in all states. For additional product information, call toll-free 1-866-99-BAYER (1-866-992-2937) or visit our Web site at [www.BayerCropScience.us](http://www.BayerCropScience.us).

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## IS PONCHO/VOTIVO SAFE FOR THE SEED, INCLUDING CARRYOVER CORN SEED?

The germination of seed treated with Poncho/VOTIVO has been evaluated in the field and in the laboratory using industry-standard germination tests. These studies have shown Poncho/VOTIVO has no negative impact on germination speed or counts. Storability tests have shown no concerns when carrying over seed treated the previous year with Poncho/VOTIVO.

## IS ANY SPECIAL EQUIPMENT NEEDED TO APPLY PONCHO/VOTIVO TO THE SEED?

No special equipment is needed to apply Poncho/VOTIVO to the seed. It can be applied using the same commercial seed-treatment equipment used to apply other leading seed treatments offered by Bayer CropScience (such as the On Demand™ system) or with standard soybean seed treatment equipment that has been certified by your Bayer CropScience representative. It is not for use in hopper box, planter box, slurry box or other on-farm applications.

## BECAUSE PONCHO/VOTIVO CONTAINS A LIVING MICROORGANISM, ARE THERE ANY SPECIAL REQUIREMENTS FOR STORING THE PRODUCT OR TREATED SEED?

For best results, Poncho/VOTIVO must be stored between 32°F and 86°F. Ideally, long-term product storage should have temperature-controlled conditions; areas typically used for long-term seed storage may also provide favorable conditions for product storage. Transportation through hot conditions will not affect the viability of Poncho/VOTIVO unless at higher temperatures for continuous periods of time. Once the product is on the seed, store treated seed at a standard temperature and humidity to assure seed viability.

## DO THE BACTERIA IN PONCHO/VOTIVO CARRY OVER IN THE SOIL FROM YEAR TO YEAR?

While the bacteria are able to live and grow in the soil, bacteria are not able to survive on dead plant tissue for very long. Therefore, an acre of treated seed will not result in a sustained population of bacteria from one season to the next.

**IMPORTANT:** This advertisement is not intended to provide adequate information for use of these products. Read the label before using these products. Observe all label directions and precautions while using these products.



## WILL PONCHO/VOTIVO BE EFFECTIVE IN ALL SOIL TYPES AND IN ENVIRONMENTS WITH VARIOUS TEMPERATURES AND MOISTURE CONTENTS?

Poncho/VOTIVO has been shown to provide benefits on multiple seed types, including soybean, corn and cotton. Yield benefits have been seen across a wide range of environments that includes all different types of soil. Moisture is needed to induce the spore of Poncho/VOTIVO to germinate. If there is enough moisture for a corn or soybean seed to germinate and grow, then there is adequate moisture for the bacteria to begin to multiply. The bacteria of Poncho/VOTIVO can grow across a wide temperature range. As long as the seed is able to germinate and grow in the environment, Poncho/VOTIVO will be effective.

## HOW LONG DOES THE PROTECTION LAST?

Poncho/VOTIVO provides protection through the critical time of plant development that includes seed germination, seedling emergence and the establishment of the plant's production potential. Research shows the VOTIVO bacteria on the roots and in the rhizosphere 60+ days following seed germination. Unlike traditional nematicides, which begin to break down immediately, Poncho/VOTIVO keeps deterring nematodes from attacking the plant's root system through the first two generations of nematodes.

## IS PONCHO/VOTIVO COMPATIBLE WITH SEED-APPLIED INOCULANTS?

Yes. Poncho/VOTIVO has been tested by Bayer CropScience and was found to have compatibility similar to other commercial soybean seed treatments. Testing is continuing by several manufacturers.



**Corn Stats:**

Yield Range: 158.9-207.0 bu. per acre  
 Yield Average: 185.7 bu. per acre  
 Top \$ Per Acre: \$1,552.50

**Corn Field Notes: South Dakota Northeast**

Mark Tollefson, F.I.R.S.T. Manager

**Bath**—This plot looked like it had no stress all year with ears nicely filled all the way out to the tips. Scott Sperry, F.I.R.S.T. farmer, grew tall corn here with very little lodging. We harvested on an extremely windy day and the stalks and ears continued to hold up, indicating the healthy condition of the field. Sperry was very pleased with the test yields, which averaged around 230 bu. per acre in spite of the lack of rain all year.

**Cavour**—This site had some summer hail, which stripped the leaves and caused some green snap and stalk lodging (2–3%). In the early-season test, some ears had fallen to the ground due to weak ear shanks not retaining ears to the stalks. May and June rainfall was near average but July was dry and hot. Because of the stress, we lost some yield potential, bringing our average yields here down to around 120 bu. per acre.

**Clear Lake**—The corn was standing tall and straight at harvest here. The ears were filled out to

the tip and the shanks seemed to hold ears well for harvesting. I did observe some higher grain moisture that seemed to be associated with a depression in the field that may have held water longer than the rest of the field; the stalks in that area looked greener than in other areas. With an average of 211.4 bu. per acre in the early-season test and increasing to 242.3 bu. per acre in the full-season test, this was a nicely yielding test site, considering the lack of rainfall.

**Howard**—We did have some seedling emergence issues here this spring when over 6.5" of rain fell in May. One particular rain event shortly after planting compacted soils and washed away some corn seed. Harvesting presented a challenge as well due to a fall windstorm, which blew down corn in the plot. We did find that most of the stalks retained their ears through the harvest process and produced some nice-yielding corn. About half of the lodged corn had its roots ripped from the ground.

**Watertown**—This was a nice stand of corn at harvest; the corn stood straight and tall and we had no lodging issues. The plot is located in an area with good drainage, and yields picked up in the lowest portions of the plot, which has been a trend this year. In the full-season test I did see some really tall corn that failed to produce any ears. While this plot produced some good yields you could definitely see the affects of drought stress. The full-season test was rejected due to wide yield variation across replications of the same product.

**Webster**—In Webster the corn was very short at harvest with an average ear height of only 18" to 24" above the ground. The short corn stood well and produced better-than-expected yields. Yield averages were 170.1 bu. per acre in the early-season test and 183.9 bu. per acre in the full-season test. We had near-average rainfall in May, June and July; August rainfall was 2" below the 30-year average.

Site Information South Dakota Northeast						2012 Rainfall (inches)*					
						Monthly				Vs. 30-year avg.	
Site	Soil Texture	Tillage	Prev. Crop	Units N	Planted	May	June	July	August	July	August
Bath	silt loam	strip-till	soybean	148	5/9	0.98	2.66	1.92	1.80	-1.75	-0.80
Cavour	sandy loam	no-till	soybean	150	5/3	4.21	3.34	1.00	2.71	-1.92	0.28
Clear Lake	silty clay loam	conventional	soybean	204	5/2	6.82	3.98	1.12	2.99	-2.34	0.04
Howard	loam	no-till	soybean	150	5/3	6.77	2.04	0.46	1.45	-2.78	-1.64
Watertown	silty clay loam	conventional	soybean	164	4/25	3.59	4.74	1.14	1.76	-2.42	-1.12
Webster	silty clay	conventional	soybean	110	5/9	2.89	2.05	4.24	1.09	0.52	-1.96

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

# F.I.R.S.T. South Dakota Northeast Corn Results



## EARLY-SEASON TEST 91-96 Day CRM

Top 30 of 52 tested

Company/ Brand	Product/ Brand	Technology	Seed Treatment	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Gross Income Rank	Bath	Cavour	Clear Lake	Howard	Watertown <sup>#</sup>	Webster
Dyna-Gro Stine	D34VP52 9422VT3Pro	VT3P VT3P	AC,P5V AC,P2	94 96	<b>195.2</b> <b>194.1</b>	14.8 13.4	2 6	1,464 1,456	1 2	<b>259.7</b> 240.2	137.1 132.5	202.3 226.9	<b>209.5</b> <b>195.7</b>	165.6 190.3	<b>196.9</b> 179.0
Seeds 2000	9504VT3P	VT3P	AC,P2	95	<b>193.8</b>	13.9	5	1,454	3	<b>254.8</b>	<b>144.8</b>	213.1	181.6	192.2	176.0
Titan Pro	1M96-3P	VT3P	AC,P2	96	191.0	13.8	4	1,433	4	248.1	129.6	234.8	186.4	168.9	178.1
Renk	RK568VT3P	VT3P	AC,P2	95	190.9	14.6	2	1,432	5	246.4	137.2	216.5	<b>207.4</b>	160.0	177.7
Great Lakes	4567VT3PRO	VT3P	AC,P5V	95	190.6	13.7	2	1,430	6	233.8	134.4	<b>237.8</b>	<b>196.4</b>	155.1	185.8
Dyna-Gro	D35VP40	VT3P	AC,P2	95	189.1	13.0	4	1,418	7	235.0	126.8	217.8	185.7	<b>194.1</b>	175.2
Gold Country	95-33GENVT3P	VT3P	AC,P5V	95	189.0	13.8	2	1,418	8	249.6	125.5	205.2	191.3	175.5	187.1
Kruger	K-7195	VT3P	AC,P5V	95	188.3	13.7	4	1,412	9	244.4	130.0	234.1	174.8	177.1	169.2
Viking	C44-95R	VT3P	AC,P2	95	187.8	14.6	4	1,409	10	<b>254.5</b>	122.9	223.7	176.5	178.6	170.8
Gold Country	96-36GENVT3P	VT3P	AC,P2	95	187.0	14.6	3	1,403	11	231.6	<b>155.2</b>	195.6	188.4	184.5	166.8
Gold Country	94-65GENVT3P	VT3P	AC,P5V	94	186.8	13.2	7	1,401	12	<b>254.6</b>	116.9	221.7	181.6	182.5	163.3
Rea	4V941	VT3P	AC,P5V	94	186.3	14.8	3	1,397	13	226.8	137.1	230.1	176.6	167.9	179.1
Rea	4A654-RIB	STX-R	AC,P2	96	185.2	13.9	6	1,389	14	237.1	128.8	226.5	177.9	166.3	174.6
Titan Pro	X2M91	VT3P	AC,P5V	91	184.9	12.8	3	1,387	15	246.8	119.0	217.3	<b>203.4</b>	162.1	160.7
Wensman	W 7140VT3PRO	VT3P	AC,P5V	93	184.7	13.3	12	1,385	16	238.8	128.3	193.3	176.5	186.3	184.8
Titan Pro	X2M95	VT3P	AC,P5V	95	184.4	14.6	4	1,383	17	251.0	139.2	215.4	192.9	153.6	154.4
Producers	5144VT3Pro	VT3P	AC,P5V	91	183.1	13.0	4	1,373	18	237.1	114.5	<b>236.9</b>	179.8	154.6	175.8
Producers	5514VT3Pro	VT3P	AC,P5V	95	182.9	13.5	5	1,372	19	235.5	126.3	221.2	<b>204.6</b>	147.8	161.9
Wensman	W 8184VT3PRO	VT3P	AC,P5V	95	182.3	14.6	2	1,367	20	244.6	130.9	218.2	185.7	138.3	176.3
G2 Genetics	5X-9402^	HXT,RR2	MQ,R,P1V	94	182.3	12.8	6	1,367	21	225.0	120.1	<b>237.1</b>	<b>198.0</b>	140.3	173.1
Pioneer	P9630HR GC	HX,RR2	MQ,C2	96	181.9	14.0	8	1,364	22	233.6	135.9	218.4	173.4	140.5	189.3
Wensman	W 8120VT2RIB	VT2P-R	AC,P5V	92	181.5	12.5	5	1,361	23	232.8	111.6	218.6	169.7	165.5	190.7
Wensman	W 7268VT3	VT3	AC,P5V	96	181.0	14.4	2	1,358	24	248.6	131.2	211.2	151.8	159.0	184.2
Kruger	K4R-9495	STX-R	AC,P5V	95	181.0	13.9	5	1,358	25	236.2	113.6	188.9	173.9	187.6	185.8
Mustang	3893	VT3P	AC,P2	93	180.0	12.7	11	1,350	27	234.3	121.8	193.2	166.1	<b>200.8</b>	163.6
Seeds 2000	9503VT2P	VT2P	AC,P2	95	179.6	14.4	4	1,347	28	220.3	133.0	193.2	176.7	169.5	185.1
Titan Pro	X2M93	VT3P	AC,P5V	93	179.4	13.8	3	1,346	29	247.8	129.0	199.9	161.7	181.8	156.1
Mustang	3643	VT3P	AC,P2	93	178.9	12.7	7	1,342	30	239.8	120.2	211.4	174.9	154.7	172.1
Renk	RK492VT3P	VT3P	AC,P2	92	177.2	12.4	7	1,329	31	241.9	108.7	212.1	174.4	165.1	160.9
Dekalb	DKC48-37 CK	VT3	AC,P2	98	180.8	14.0	3	1,356	26	236.2	139.8	213.1	184.0	147.9	163.7
<b>Test Average =</b>					<b>179.4</b>	<b>13.5</b>	<b>5</b>	<b>1,346</b>		<b>234.5</b>	<b>121.5</b>	<b>211.4</b>	<b>175.4</b>	<b>163.4</b>	<b>170.1</b>
LSD (0.10) =					12.2	0.8	ns			19.5	20.5	24.8	18.7	30.3	21.6

## FULL-SEASON TEST 97-100 Day CRM

Top 30 of 45 tested

Great Lakes	4879VT3PRO	VT3P	AC,P5V	98	207.0	14.6	8	1,553	1	240.9	132.0	<b>267.4</b>	192.5	132.6	202.4
Wensman	W 9288VT3PRO	VT3P	AC,P5V	98	206.8	14.4	7	1,551	2	<b>251.3</b>	<b>135.7</b>	<b>265.4</b>	197.1	141.3	184.4
Pioneer	P9807HR GC	HX,RR2	MQ,C2	98	205.9	14.6	12	1,544	3	235.3	133.5	<b>258.4</b>	<b>205.4</b>	141.2	196.8
Producers	5904VT3Pro	VT3P	AC,P5V	99	203.4	14.5	4	1,526	4	235.8	120.6	257.3	197.0	172.5	206.2
Wensman	W 7290VT3PRO	VT3P	AC,P5V	99	203.0	14.3	10	1,523	5	<b>249.2</b>	129.0	256.8	187.7	184.6	192.2
Dekalb	DKC48-12RIB GC	STX-R	AC,P2	98	201.3	14.1	6	1,510	6	233.9	<b>137.5</b>	248.9	181.3	133.3	204.8
Great Lakes	5015VT3PRO	VT3P	AC,P5V	100	201.2	14.9	6	1,509	7	230.3	127.9	253.0	203.3	154.9	191.6
Pioneer	P9917HR GC	HX,RR2	MQ,C2	99	200.8	14.8	14	1,506	8	238.2	133.2	254.5	195.8	116.5	182.3
Producers	5784VT3	VT3	AC,P5V	97	199.8	14.5	9	1,499	9	235.9	118.0	<b>261.4</b>	178.2	165.3	205.6
Gold Country	97-40GENVT3P	VT3P	AC,P5V	97	199.2	14.7	3	1,494	10	<b>252.6</b>	<b>134.2</b>	253.5	191.7	151.1	163.8
Renk	RK585VT3P	VT3P	AC,P2	97	198.6	13.2	8	1,490	11	245.1	120.1	<b>259.6</b>	176.7	151.1	191.7
Gold Country	99-33GENVT3P	VT3P	AC,P5V	99	197.1	12.9	8	1,478	12	241.4	124.8	245.0	196.8	153.3	177.5
Dyna-Gro	D37VP71	VT3P	AC,P2	97	196.2	13.6	8	1,472	13	235.4	116.9	<b>262.2</b>	185.8	167.3	180.9
Kruger	K-7597	VT3P	AC,P5V	97	196.1	12.7	10	1,471	14	235.1	122.8	239.7	183.3	154.0	199.6
G2 Genetics	5Z-198^	OL,RR2	MQ,R,P1V	98	195.3	13.2	14	1,465	16	246.4	110.9	250.2	178.0	125.6	191.0
Wensman	W 7320VT3PRO	VT3P	AC,P5V	101	194.9	16.8	4	1,453	19	210.1	<b>135.8</b>	241.0	198.0	131.5	189.6
Renk	RK598VT3P	VT3P	AC,P2	100	194.6	13.6	4	1,460	17	218.2	109.7	257.3	<b>207.7</b>	120.0	180.3
Kruger	K-7696	VT3P	AC,P5V	97	194.2	12.9	9	1,457	18	221.2	120.3	<b>259.3</b>	187.3	122.1	182.9
Dyna-Gro	D39VP14	VT3P	AC,P5V	99	193.7	15.2	4	1,452	20	236.2	122.5	248.5	177.9	161.8	183.4
Seeds 2000	9902VP3111	3111	MQ,C2	99	192.7	13.5	9	1,445	21	233.6	106.9	243.0	195.3	112.6	184.9
Gold Country	99-04GENVT3P	VT3P	AC,P5V	99	192.6	15.3	5	1,443	22	219.5	117.5	244.1	<b>207.3</b>	152.2	174.8
Titan Pro	X2M00	VT3P	AC,P2	100	192.0	13.7	5	1,440	23	232.6	106.4	243.6	193.4	161.9	184.1
Kruger	K-7400	VT3P	AC,P5V	100	192.0	14.2	7	1,440	24	235.2	117.4	234.6	184.7	170.6	187.9
Mustang	5808	STX	AC,P2	98	191.9	14.3	5	1,439	25	236.0	117.7	232.6	189.3	114.2	184.1
AgVenture/Scherr	VPmx RL5925HBW^	HXT,RR2	MQ,P1V	101	191.9	15.0	17	1,439	26	245.5	118.4	237.1	165.7	135.5	192.7
Rea	4B820-RIB	VT2P-R	AC,P2	97	191.3	14.0	8	1,435	27	224.1	122.1	232.7	189.2	155.3	188.3
Rea	5V980	VT3P	AC,P5V	98	189.9	12.8	8	1,424	28	226.8	122.4	233.8	179.6	132.5	186.9
G2 Genetics	5H-399^	HX,RR2	MQ,R,P1V	99	189.8	13.7	8	1,424	29	225.5	115.6	236.1	171.4	151.5	200.6
Titan Pro	1M99	RR2	AC,P2	99	189.7	14.8	7	1,423	30	214.9	124.1	247.5	182.6	121.9	179.4
Wensman	W 7273VT3	VT3	AC,P5V	98	189.6	13.6	5	1,422	31	210.2	<b>134.6</b>	244.8	193.0	109.2	165.4
Dekalb	DKC48-37 CK	VT3	AC,P2	98	195.9	14.3	4	1,469	15	231.9	112.8	248.0	188.5	147.3	198.5
<b>Test Average =</b>					<b>192.0</b>	<b>14.2</b>	<b>8</b>	<b>1,439</b>		<b>229.5</b>	<b>119.6</b>	<b>242.3</b>	<b>184.6</b>	<b>139.1</b>	<b>183.9</b>
LSD (0.10) =					ns	1.7	ns			18.8	14.6	15.1	19.7	46.0	23.7

# = rejected results, full-season test



Mark Tollefson, F.I.R.S.T. Manager



**Corn Stats:**

Yield Range: 116.4-154.4 bu. per acre  
 Yield Average: 136.6 bu. per acre  
 Top \$ Per Acre: \$1,158.00

**Corn Field Notes: South Dakota Southeast**

**Beresford**—This plot struggled to produce yields due to drought stress. Jason and Kendall Frick, F.I.R.S.T. farmers, reported more than 100 bu. per acre average in the field around the test plot. Plants in the plot stood surprisingly well and although we did have stalk lodging it didn't really affect harvesting. The plants were small and many of the tops above the ears were off but stalks below the ears remained standing. Some plots had nice stands of barren plants while others had ears on every stalk.

**Chancellor**—This location was lost due to lack of rainfall. It was my best-looking plot in mid-June with full, dark green leaves and good height and vigor. July turned dry and hot, stunting ear development. Brock Hoogestraat, F.I.R.S.T. farmer, had yields range from 150 bu. per acre in low ground to 10 bu. per acre or less in higher parts of the field. He harvested 10 bushels total from our four acres of plot area. Most of the 92-day to 95-day RM corn plants surrounding the plot developed ears while most in the plot did not.

ears and had strong ear shanks. The full-season test had a lot more variation in crop condition including smaller ears, dropped ears, stalk lodging and no ears. A great deal of corn in the area was chopped in August for silage. Lewis Bainbridge, F.I.R.S.T. farmer, was pleasantly surprised to get 70 bu. per acre in the field around the plot.

**Flandreau**—We had a hard rain after planting that hurt emergence on this test site. The plot was in good shape at harvest and for the first time this year I had corn as tall as the combine. We had nice yields despite the challenging conditions.

**Colton**—A fall windstorm created a lot of stalk lodging. The stalks laid across the rows in one direction and I was able to harvest with minimal ear loss. While stalks were weakened, ear shanks held up for harvest. This area benefited from timely rains and yields were good. A mere 30 miles south corn yields were less than 100 bu. per acre.

**Salem**—A couple of 2" rains fell after planting that compacted the ground and hurt emergence. May rainfall was 6" above the 30-year average. A couple plots were damaged from standing water. One end of the plot was lost due to drought and heat in August. Corn stood well at harvest but ears fell off easily due to weak ear shanks. Had harvest been delayed, yield loss from falling ears would have hurt results.

**Ethan**—The soil was wet at planting, as wheat stubble from last year retained moisture. In the early-season test most plants produced



Photo courtesy of Mark Tollefson

Corn plants in Chancellor, S.D. suffered poor growth in the high-heat, low-moisture environment. Many plants did not develop ears. In one plot, Tollefson was only able to collect the three ears shown above out of an entire row.

Site Information South Dakota Southeast						2012 Rainfall (inches)*					
						Monthly				Vs. 30-year avg.	
Site	Soil Texture	Tillage	Prev. Crop	Units N	Planted	May	June	July	August	July	August
Beresford	silty clay loam	conventional	soybean	150	5/2	7.33	1.65	2.01	2.00	-1.27	-0.85
Chancellor	silty clay loam	conventional	soybean	125	4/26	5.20	1.56	0.61	1.13	-2.46	-1.77
Colton	clay loam	conventional	soybean	120	4/26	7.38	1.12	0.26	3.20	-3.27	-0.33
Ethan	loam	no-till	wheat	140	5/18	4.69	1.43	1.35	1.44	-1.24	-1.61
Flandreau	clay loam	conventional	soybean	140	5/1	11.07	1.62	0.30	1.87	-3.24	-1.63
Salem	loam	conventional	soybean	106	4/30	9.77	1.57	0.72	2.96	-2.77	-0.20

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

# F.I.R.S.T. South Dakota Southeast Corn Results



## EARLY-SEASON TEST 99-104 Day CRM

Top 30 of 52 tested

Company/ Brand	Product/ Brand	Technology	Seed Treatment	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Gross Income Rank	Beresford†	Chancellor	Colton	Ethan	Flandreau	Salem‡
LG Seeds	LG549VT3Pro	VT3P	AC,P5V	100	154.4	12.2	9	1,158	1	80.8		196.3	81.5	240.4	173.0
Great Lakes	5015VT3PRO	VT3P	AC,P5V	100	152.8	12.1	4	1,146	3	58.7		198.7	88.1	238.8	179.5
Wensman	W 7290VT3PRO	VT3P	AC,P5V	99	152.2	12.6	4	1,142	4	62.6		171.4	94.1	236.8	196.3
Gold Country	99-33GENVT3P	VT3P	AC,P5V	99	149.5	10.7	3	1,121	5	87.5		201.1	86.5	226.0	146.5
Pioneer	P9917AM1 GC	AM1,RR2	MQ,C2	99	148.8	12.2	6	1,116	6	72.5		185.5	83.4	229.7	172.7
Renze	2181-3000GT	3000GT	CE,C2	101	148.6	11.4	10	1,115	7	81.5		183.0	69.1	232.6	177.0
Producers	XP6104VT3Pro	VT3P	AC,P5V	101	146.8	12.3	5	1,101	8	44.7		187.9	73.7	248.7	179.0
LG Seeds	LG2501VT3Pro	VT3P	AC,P5V	101	146.6	12.8	4	1,100	9	49.0		198.8	90.7	238.7	156.0
Kruger	KR-4104	VT2P-R	AC,P5V	104	146.4	12.5	4	1,098	10	41.7		200.7	69.9	242.0	177.6
Mustang	6204	VT3P	AC,P2	104	146.1	12.2	3	1,096	11	35.6		222.1	64.8	271.5	136.4
Pfister	1760VT3	VT3	AVC,C2	99	145.2	12.2	8	1,089	12	61.2		187.1	89.2	230.8	157.8
Pfister	2225RR	RR2	AC,P2	101	145.1	12.0	3	1,088	13	65.4		198.1	69.0	220.4	172.6
Titan Pro	2M01-3P	VT3P	AC,P5V	101	144.5	13.3	9	1,084	14	56.0		188.3	84.7	242.1	151.6
Gold Country	100-95GENVT3P	VT3P	AC,P5V	100	144.3	11.4	3	1,082	15	77.9		185.4	79.9	225.5	155.9
Heine	741-3111	3111	AC,P2	104	144.2	11.7	6	1,082	16	52.6		211.8	71.8	249.1	135.9
Renk	RK635VT3P	VT3P	AC,P2	102	143.1	12.0	3	1,073	17	60.8		174.4	88.6	244.6	147.3
G2 Genetics	5H-502^	HX,RR2	MQ,R,C2	102	142.5	12.5	10	1,069	18	52.3	Lost to Drought	191.2	69.3	241.1	158.7
Wensman	W 9325VT3PRO	VT3P	AC,P5V	102	142.0	12.3	8	1,065	19	57.9		206.1	69.4	230.8	145.7
Renk	RK629VT3P	VT3P	AC,P2	101	141.6	12.5	4	1,062	20	53.9		182.8	86.6	223.2	161.7
Wensman	W 7320VT3PRO	VT3P	AC,P5V	101	141.6	13.6	8	1,062	21	52.0		190.7	93.1	211.8	160.4
Kruger	K-7400	VT3P	AC,P5V	100	140.9	11.4	3	1,057	22	60.7		173.8	77.7	237.1	155.2
Prairie Brand	1022RR	RR2	AC,P2	102	140.7	11.7	2	1,055	23	51.4		208.0	61.5	240.5	141.9
Titan Pro	81A04GL	3000GT	MQ,C2	104	140.7	13.2	21	1,055	24	59.7		178.2	58.2	246.7	160.7
LG Seeds	LG552VT3Pro	VT3P	AC,P5V	103	140.2	13.5	5	1,052	25	44.3		186.6	52.7	254.5	162.9
NuTech	5B-604	GT/CB/LL	MQ,R,C2	104	140.2	12.5	19	1,052	26	47.5		186.6	67.6	256.0	143.4
Mustang	6460	3000GT	AC,P2	103	139.8	15.2	12	1,048	27	71.9		170.2	51.2	238.8	167.0
NuTech	5N-001	3000GT	MQ,R,C2	101	139.6	11.7	5	1,047	28	62.0		175.6	80.6	224.1	155.5
Dairyland	DS6903	RR2	AVC,C2	103	138.1	13.7	11	1,036	29	49.0		188.5	77.3	235.6	140.2
Producers	6044VT3Pro	VT3P	AC,P5V	102	136.8	11.4	3	1,026	30	45.7		163.4	77.3	239.3	158.2
Gold Country	99-04GENVT3P	VT3P	AC,P5V	99	136.8	13.4	3	1,026	31	56.7		189.7	85.9	195.6	156.0
Dekalb	DKC52-04 CK	VT3P	AC,P2	102	153.3	13.0	3	1,150	2	75.3		176.1	97.3	244.3	173.4
<b>Test Average =</b>					<b>138.9</b>	<b>12.6</b>	<b>7</b>	<b>1,042</b>		<b>52.9</b>		<b>183.2</b>	<b>71.8</b>	<b>232.7</b>	<b>154.1</b>
LSD (0.10) =					13.9	1.3	7			23.9		23.1	17.5	20.0	26.3

## FULL-SEASON TEST 105-108 Day CRM

Top 30 of 30 tested

Producers	6884VT3Pro	VT3P	AC,P5V	108	149.1	13.8	2	1,118	1	49.0		231.7	65.7	259.8	139.1
Wensman	W 7459VT3PRO	VT3P	AC,P5V	107	149.1	14.3	2	1,118	2	68.5		237.6	71.5	244.2	123.8
Kruger	KR-4207	VT2P-R	AC,P2	107	148.6	13.1	2	1,115	3	46.5		227.9	80.5	236.3	151.9
Wensman	W 7473VT3	VT3	AC,P5V	109	145.8	15.9	9	1,090	4	46.0		216.7	59.5	262.3	144.6
Great Lakes	5785VT3PRO	VT3P	AC,P5V	107	144.6	14.2	3	1,085	5	85.4		240.1	60.1	238.8	98.5
LG Seeds	LG553VT3Pro	VT3P	AC,P5V	107	139.8	14.5	4	1,049	6	48.7		247.6	66.3	245.3	91.2
Kruger	K-7306	VT3P	AC,P5V	106	138.9	15.3	9	1,041	7	67.0		207.3	84.4	230.2	105.5
Producers	6624VT3Pro	VT3P	AC,P5V	106	137.9	15.9	3	1,031	8	57.9		231.7	56.1	259.1	84.7
Titan Pro	2M07-SS	STX	AC,P5V	107	136.9	13.6	5	1,027	9	72.7		229.1	56.2	241.0	85.4
Curry	625-54^ GC	HX,RR2	CE,R,C2	105	136.0	13.6	8	1,020	10	32.6		187.6	62.8	237.2	160.0
Renk	RK752SSTX	STX	AC,P2	106	135.6	13.3	6	1,017	12	68.8		206.5	69.8	249.9	83.2
Heine	810VT3P	VT3P	AC,P2	108	134.9	15.6	4	1,010	14	55.9		229.3	47.1	261.7	80.7
G2 Genetics	5H-806^	HX,RR2	MQ,R,P1V	106	134.7	14.2	6	1,010	13	93.3	Lost to Drought	213.9	53.0	192.5	120.6
Renk	RK795VT3P	VT3P	AC,P2	108	134.7	17.9	7	1,001	17	39.8		213.0	74.3	233.4	113.2
Curry	626-69^ GC	HX,RR2	CE,R,C2	106	134.4	13.8	5	1,008	15	44.1		215.7	50.2	222.8	139.4
Kruger	K4R-9205	STX-R	AC,P5V	105	134.1	13.6	8	1,006	16	29.2		218.9	61.2	222.2	138.9
G2 Genetics	5Z-407^	OL,RR2	MQ,R,P1V	107	132.9	12.9	2	997	18	54.0		222.1	79.2	230.1	79.3
Heine	799VT3Pro	VT3P	AC,P2	108	132.8	16.7	8	990	20	44.4		225.5	46.8	253.8	93.3
Dairyland	DS6604	RR2	CE,C2	104	132.7	11.5	2	995	19	56.0		220.5	65.1	240.6	81.2
Renk	RK741SSTX RIB	STX-R	AC,P2	107	131.6	13.9	3	987	21	48.0		219.5	65.5	250.6	74.5
Kruger	K-7907	VT3P	AC,P5V	107	130.6	13.9	2	980	22	25.9		219.1	39.2	260.9	107.9
Mustang	6808	STX	AC,P2	106	128.3	13.7	2	962	23	40.9		225.3	64.7	237.4	73.4
G2 Genetics	5H-0504^	HX,RR2	MQ,R,P1V	105	127.8	12.6	10	959	24	54.1		218.5	59.4	218.7	88.5
Titan Pro	X2M08	VT3P	AC,P5V	108	127.7	13.9	15	958	25	31.1		214.1	28.9	258.6	105.8
Stine	9529VT3Pro	VT3P	AC,P2	107	125.2	14.4	3	939	26	35.3		220.6	50.7	240.4	78.9
G2 Genetics	5Z-008^	OL,RR2	MQ,R,P1V	108	123.9	14.4	12	929	27	53.0		203.2	62.9	231.3	68.9
Titan Pro	1M05-SS	STX	AC,P2	105	123.2	14.8	4	924	28	29.1		217.1	64.2	240.0	65.8
LG Seeds	LG2544VT3	VT3	AC,P5V	108	121.3	14.1	8	910	29	41.9		215.9	48.1	238.9	61.9
Heine	768-3000GT	3000GT	CE,C2	106	116.4	16.1	22	870	30	37.7		182.2	36.0	237.2	89.1
Row intentionally blank															
Dekalb	DKC52-04 CK	VT3P	AC,P2	102	135.9	12.1	3	1,019	11	65.8		211.3	77.5	243.3	81.5
<b>Test Average =</b>					<b>134.2</b>	<b>14.3</b>	<b>6</b>	<b>1,005</b>		<b>50.8</b>		<b>219.0</b>	<b>60.2</b>	<b>240.6</b>	<b>100.4</b>
LSD (0.10) =					ns	1.7	ns			27.8		19.7	18.4	20.5	25.5

‡ = 2 replications, Beresford full-season test, Salem early-season test



**Corn Stats:**

Yield Range: 173.3-221.1 bu. per acre  
 Yield Average: 204.7 bu. per acre  
 Top \$ Per Acre: \$1,653.80

**Corn Field Notes: Minnesota West Central**

Mark Querna, F.I.R.S.T. Manager

**Clinton**—I knew it was dry near Clinton when there was no water standing in low spots while scouting in early April. Doug Nelson, F.I.R.S.T. farmer, said the crop looked excellent until early July, when test-site rainfall dropped to 1" per month. There was not enough water in the soil profile to achieve top end yields. Still, the corn looked good at harvest and was standing well in spite of the dry stalks. Farmers here need moisture before freeze-up to rehydrate the parched soil profile for next year's crops.

**Glencoe**—This corn-on-corn site was planted in good conditions. The farm of Gary and Mark Krcil, F.I.R.S.T. farmers, received 19" of rain from planting through June 1, and stand counts taken June 10 were disappointing. However, investment in drainage tile allowed this field to withstand the early rain. The crop tolerated three separate light hailstorms as well as below-average rainfall in July and August. I did not think this site could yield this well (averaging 211.5 bu. per acre in

the early-season test and 223.8 bu. per acre in the full-season test) after seeing the inferior stand quality in June! Plants stood well at harvest and the ears were impressive.

**Granite Falls**—Soil conditions were dry prior to planting, but the corn got off to a great start with 7.3" of rain in May and 4.2" in June. Keith Beito, F.I.R.S.T. farmer, had tasseled corn by July 8, and the potential to reach 250 bu. per acre. However, July brought only 0.65" rain. Most of that came during pollination; neighbors that missed that rain had 30 to 40 fewer bu. per acre. August brought only 1.7" rainfall, and the crop matured quickly due to above-average temperatures all summer.

**Hector**—This test site looked better from start to finish than any other site I managed this year. Stand counts were uniform and plant health was excellent throughout the season. Donn Cunningham is the F.I.R.S.T. farmer here; his farm had a lot of rain in May and just enough light rain through July and August

for a great finish. Cunningham's yield monitor never dropped below 230 bu. per acre in the surrounding field.

**Litchfield**—Planting conditions were excellent here. Heavy May rains caused erosion in a small part of the full-season plot, but this site looked great at harvest. Just enough rain fell in July and August to keep the corn moving rapidly to high yields at maturity. Very little lodging was noted. Tom Walsh, F.I.R.S.T. farmer, has used turkey manure in his fertility program for several years, which I believe helped in this dry year.

**Nicollet**—Dry weather in winter and early spring brought good planting conditions. This site was off to a super start when hail and high winds hit on June 18. Leaves were shredded and some damage to stalks was evident at harvest, but these hybrids bounced back quite well. The wind and hail caused stalk lodging in some hybrids (1%–3% average). Corn and soybean fields just one mile north of this test plot were totally destroyed by hail, so this site was fortunate.

Site Information Minnesota West Central						2012 Rainfall (inches)*					
						Monthly				Vs. 30-year avg.	
Site	Soil Texture	Tillage	Prev. Crop	Units N	Planted	May	June	July	August	July	August
Clinton	silty clay loam	conventional	soybean	150	5/1	2.45	4.56	1.51	2.46	-2.08	-0.65
Glencoe	clay loam	conventional	corn	180	4/30	10.02	4.91	2.04	1.85	-2.33	-2.58
Granite Falls	clay loam	minimum	soybean	150	5/1	7.44	4.26	0.74	2.91	-2.28	-0.36
Hector	clay loam	conventional	sweet corn	180	4/30	7.90	4.38	3.81	2.44	0.09	-1.79
Litchfield	silty clay loam	minimum	soybean	160	4/30	7.72	4.65	1.61	2.21	-2.22	-1.65
Nicollet	clay loam	conventional	soybean	175	4/30	9.32	2.22	2.34	1.12	-1.95	-3.10

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

# F.I.R.S.T. Minnesota West Central Corn Results



## EARLY-SEASON TEST 93-98 Day CRM

Top 30 of 63 tested

Company/ Brand	Product/ Brand	Technology	Seed Treatment	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Gross Income Rank	Clinton	Glencoe	Granite Falls	Hector	Litchfield	Nicollet
Wensman	W 9288VT3PRO	VT3P	AC,P5V	98	221.1	15.8	1	1,654	1	213.0	213.8	233.7	224.7	251.6	189.6
LG Seeds	LG5470VT3Pro	VT3P	AC,P5V	98	220.2	15.7	1	1,648	2	209.4	229.6	215.3	236.8	250.3	179.7
Channel	197-67VT3P	VT3P	AC,P5V	97	217.3	16.1	0	1,624	4	193.5	228.2	220.2	228.1	237.3	196.7
Channel	197-32VT3P	VT3P	AC,P5V	97	216.8	15.3	0	1,624	3	208.6	224.5	212.1	231.6	244.1	180.0
Enestvedt	E651VT3Pro	VT3P	MQ,C2	95	216.2	15.0	0	1,622	5	199.4	227.4	212.1	220.2	234.5	203.3
Trelay	4VP473	VT3P	AC,P5V	94	215.1	14.8	1	1,613	6	187.2	224.8	213.6	221.5	245.3	198.1
Wensman	W 8184VT3PRO	VT3P	AC,P5V	95	214.9	15.1	0	1,611	7	201.9	199.3	219.3	223.4	236.2	209.4
Renk	RK585VT3P	VT3P	AC,P2	97	213.5	14.3	0	1,601	8	208.8	223.1	194.4	230.0	239.1	185.8
Dyna-Gro	D34VP52	VT3P	AC,P5V	94	212.7	14.8	0	1,595	9	203.0	215.3	198.4	219.2	235.3	204.7
Producers	5784VT3	VT3P	AC,P5V	97	212.3	15.1	0	1,592	10	188.7	222.0	211.9	223.0	247.0	181.1
Titan Pro	X2M95	VT3P	AC,P5V	95	211.6	14.8	0	1,587	11	185.5	225.2	204.6	220.1	227.2	207.1
Renk	RK568VT3P	VT3P	AC,P2	95	211.3	14.6	0	1,585	12	192.8	225.1	199.5	224.6	231.0	195.0
Kruger	K-7195	VT3P	AC,P5V	95	211.0	14.5	0	1,583	13	199.9	205.4	212.9	219.9	235.4	192.3
Gold Country	95-33GENVT3P	VT3P	AC,P5V	95	210.9	14.2	0	1,582	14	195.3	233.0	203.7	216.2	221.3	195.8
Channel	196-76VT3P	VT3P	AC,P5V	96	210.9	15.1	0	1,581	15	206.7	219.9	207.4	215.0	231.6	184.7
LG Seeds	LG5444VT3Pro	VT3P	AC,P5V	96	210.7	14.9	0	1,580	16	192.8	210.2	217.2	223.8	236.8	183.4
Stine	9422VT3Pro	VT3P	AC,P2	96	210.4	14.7	1	1,578	17	199.7	220.8	207.4	214.7	237.4	182.3
LG Seeds	LG2468VT3	VT3	AC,P5V	97	210.3	15.2	0	1,576	18	181.4	218.5	225.9	212.0	233.2	190.8
Mustang	5808	STX	AC,P2	98	208.4	16.7	0	1,554	22	170.2	235.5	197.3	222.8	220.2	204.2
Dekalb	DKC46-20 GC	VT3P	AC,P2	96	208.3	14.7	0	1,562	19	183.5	218.0	195.7	227.3	229.9	195.2
Trelay	4VP897	VT3P	AC,P5V	95	208.2	15.3	0	1,560	20	197.1	218.1	198.6	224.8	230.1	180.7
Trelay	4VP641	VT3P	AC,P5V	97	207.4	15.2	0	1,555	21	187.9	224.9	195.9	224.3	220.6	190.6
Dyna-Gro	D37VP71	VT3P	AC,P2	97	206.9	14.5	1	1,552	23	185.9	229.5	199.3	200.0	235.1	191.3
Producers	5514VT3Pro	VT3P	AC,P5V	95	206.0	14.4	0	1,545	24	191.2	216.7	186.7	219.0	241.9	180.7
Titan Pro	1M96-3P	VT3P	AC,P2	96	206.0	14.4	1	1,545	25	188.8	208.9	185.9	228.6	243.7	180.1
Kruger	K4R-9495	STX-R	AC,P5V	95	205.5	14.9	0	1,541	26	160.8	214.2	200.5	218.4	238.1	201.1
Gold Country	94-65GENVT3P	VT3P	AC,P5V	94	205.0	13.7	1	1,538	28	189.0	212.1	194.8	215.6	238.7	179.5
G2 Genetics	5Z-198^	OL,RR2	MQ,R,P1V	98	204.3	14.8	3	1,532	29	184.0	226.4	201.5	224.9	234.8	154.3
Enestvedt	E652VT3Pro	VT3P	AC,P2	95	203.9	14.0	1	1,529	30	212.2	216.2	198.2	228.0	234.7	134.1
Kruger	K-7597	VT3P	AC,P5V	97	203.8	14.2	1	1,529	31	184.6	218.2	202.5	217.4	221.4	178.9
Dekalb	DKC48-12RIB CK	STX-R	AC,P2	98	205.2	14.9	1	1,539	27	193.6	209.0	194.5	222.6	227.6	184.1
<b>Test Average =</b>					<b>203.1</b>	<b>14.8</b>	<b>1</b>	<b>1,522</b>		<b>187.2</b>	<b>211.5</b>	<b>198.3</b>	<b>216.9</b>	<b>228.1</b>	<b>176.4</b>
LSD (0.10) =					10.2	0.7	ns			17.4	14.7	17.4	13.9	18.1	20.3

## FULL-SEASON TEST 99-102 Day CRM

Top 30 of 48 tested

Channel	200-91VT3P	VT3P	AC,P5V	100	219.3	17.7	0	1,630	2	209.9	235.6	201.2	245.4	215.3	208.5
LG Seeds	LG5499VT3Pro	VT3P	AC,P5V	100	218.5	16.6	0	1,630	1	206.3	232.5	223.8	230.0	226.1	192.4
Pioneer	P0062XR GC	HXT,RR2	MQ,C2	100	217.8	16.2	0	1,627	3	190.6	243.4	196.7	237.9	230.3	207.9
Trelay	5VP688	VT3P	AC,P5V	101	217.6	16.3	0	1,625	4	187.0	237.1	202.9	225.0	230.7	222.7
G2 Genetics	5H-202^	HX,RR2	MQ,R,P1V	102	216.8	16.5	1	1,618	5	198.5	240.8	208.9	237.3	208.9	206.4
LG Seeds	LG2501VT3Pro	VT3P	AC,P5V	101	215.4	16.0	0	1,610	6	211.5	234.0	189.0	222.0	229.6	206.0
Channel	202-25VT3P	VT3P	AC,P5V	102	215.3	16.3	0	1,608	7	208.1	235.4	204.5	213.0	226.4	204.6
Wensman	W 7290VT3PRO	VT3P	AC,P5V	99	215.0	16.7	0	1,603	8	216.5	218.8	206.0	226.9	226.7	194.8
Kruger	K-6201VT3	VT3	AC,P5V	101	214.9	17.2	0	1,600	9	202.8	237.9	207.0	224.0	209.2	208.5
Dekalb	DKC52-04 GC	VT3P	AC,P2	102	214.0	16.9	0	1,595	10	198.7	238.8	193.8	229.9	230.5	192.1
G2 Genetics	5H-399^	HX,RR2	MQ,R,P1V	99	213.0	16.6	0	1,589	13	206.4	222.4	193.5	228.8	226.7	200.2
Croplan	4033VT3PRO GC	VT3P	CE,C2,Z	100	212.9	16.1	0	1,591	11	207.7	240.9	188.7	222.0	231.4	186.8
Wensman	W 7330VT3	VT3	AC,P5V	103	212.8	16.5	0	1,588	14	203.4	234.4	169.6	228.6	228.0	212.5
Dairyland	DS9501SSX	STX	AVC,C2	101	212.3	15.5	0	1,590	12	197.5	226.6	218.7	227.4	221.6	182.2
Wensman	W 9325VT3PRO	VT3P	AC,P5V	102	212.3	16.2	1	1,586	15	185.4	231.6	198.5	235.9	227.6	195.0
Producers	5904VT3Pro	VT3P	AC,P5V	99	212.2	17.0	0	1,581	16	226.9	217.8	202.6	223.7	214.7	187.4
Wensman	W 7320VT3PRO	VT3P	AC,P5V	101	211.9	16.9	0	1,579	17	194.0	214.1	202.6	239.4	225.2	195.9
Renk	RK635VT3P	VT3P	AC,P2	102	210.1	15.9	0	1,571	18	210.2	234.6	184.9	213.7	228.3	188.9
Producers	XP6104VT3Pro	VT3P	AC,P5V	101	210.0	16.3	0	1,568	19	195.6	240.1	178.3	230.4	231.2	184.4
G2 Genetics	5X-0004^	HXT,RR2	MQ,R,P1V	100	209.9	18.9	0	1,554	22	208.5	220.1	190.3	242.0	221.3	177.4
Prairie Brand	981VT3	VT3	AVC,C2	99	209.4	17.0	0	1,560	20	212.8	225.1	204.2	213.6	213.3	187.2
Kruger	K-7400	VT3P	AC,P5V	100	208.7	16.0	1	1,560	21	213.3	229.2	206.0	213.2	214.1	176.3
Anderson	537VT3P	VT3P	CE,C2	101	207.1	15.4	0	1,551	23	203.5	221.3	180.4	213.6	234.4	189.2
G2 Genetics	5H-502^	HX,RR2	MQ,R,C2	102	206.8	17.1	0	1,540	25	203.0	223.6	197.1	229.1	207.9	180.3
Prairie Brand	1022RR	RR2	AC,P2	102	206.4	15.9	1	1,543	24	180.9	220.5	208.6	238.2	215.7	174.5
Renk	RK629VT3P	VT3P	AC,P2	101	206.3	17.1	0	1,536	27	165.4	227.3	190.1	223.2	230.2	201.8
Gold Country	99-04GENVT3P	VT3P	AC,P5V	99	205.8	16.3	0	1,537	26	196.5	213.0	197.9	218.3	218.0	190.8
Prairie Brand	1010VT3	VT3	MQ,C2	101	205.5	18.6	0	1,523	30	190.2	230.2	183.0	215.7	220.6	193.5
Titan Pro	2M01-3P	VT3P	AC,P5V	101	204.5	16.3	0	1,527	28	188.6	223.5	195.0	220.1	210.7	189.0
Titan Pro	X2M00	VT3P	AC,P2	100	203.8	15.7	0	1,525	29	207.4	213.5	205.8	204.2	203.7	188.2
Dekalb	DKC48-12RIB CK	STX-R	AC,P2	98	198.3	16.0	0	1,482	39	196.6	206.6	182.5	222.7	200.3	180.8
<b>Test Average =</b>					<b>206.3</b>	<b>16.5</b>	<b>0</b>	<b>1,540</b>		<b>194.5</b>	<b>223.8</b>	<b>193.3</b>	<b>221.3</b>	<b>216.8</b>	<b>188.3</b>
LSD (0.10) =					9.3	0.8	ns			20.6	14.1	20.9	14.1	16.1	20.3



# PONCHO®/VOTIVO® SEED TREATMENT BY BAYER

Bayer's Poncho®/VOTIVO® seed treatment protects young plants from pests during critical early development stages, leading to healthier root development and stronger stands. Applied directly to the seed, its systemic agent is absorbed by new roots immediately, never giving pests the opportunity to strike. Its revolutionary biological component – a unique bacteria strain that lives and grows with young roots – prevents nematodes from reaching the plant and causing damage.

Poncho/VOTIVO protects the whole plant, above and below ground, supporting healthier plant performance, improving vigor and positively impacting yield. The combination of a living barrier of protection with powerful control of critical early-season insects results in consistent defense of your crop from seed germination to plant establishment.

## BENEFITS OF PONCHO/VOTIVO

### CORN

- Controls black cutworms, wireworms and other important early-season insects.

- Systemic mode of action protects the entire plant, supporting healthier plant establishment.
- Living bacteria protects roots against nematode damage from a wide range of species.
- Valuable seed is protected from the moment it is planted.
- Maximizes early-season plant stands, uniformity and vigor for higher yields.

### SOYBEANS

- Controls early-season aphids, overwintering bean leaf beetles and other important early-season insects.
- Systemic mode of action protects the entire plant, supporting healthier plant establishment.
- Living bacteria protects roots against nematode damage from soybean cyst nematode (SCN) and other significant types of nematodes.
- Complements existing SCN-resistant soybean varieties for even greater protection.
- Promotes higher yields through a healthier root system and a more vigorous and uniform crop.

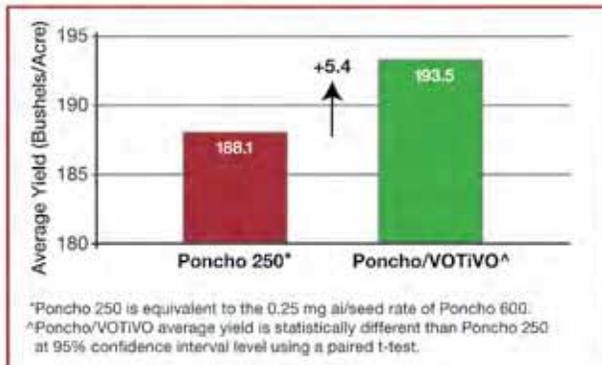


**PONCHO**

**VOTIVO**

## RESEARCH IN CORN

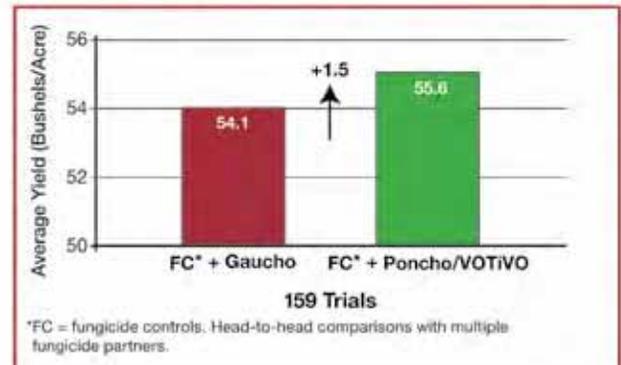
2007–2011 Poncho®/VOTIVO® Yield Enhancement over Poncho 250\*



Poncho® 250 (left) vs. Poncho®/VOTIVO® (right)  
Blue Earth, MN in June 2012 showing taller, fuller plants.

## RESEARCH IN SOYBEANS

2010 and 2011 Poncho®/VOTIVO® Yield Enhancement over Gaucho®



Gaucho® + Trilex® (left) vs. Poncho®/VOTIVO® (right)  
Sampson, NC, extremely high sting nematode population.

For more information, visit [PonchoVOTIVO.us](http://PonchoVOTIVO.us).

**IMPORTANT:** This advertisement is not intended to provide adequate information for use of these products. Read the label before using these products. Observe all label directions and precautions while using these products.



Bayer CropScience



**Corn Stats:**

Yield Range: 170.1-217.9 bu. per acre  
 Yield Average: 194.5 bu. per acre  
 Top \$ Per Acre: \$1,604.80

**Corn Field Notes: Minnesota Southwest**

Mark Querna, F.I.R.S.T. Manager

**Courtland**—This corn-on-corn site was in excellent condition at planting. John Luepke, F.I.R.S.T. farmer, indicated that heavy rain in May totaled 15" and caused a washout in part of the plot site. Stand counts were highly variable in June, which was true at all corn-on-corn sites in southern Minnesota. Almost no rain fell in July and August, causing rapid maturity and lower yields. The early-season results averaged 151 bu. per acre and the full-season test was rejected. Some stalk lodging was evident here, although it doesn't show in the reports.

**Easton**—A dry, snowless winter gave way to a wet May, recharging the soil moisture levels in most of Minnesota. The plot site of Tom and Jeff Warmka, F.I.R.S.T. farmers, needed that soil moisture. July and August were very dry. Although yields were lower than they could have been, the Warmkas were pleased with their corn. They averaged 203.3 bu. per acre in the early-season test and 215.8 bu. per acre in the full-season test. Plant

health was fair; stalks were weakened by nutrient cannibalism to fill the kernels.

**Jackson**—A dry winter and early spring gave way to good rain in April and excessive rain in May. This fully recharged the moisture levels in the soil. June was dry, but an inch of rain on July 4 boosted yield potential as pollination began. August rainfall was adequate. Steve Ryberg, F.I.R.S.T. farmer, stated that the corn fields yielded 180–190 bu. per acre while early soybean yields were around 50 bu. per acre. Lodging was not an issue here.

**Jeffers**—Early-season growth was aided by plenty of May moisture for F.I.R.S.T. farmer Rick Quade. As weather turned hot and dry, this crop quickly accelerated to maturity. Just enough rain fell to allow good kernel fill and quality. Yields averaged 194.8 bu. per acre in the early-season test and 195.8 bu. per acre in the full-season test.

**Redwood Falls**—Conditions were dry at planting, but the corn got a good start from heavy

rainfall in May. This site missed the extreme winds that occurred north of Redwood Falls. Weather turned dry in July and August. Stalk lodging occurred in some hybrids due to plant cannibalism as the crop neared maturity. This lodging made yields variable, especially in the full-season test. Steve Prokosch, F.I.R.S.T. farmer, mentioned that his corn yields were down 30% from normal due to drought.

**Tracy**—This corn-on-corn site received 5" of rain immediately after planting, causing severe variability in seedling emergence. Stand counts improved by mid-June, but dry weather as summer wore on prevented this site from recovering from the early stress. Plant health was deteriorating but lodging had not yet occurred at harvest time. Early-season test data was rejected here. Early-season test single-hybrid yields varied by up to 120 bu. per acre between replications due to stress-level differences from one replication location to another. The full-season test averaged 204.6 bu. per acre.

Site Information Minnesota Southwest						2012 Rainfall (inches)*					
						Monthly				Vs. 30-year avg.	
Site	Soil Texture	Tillage	Prev. Crop	Units N	Planted	May	June	July	August	July	August
Courtland	loam	conventional	corn	200	4/29	9.79	1.30	1.92	1.19	-2.06	-2.91
Easton	clay loam	conventional	soybean	140	5/3	5.51	3.74	1.33	2.02	-3.10	-2.58
Jackson	clay loam	conventional	soybean	152	4/27	7.08	1.80	4.10	2.66	0.32	-1.38
Jeffers	clay loam	conventional	soybean	155	5/10	8.22	1.65	0.80	2.27	-3.25	-1.25
Redwood Falls	clay loam	conventional	soybean	175	4/27	8.49	2.49	1.06	3.18	-2.58	-0.48
Tracy	silty clay loam	conventional	corn	190	5/4	10.20	2.15	0.57	3.27	-2.60	0.10

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

# F.I.R.S.T. Minnesota Southwest Corn Results



## EARLY-SEASON TEST 97-102 Day CRM

Top 30 of 72 tested

Company/ Brand	Product/ Brand	Technology	Seed Treatment	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Gross Income Rank	Courtland#	Easton†	Jackson	Jeffers	Redwood Falls	Tracy#
Wensman LG Seeds	W 9288VT3PRO LG2501VT3Pro	VT3P VT3P	AC,P5V AC,P5V	98 101	<b>201.7</b> <b>201.3</b>	16.7 17.7	0 0	1,504 1,496	1 3	159.9 <b>181.4</b>	<b>224.3</b> 211.0	218.3 231.8	<b>208.9</b> 195.2	197.3 186.9	195.1 162.3
Producers	XP6104VT3Pro	VT3P	AC,P5V	101	201.1	17.2	0	1,497	2	166.1	210.7	219.8	<b>215.9</b>	193.0	192.6
Producers	XP5894VT3Pro	VT3P	AC,P5V	98	200.4	17.0	0	1,493	4	157.1	217.5	231.6	208.4	187.5	162.4
Pioneer	P9917AM1 GC	AM1,RR2	MQ,C2	99	200.1	16.9	0	1,491	5	<b>185.9</b>	197.8	219.4	203.4	194.2	161.6
Wensman	W 9325VT3PRO	VT3P	AC,P5V	102	199.9	17.0	0	1,489	6	171.5	205.2	226.5	<b>209.8</b>	186.5	190.6
G2 Genetics	5H-202^	HX,RR2	MQ,R,P1V	102	198.8	16.6	10	1,483	7	148.5	<b>239.3</b>	<b>237.8</b>	200.0	168.5	197.7
Kruger	K-6201VT3	VT3	AC,P5V	101	198.6	18.0	3	1,475	12	148.2	<b>218.2</b>	233.7	<b>215.5</b>	177.5	178.6
Viking	C94-01R	VT3P	AC,P2	101	198.4	17.1	0	1,478	11	<b>186.0</b>	205.7	218.5	192.7	188.9	193.9
Channel	197-67VT3P	VT3P	AC,P5V	97	198.2	16.6	0	1,479	10	157.8	197.2	226.2	197.6	<b>212.2</b>	158.0
Prairie Brand	1022RR	RR2	AC,P2	102	198.0	16.0	0	1,480	9	163.1	202.7	222.3	199.0	<b>203.1</b>	179.1
Anderson	537VT3P	VT3P	CE,C2	101	197.0	16.0	0	1,473	13	<b>182.3</b>	217.6	211.3	197.9	175.9	165.0
Wensman	W 7290VT3PRO	VT3P	AC,P5V	99	194.8	16.2	0	1,455	14	134.7	<b>224.0</b>	233.1	200.9	181.5	197.1
Channel	200-91VT3P	VT3P	AC,P5V	100	194.7	17.7	1	1,447	18	146.8	<b>220.6</b>	224.7	193.9	187.4	182.7
Pfister	2225RR	RR2	AC,P2	101	194.5	15.8	0	1,455	15	161.2	209.5	224.2	198.5	179.2	170.0
Channel	197-32VT3P	VT3P	AC,P5V	97	194.5	16.1	0	1,453	16	155.8	<b>224.4</b>	217.8	193.6	180.9	145.3
Gold Country	99-04GENVT3P	VT3P	AC,P5V	99	194.3	17.5	0	1,445	19	165.5	207.0	224.7	187.2	180.2	175.8
LG Seeds	LG5499VT3Pro	VT3P	AC,P5V	100	194.2	15.9	2	1,452	17	138.1	210.9	231.6	<b>211.9</b>	178.7	<b>203.3</b>
Mustang	6801	VT3P	AC,P2	104	193.0	15.8	0	1,444	20	153.6	211.4	221.6	198.2	180.3	165.8
Renk	RK635VT3P	VT3P	AC,P2	102	192.3	15.9	0	1,438	21	173.8	194.9	215.4	197.4	180.2	170.3
Prairie Brand	1010VT3	VT3	MQ,C2	101	192.2	18.6	0	1,424	27	160.9	201.2	227.1	184.4	187.4	164.3
LG Seeds	LG2468VT3	VT3	AC,P5V	97	191.8	15.6	0	1,436	22	137.2	209.0	212.2	200.4	<b>200.4</b>	169.5
Wyffels	W2277	VT3P	AC,P5V	100	191.7	17.4	0	1,426	25	138.6	211.7	223.1	201.0	184.1	184.8
G2 Genetics	5Z-802^	OL,RR2	MQ,R,P1V	102	191.5	16.2	3	1,431	24	157.4	209.9	210.4	200.9	178.7	187.4
Pfister	1821SS	STX	AVC,C2	100	191.4	15.9	0	1,431	23	148.2	211.9	216.2	189.9	190.9	167.8
Titan Pro	1M02-SS	STX	AC,P2	102	191.1	16.6	0	1,426	26	108.0	213.9	<b>242.3</b>	196.9	194.2	145.5
Wensman	W 7320VT3PRO	VT3P	AC,P5V	101	190.5	17.4	1	1,417	28	168.6	183.6	218.7	201.2	180.6	159.8
Channel	202-25VT3P	VT3P	AC,P5V	102	189.8	16.4	0	1,417	29	152.8	197.8	227.9	191.6	178.8	176.6
Dekalb	DKC50-77 GC	VT3P	AC,P2	100	189.4	15.8	0	1,417	30	161.4	205.8	211.8	183.0	185.1	149.9
Gold Country	99-33GENVT3P	VT3P	AC,P5V	99	188.6	14.6	0	1,415	31	146.1	206.4	216.1	194.1	180.4	166.7
Dekalb	DKC52-59 CK	VT3	AC,P2	102	188.3	16.3	0	1,481	8	171.1	211.1	229.2	195.7	184.2	177.1
<b>Test Average =</b>					<b>188.2</b>	<b>16.5</b>	<b>1</b>	<b>1,404</b>		<b>151.0</b>	<b>203.3</b>	<b>216.7</b>	<b>194.8</b>	<b>175.2</b>	<b>166.8</b>
LSD (0.10) =					13.0	1.2	ns			29.5	14.4	17.7	13.8	24.5	35.8

## FULL-SEASON TEST 103-106 Day CRM

Top 30 of 42 tested

Producers	6624VT3Pro	VT3P	AC,P5V	106	<b>217.9</b>	20.4	0	1,605	1	145.9	<b>233.9</b>	237.7	206.2	173.7	<b>237.9</b>
G2 Genetics	5H-0504^	HX,RR2	MQ,R,P1V	105	<b>216.1</b>	19.6	1	1,596	2	148.3	<b>236.0</b>	234.9	202.9	183.4	223.5
Pioneer	P0533AM1 GC	AM1,RR2	MQ,C2	105	<b>214.9</b>	19.6	1	1,587	3	166.9	213.5	239.7	211.6	<b>199.9</b>	209.6
Mustang	6204	VT3P	AC,P2	104	213.8	19.0	4	1,582	4	147.4	224.9	231.6	211.5	172.2	228.7
Kruger	K-7306	VT3P	AC,P5V	106	211.2	19.3	0	1,561	5	146.8	212.9	220.3	204.2	187.4	<b>231.1</b>
Wyffels	W4797	VT3P	AC,P5V	106	209.0	18.8	0	1,548	8	163.4	224.1	229.2	198.7	186.7	206.2
Wensman	W 7330VT3	VT3	AC,P5V	103	208.9	17.0	1	1,556	6	171.9	206.1	225.3	206.4	187.8	218.7
Wyffels	W3007	VT3P	AC,P5V	103	208.8	17.9	1	1,551	7	147.5	230.8	211.7	207.8	179.1	214.8
LG Seeds	LG5522VT3Pro	VT3P	AC,P5V	103	208.1	18.9	1	1,541	9	144.8	224.5	225.9	210.7	161.5	217.8
Renk	RK752SSTX	STX	AC,P2	106	208.0	21.2	4	1,528	12	163.3	230.2	218.5	183.2	195.2	212.7
Channel	203-43VT3P	VT3P	AC,P5V	103	206.4	18.2	3	1,532	10	150.8	207.9	222.8	<b>212.6</b>	161.2	227.6
Kruger	KR-4104	VT2P-R	AC,P5V	104	206.4	18.6	1	1,529	11	185.8	214.7	<b>243.9</b>	198.4	168.6	206.4
Titan Pro	X2M04	VT3P	AC,P2	104	205.7	18.5	1	1,525	13	168.5	219.4	223.3	192.8	177.1	215.7
Renze	CX22104-3000GT	3000GT	CE,C2	104	205.5	19.8	1	1,517	15	174.6	210.1	234.3	199.1	182.2	201.7
Dekalb	DKC53-78RIB GC	STX-R	AC,P2	103	205.3	18.0	0	1,524	14	149.7	211.3	227.9	203.6	174.0	209.6
G2 Genetics	5X-903^	HXT,RR2	MQ,R,P1V	103	204.8	19.1	1	1,515	16	143.1	214.3	230.0	199.5	185.8	194.3
Renze	2222-3000GT	3000GT	CE,C2	104	204.7	19.6	0	1,512	17	170.8	211.7	224.4	207.8	169.5	210.2
Kruger	K4R-9205	STX-R	AC,P5V	105	203.8	20.6	1	1,500	20	164.1	218.6	216.2	202.3	162.8	218.9
Viking	Y54-04RL	3000GT	MQ,C2	104	203.7	20.1	2	1,502	18	164.2	215.5	220.4	203.9	167.2	211.4
Dairyland	DS6903	RR2	AVC,C2	103	203.4	19.7	3	1,502	19	171.1	221.8	226.2	199.1	171.9	197.9
Mustang	6460	3000GT	AC,P2	103	201.8	19.2	1	1,492	21	176.5	207.8	219.2	196.3	172.2	213.5
Dekalb	DKC52-04 GC	VT3P	AC,P2	102	201.4	18.9	0	1,491	23	166.2	208.8	216.0	202.0	173.3	207.0
Wyffels	W4267	VT3P	AC,P5V	105	200.4	18.2	0	1,487	24	163.7	206.4	224.5	190.8	183.7	196.8
Viking	C78-05R	VT3P	AC,P2	105	199.3	18.6	2	1,477	25	149.8	232.2	221.1	207.4	154.7	181.0
Channel	202-32STX	STX	AC,P5V	104	199.3	19.9	7	1,470	27	171.0	219.5	231.3	191.4	136.5	217.6
NuTech	5B-604	GT/CB/LL	MQ,R,C2	104	199.1	18.8	23	1,474	26	128.9	221.4	<b>243.8</b>	195.2	135.6	199.3
Channel	204-06VT3P	VT3P	AC,P5V	104	198.1	18.4	2	1,469	28	147.1	218.6	225.8	185.5	148.3	212.1
Dairyland	DS9303SSX	STX	AVC,C2	103	197.8	18.6	10	1,466	29	168.8	222.0	207.3	187.0	182.7	190.1
G2 Genetics	5H-806^	HX,RR2	MQ,R,P1V	106	197.3	18.9	8	1,461	30	159.1	214.3	235.6	173.9	138.0	224.7
Renk	RK708SSTX	STX	AC,P2	105	196.9	20.2	0	1,451	31	175.0	220.8	218.4	207.3	169.2	168.6
Dekalb	DKC52-59 CK	VT3	AC,P2	102	200.1	16.9	0	1,491	22	168.2	204.8	218.9	200.6	176.9	199.1
<b>Test Average =</b>					<b>200.8</b>	<b>19.2</b>	<b>3</b>	<b>1,485</b>		<b>161.0</b>	<b>215.8</b>	<b>221.9</b>	<b>195.8</b>	<b>165.6</b>	<b>204.6</b>
LSD (0.10) =					13.3	1.2	9			39.3	16.6	21.0	16.1	34.1	25.6

# = rejected results, Courtland full-season test, Tracy early-season test; ‡ = 2 replications, Easton early-season test, Tracy full-season test



**Corn Stats:**

Yield Range: 166.4-229.9 bu. per acre  
 Yield Average: 210.4 bu. per acre  
 Top \$ Per Acre: \$1,716.20

**Corn Field Notes: Minnesota Southeast**

Mark Querna, F.I.R.S.T. Manager

**Cannon Falls**—Early-season growth in Cannon Falls was excellent due to 6.9" of rain in May. This site received 12.2" of rain in June, 3.7" of rain in July and 4" of rain in August. The final stands were a bit inconsistent at this corn-on-corn site. Lodging scores here were very low even at a late harvest date. This test averaged 203.4 bu. per acre in the early-season test and jumped up to 213.1 bu. per acre in the full-season test.

**Dexter**—Corn at this site responded to the variable weather with very good yields. F.I.R.S.T. farmer Eric Lee stated that his farm received 1.5" of rain per month in June, July and August. That lack of rainfall, along with higher-than-normal summer temperatures, matured the corn ahead of schedule. Lee stated that he was surprised by the high yields in this test, as much of his farm produced lower yields. Pest pressure was low. Some stalk lodging did occur due to plant cannibalism during seed fill.

**Eyota**—Conditions were dry at planting; however, ample rain in

May saw this site off to a great start and it never looked back. Rainfall in July and August was less than normal but still provided enough moisture for top end yields. The early-season test averaged 228.2 bu. per acre and the full-season test averaged 237 bu. per acre. Paul Wendt, F.I.R.S.T. farmer, mentioned that while these yields were very good, fields just a few miles north received more rain after pollination, which boosted yields even higher.

**Kasson**—Planting conditions were excellent here, but heavy rain in May caused some soil erosion on this almost-level test plot. Rainfall continued to be strong in June, July and August; these months were wetter here than in other parts of Minnesota. The abundance of rain was enough to establish good seed fill. Some hybrids experienced severe lodging (mostly stalk, but some root lodging as well) while others stood very well. Lodging averaged 11% in the early-season test with an increase to 44% in the full-season test.

**Madison Lake**—Even though this test site was the last corn plot planted, early-season growth was strong due to beneficial rainfall in May. That early-season rain was followed by June, July and August each receiving 1.5" of rain. Unfortunately, the July and August rains were very scattered and lacked intensity. Lodging scores were mostly low, although a few plots showed signs of weak or lodged stalks resulting from the plants putting all their moisture and nutrients into the ears.

**New Richland**—Planting was delayed here due to rain, but this site looked beautiful all year. Rainfall in July and August consisted of light sprinkles, but every bit of moisture was used to keep this corn on its feet. The field of Leon Schoenrock, F.I.R.S.T. farmer, surrounding the plot was planted two weeks earlier and averaged 220 bu. per acre. Plant health was good at harvest, as average moisture was higher than most of the Minnesota F.I.R.S.T. plots.

Site Information Minnesota Southeast						2012 Rainfall (inches)*					
						Monthly				Vs. 30-year avg.	
Site	Soil Texture	Tillage	Prev. Crop	Units N	Planted	May	June	July	August	July	August
Cannon Falls	silty clay loam	conventional	corn	200	4/26	6.93	12.22	3.67	4.01	-0.14	-0.63
Dexter	silt loam	minimum	soybean	135	5/10	5.77	3.68	2.98	4.01	-1.81	-0.97
Eyota	silt loam	minimum	soybean	175	4/26	4.74	3.35	3.93	2.88	-0.55	-1.87
Kasson	silt loam	conventional	corn	162	4/24	4.78	4.82	4.12	1.79	-0.32	-3.02
Madison Lake	clay loam	conventional	soybean	130	5/13	7.55	1.56	1.59	1.36	-2.73	-2.82
New Richland	clay loam	conventional	soybean	135	5/12	6.13	5.41	0.95	1.52	-3.47	-3.23

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

# F.I.R.S.T. Minnesota Southeast Corn Results



## EARLY-SEASON TEST 95-100 Day CRM

Top 30 of 72 tested

Company/ Brand	Product/ Brand	Technology	Seed Treatment	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Gross Income Rank	Cannon Falls	Dexter	Eyota	Kasson	Madison Lake	New Richland
LG Seeds	LG5499VT3Pro	VT3P	AC,P5V	100	<b>228.8</b>	16.1	4	1,710	1	<b>231.8</b>	<b>243.5</b>	241.2	<b>237.9</b>	<b>203.5</b>	215.0
Producers	XP5894VT3Pro	VT3P	AC,P5V	98	<b>224.6</b>	15.3	1	1,683	2	<b>222.7</b>	<b>235.5</b>	241.4	213.4	<b>211.8</b>	<b>222.6</b>
Wensman	W 9288VT3PRO	VT3P	AC,P5V	98	<b>224.6</b>	15.5	0	1,682	3	220.0	<b>233.3</b>	<b>249.5</b>	233.9	189.5	<b>221.6</b>
G2 Genetics	5X-0004^	HXT,RR2	MQ,R,P1V	100	<b>222.5</b>	16.9	0	1,658	6	<b>223.0</b>	226.3	230.3	<b>242.4</b>	190.5	<b>222.7</b>
LG Seeds	LG5444VT3Pro	VT3P	AC,P5V	96	<b>222.3</b>	15.0	0	1,667	4	205.0	<b>236.4</b>	<b>242.9</b>	<b>245.1</b>	189.6	214.9
LG Seeds	LG5470VT3Pro	VT3P	AC,P5V	98	<b>221.8</b>	15.4	6	1,661	5	<b>229.1</b>	<b>237.6</b>	<b>242.2</b>	212.3	196.0	213.8
G2 Genetics	5H-399^	HX,RR2	MQ,R,P1V	99	<b>221.3</b>	15.5	1	1,657	7	213.0	<b>234.8</b>	<b>257.4</b>	213.7	187.3	<b>221.4</b>
AgriGold	A6252VT3Pro	VT3P	AC,P5V	100	<b>220.4</b>	15.5	1	1,650	8	203.9	<b>233.0</b>	235.5	229.7	<b>201.6</b>	218.5
Renk	RK568VT3P	VT3P	AC,P2	95	<b>219.8</b>	15.3	0	1,647	9	196.5	<b>234.8</b>	235.4	<b>236.1</b>	<b>200.6</b>	215.4
Channel	197-67VT3P	VT3P	AC,P5V	97	<b>219.4</b>	15.6	1	1,642	10	211.1	<b>231.2</b>	239.3	227.3	188.2	219.5
Channel	200-91VT3P	VT3P	AC,P5V	100	218.1	16.5	0	1,628	11	<b>222.7</b>	<b>238.2</b>	232.2	226.6	185.2	203.8
Stine	9422VT3Pro	VT3P	AC,P2	96	216.9	14.9	0	1,627	12	222.5	228.5	235.8	221.8	190.1	202.4
Wensman	W 7290VT3PRO	VT3P	AC,P5V	99	216.8	15.4	4	1,624	13	216.9	<b>231.8</b>	230.4	212.9	188.7	<b>220.2</b>
Mustang	5808	STX	AC,P2	98	216.7	16.0	2	1,620	14	216.9	223.7	240.2	214.4	192.7	212.4
Prairie Brand	981VT3	VT3	AVC,C2	99	216.1	15.6	3	1,618	15	<b>224.5</b>	227.1	<b>243.1</b>	215.0	174.8	212.1
Producers	5514VT3Pro	VT3P	AC,P5V	95	215.0	14.9	0	1,613	16	212.6	228.5	233.7	227.5	179.8	207.8
Renk	RK598VT3P	VT3P	AC,P2	100	214.9	15.0	1	1,612	17	214.1	224.9	227.6	228.9	185.6	208.1
Channel	196-76VT3P	VT3P	AC,P5V	96	214.7	15.2	0	1,609	18	196.2	<b>230.0</b>	231.0	213.5	<b>207.5</b>	<b>209.9</b>
Pioneer	P9917AM1 GC	AM1,RR2	MQ,C2	99	214.6	16.0	9	1,604	20	202.7	220.1	220.9	231.9	<b>202.4</b>	209.8
Viking	D71-01RL	STX	AC,P2	100	214.2	15.2	2	1,605	19	213.8	222.5	228.2	224.7	186.9	209.2
Dekalb	DKC46-20 GC	VT3P	AC,P2	96	213.8	15.0	0	1,604	21	216.4	216.0	230.7	222.2	182.5	215.2
Kruger	K-7195	VT3P	AC,P5V	95	213.1	14.8	4	1,598	22	220.8	228.2	227.9	199.6	194.1	207.7
Jung	7V499	VT3P	AC,P5V	99	213.1	15.2	2	1,597	23	198.8	218.8	239.0	215.8	<b>201.8</b>	204.1
Dyna-Gro	D39VP14	VT3P	AC,P5V	99	213.1	16.0	0	1,593	24	198.2	226.9	233.8	220.0	176.5	<b>223.1</b>
Titan Pro	X2M95	VT3P	AC,P5V	95	212.6	15.3	1	1,593	25	200.7	223.5	234.8	224.7	178.2	213.5
Gold Country	95-33GENVT3P	VT3P	AC,P5V	95	212.2	14.8	0	1,592	26	215.7	220.8	227.2	221.4	181.9	206.2
AgriGold	A6203VT3	VT3	AC,P5V	97	211.8	15.1	0	1,588	27	190.2	<b>221.3</b>	234.2	221.5	196.7	206.9
Viking	Y84-00RL	3000GT	MQ,C2	100	211.6	15.6	6	1,584	31	217.7	<b>230.4</b>	225.0	216.9	162.7	216.7
Titan Pro	X2M00	VT3P	AC,P2	100	211.5	15.1	1	1,586	28	199.6	<b>230.3</b>	234.0	221.9	171.7	211.2
Dyna-Gro	D37VP71	VT3P	AC,P2	97	211.3	15.1	1	1,584	30	219.7	221.5	223.4	213.9	178.8	210.7
Dekalb	DKC50-66 CK	VT3	AC,P2	100	211.4	14.9	0	1,586	29	195.9	217.4	222.5	221.5	<b>198.4</b>	212.8
<b>Test Average =</b>					<b>208.7</b>	<b>15.3</b>	<b>2</b>	<b>1,563</b>		<b>203.4</b>	<b>219.5</b>	<b>228.2</b>	<b>217.6</b>	<b>177.3</b>	<b>205.9</b>
LSD (0.10) =					9.8	0.5	7			19.3	9.9	13.5	18.0	20.8	13.9

## FULL-SEASON TEST 101-104 Day CRM

Top 30 of 54 tested

Viking	C78-04R	VT3P	AC,P2	104	<b>229.9</b>	16.4	18	1,716	1	<b>249.0</b>	<b>238.0</b>	<b>252.6</b>	<b>246.9</b>	178.8	214.0
Titan Pro	81A04GL	3000GT	MQ,C2	104	<b>229.9</b>	17.3	8	1,711	2	<b>254.4</b>	<b>239.6</b>	<b>261.6</b>	<b>233.7</b>	167.5	222.7
Kruger	K-6201VT3	VT3	AC,P5V	101	<b>226.7</b>	17.3	7	1,687	3	205.5	232.5	<b>249.6</b>	<b>242.3</b>	<b>196.7</b>	<b>233.3</b>
Pioneer	P0533AM1 GC	AM1,RR2	MQ,C2	105	<b>226.1</b>	17.6	9	1,681	5	223.4	<b>245.7</b>	<b>249.8</b>	224.0	188.2	225.3
G2 Genetics	5H-202^	HX,RR2	MQ,R,P1V	102	<b>225.2</b>	16.3	6	1,682	4	<b>237.3</b>	224.2	<b>256.2</b>	<b>235.9</b>	186.0	211.8
AgriGold	A6323GT3	3000GT	AC,P5V	103	<b>224.8</b>	17.2	17	1,674	8	<b>240.2</b>	<b>236.7</b>	<b>253.2</b>	217.5	171.9	229.2
Producers	XP6104VT3Pro	VT3P	AC,P5V	101	<b>224.4</b>	16.1	4	1,677	6	229.8	<b>236.4</b>	<b>252.6</b>	223.8	172.5	<b>231.2</b>
Trelay	5VP688	VT3P	AC,P5V	101	<b>224.4</b>	16.5	8	1,675	7	213.8	<b>240.0</b>	240.8	224.7	<b>198.2</b>	229.0
Channel	202-25VT3P	VT3P	AC,P5V	102	222.9	16.0	10	1,666	9	226.9	<b>237.4</b>	234.5	226.7	178.9	<b>232.7</b>
Wensman	W 9325VT3PRO	VT3P	AC,P5V	102	222.2	15.9	7	1,662	10	<b>237.2</b>	<b>236.3</b>	<b>250.4</b>	220.5	171.2	217.8
Dekalb	DKC52-04 GC	VT3P	AC,P2	102	221.3	16.5	3	1,652	11	221.0	<b>246.9</b>	229.8	227.3	181.0	221.7
LG Seeds	LG2501VT3Pro	VT3P	AC,P5V	101	220.1	15.7	4	1,647	12	208.2	228.9	245.3	230.6	180.9	226.5
Titan Pro	1M02-SS	STX	AC,P2	102	219.2	16.0	7	1,639	13	205.4	<b>252.6</b>	242.8	220.5	176.3	217.4
Channel	203-43VT3P	VT3P	AC,P5V	103	218.8	16.7	4	1,632	14	225.9	233.9	247.8	209.6	188.5	207.2
Kruger	KR-4104	VT2P-R	AC,P5V	104	218.1	17.5	5	1,622	15	214.9	234.0	<b>250.5</b>	223.6	170.5	215.1
NuTech	5B-604	GT/CB/LL	MQ,R,C2	104	216.9	17.4	16	1,614	18	233.4	228.2	<b>265.8</b>	184.6	170.1	219.3
Anderson	537VT3P	VT3P	CE,C2	101	216.6	15.6	2	1,621	16	215.6	230.8	231.8	220.7	182.7	217.8
Renk	RK629VT3P	VT3P	AC,P2	101	216.6	16.7	1	1,615	17	215.4	223.1	243.1	221.3	173.3	223.1
Dekalb	DKC52-59 GC	VT3	AC,P2	102	215.7	16.4	2	1,610	19	184.7	<b>241.8</b>	223.6	228.8	187.3	228.0
Mustang	6460	3000GT	AC,P2	103	214.1	17.0	8	1,595	23	219.8	228.9	231.0	225.2	156.8	222.7
Dekalb	DKC53-78RIB GC	STX-R	AC,P2	103	213.9	16.6	5	1,596	21	206.4	229.3	239.7	222.0	180.0	206.0
Jung	7V540	VT3P	AC,P5V	101	213.8	15.8	14	1,599	20	211.6	233.7	<b>249.3</b>	209.2	177.8	201.2
Viking	C94-01R	VT3P	AC,P2	101	213.4	16.0	0	1,595	22	201.1	227.8	231.5	221.3	179.9	219.0
G2 Genetics	5Z-802^	OL,RR2	MQ,R,P1V	102	212.8	16.3	1	1,589	24	221.7	229.4	226.0	226.6	176.0	197.3
Wensman	W 7330VT3	VT3	AC,P5V	103	212.4	16.0	1	1,588	25	221.8	220.7	<b>249.1</b>	217.5	165.0	200.5
LG Seeds	LG5522VT3Pro	VT3P	AC,P5V	103	212.3	16.7	1	1,583	26	219.4	214.7	237.8	218.9	173.3	209.8
Trelay	6ST576RIB	STX-R	AC,P5V	104	212.3	17.6	17	1,579	28	223.1	220.9	242.8	213.8	170.5	202.5
Titan Pro	2M01-3P	VT3P	AC,P5V	101	211.3	16.1	2	1,579	27	203.4	228.2	221.9	223.2	179.4	211.9
NuTech	5N-001	3000GT	MQ,R,C2	101	211.0	16.1	11	1,577	30	214.5	229.0	233.7	216.9	170.1	201.6
Dairyland	DS9501SSX	STX	AVC,C2	101	210.6	15.5	6	1,577	29	234.3	209.3	242.2	210.0	161.4	206.4
Dekalb	DKC50-66 CK	VT3	AC,P2	100	207.5	15.4	0	1,554	38	189.2	223.5	224.8	211.6	183.4	212.6
<b>Test Average =</b>					<b>212.1</b>	<b>16.6</b>	<b>8</b>	<b>1,582</b>		<b>213.1</b>	<b>225.0</b>	<b>237.0</b>	<b>215.4</b>	<b>171.4</b>	<b>210.6</b>
LSD (0.10) =					11.2	0.7	ns			22.1	10.8	11.5	16.9	19.9	19.7

# F.I.R.S.T. North Dakota East Central Soybean Results

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Casselton	loam	conventional	30	5/13	119.6	none	-1.99
Clifford	loamy sand	conventional	30	5/10	122.5	medium	-1.80
Dazey	loam	minimum	30	5/14	116.1	low	-1.84
Thompson	sandy clay loam	conventional	30	5/9	120.8	low	-1.33

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.



Kevin Coey, F.I.R.S.T. Manager

### Soybean Stats:

Yield Range: 37.7-51.6 bu. per acre  
 Yield Average: 44.3 bu. per acre  
 Top \$ Per Acre: \$774.00

## Soybean Field Notes: North Dakota East Central

**Casselton**—The Casselton, N.D., site was situated on what appeared to be a very uniform area but which proved not to be. A few high-salt spots had reduced soybean yields in those areas. Apart from that the data was acceptable. Bob Runck, F.I.R.S.T. farmer, mentioned that yields were running in the high 60s on the other side of the quarter. Meanwhile, this test plot averaged only 42.9 bu. per acre.

**Clifford**—The Clifford site caught a few late rains that finished the plot off nicely. Some differential across the plot made for unequal productivity, as is reflected in the least significant

difference line of the report. The plant heights and stands down the row were largely uniform and acceptable. A soil sample tested positive for cyst nematodes but symptoms in the crop were not detected. The average yield on this plot was 44.3 bu. per acre.

**Dazey**—This site was situated on high ground and benefited from uniform stands down the row. F.I.R.S.T. farmer Eric Broten saw above-average plant height and excellent plant health. Limited rainfall without watershed lowered yields but made for good data quality. Bottom pods were well above the platform and grain size appeared slightly above average.

This East Central North Dakota plot averaged the same 44.3 bu. per acre that neighboring test site Clifford did.

**Thompson**—The Thompson test plot was situated on a very dark, flat and uniform field typical of the valley. F.I.R.S.T. farmer Jason Nelson had growing conditions that were favorable through most of the season with no significant pest pressure observed. By harvest it looked like yields would run 5–10 bu. per acre higher than they actually did; in the end the average yield here was 45.6 bu. per acre. This report provides above-average insight on yield potential and standability.

### 0.0-0.7 Maturity Group

Top 20 of 60 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Casselton	Clifford	Dazey	Thompson
Prairie Brand	PB-0441R2 §	RR2Y	0.4	S	CMB	51.6	9.9	1	774	53.1	55.3	51.4	46.7
Renk	RS053R2	RR2Y	0.5	S	None	50.9	9.8	1	764	52.2	47.2	49.2	55.0
Kruger	K2-0504	RR2Y	0.5	S	Ac,PV	49.8	9.8	1	747	53.9	45.6	46.4	53.3
Proseed	P2 11-50	RR2Y	0.5	S	None	49.4	9.9	3	741	47.7	49.5	53.4	47.0
Croplan	R2T0601 §	RR2Y	0.6	S	CMB	48.6	9.9	3	729	48.2	51.8	47.8	46.7
Wensman	W 3032R2	RR2Y	0.3	S	Ac	48.4	9.9	1	726	47.0	48.3	47.5	50.6
Prairie Brand	PB-0510R2	RR2Y	0.5	S	CMB	48.4	9.8	2	726	50.2	49.0	53.9	40.3
Pioneer	90Y50 §	RR	0.5	S	None	48.0	9.9	2	720	49.2	48.4	41.0	53.4
Stine	04RC08 §	RR2Y	0.4	S	None	47.9	9.9	2	719	46.4	50.3	49.0	45.7
Peterson	12R05 §	RR2Y	0.5	S	None	47.9	10.0	3	719	49.8	47.9	46.4	47.6
Asgrow	AG0430 §	RR2Y	0.4	S	Ac,PV	47.4	9.9	1	711	49.0	48.3	43.1	49.0
Wensman	W 3050NR2	RR2Y	0.5	MR	Ac	47.3	9.9	1	710	48.3	48.3	41.8	50.6
Mustang	M-04403	RR2Y	0.4	S	Ac	47.2	9.8	1	708	46.5	52.0	44.0	46.4
Kruger	K2-0601	RR2Y	0.6	S	Ac,PV	46.7	9.9	3	701	42.3	48.2	47.2	49.0
Kruger	K2-0402	RR2Y	0.4	S	Ac,PV	46.6	9.9	1	699	47.2	49.2	43.0	46.8
Hefty	H01R3 §	RR2Y	0.1	S	None	46.4	9.9	1	696	45.9	48.5	44.8	46.5
Proseed	P2 20-30 §	RR2Y	0.3	S	None	46.4	10.0	1	696	43.5	46.9	47.2	47.9
Hefty	H07R3	RR2Y	0.7	S	None	46.2	9.8	1	693	45.3	48.4	44.6	46.3
Kruger	K2-0503	RR2Y	0.5	S	Ac,PV	46.2	9.9	2	693	48.1	53.0	41.6	41.9
Hefty	H06Y12 §	RR2Y	0.6	S	None	46.0	9.9	3	690	44.2	50.9	47.4	41.4
<b>Site Averages =</b>			<b>44.3</b>			<b>44.3</b>	<b>9.9</b>	<b>1</b>	<b>665</b>	<b>42.9</b>	<b>44.3</b>	<b>44.3</b>	<b>45.6</b>
LSD (0.10) =			4.3			ns	ns	ns		8.4	9.5	6.0	4.9

# F.I.R.S.T. North Dakota Southeast Soybean Results

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Colfax	loamy sand	strip-till	30	5/16	116.3	low	-0.72
Great Bend	loam	conventional	30	5/15	113.9	low	-0.17
Litchville	loam	no-till	30	5/18	115.1	none	-1.15
Oakes	loam	no-till	30	5/20	114.8	none	-1.87

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.



Kevin Coey, F.I.R.S.T. Manager

### Soybean Stats:

Yield Range: 35.7-47.5 bu. per acre  
 Yield Average: 42.4 bu. per acre  
 Top \$ Per Acre: \$712.50

## Soybean Field Notes: North Dakota Southeast

**Colfax**—This plot had very sandy soil and yet measured high in organic material. The plot was planted into a good seed bed but many of the stands were compromised by small gaps and the presence of scattered stem disease. Note the soybean cyst nematode (SCN) resistance. Jay Myers, F.I.R.S.T. farmer, mentioned that his soybeans yielded much higher on his heavier soil but August rains added bushels until the soybeans were ready to harvest. The average yield on this test plot was 42.3 bu. per acre.

**Great Bend**—F.I.R.S.T. farmer Jeff Leinen's test plot had a slow start, which was followed by

steady progress through flowering. This progress resulted in average plant height. Small pods and seeds at the top of the plants were the product of August heat and drought stress. Plant health and solid stands down the row contributed to reasonable data quality, but the low soil pH measurement at this site might account for atypical varietal performance.

**Litchville**—The Litchville test was planted into a multi-year no-till field. Long segments of corn stalks lay flat and parallel to the planting direction, resulting in reduced stands and numerous small gaps, but this was hard to see by harvest. Early-season varieties ap-

peared to be favored here this year. Several varieties suffered poor stem health. Plants were below average for height but produced large grain. Average yield on this test was 43.4 bu. per acre.

**Oakes**—The Oakes test was planted on a fairly flat western slope between standing corn stalks and cow manure. The crop had a slow start that reduced stands but they were solid down the row. It finished with plant height slightly above average, but limited soil moisture in August made for smaller grain and easy threshing. Like the Litchville site, the earlier-maturing varieties appeared to have an advantage.

### 0.5-1.2 Maturity Group

Top 20 of 66 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Colfax	Great Bend	Litchville	Oakes
Wensman	W 3050NR2	RR2Y	0.5	MR	Ac	47.5	9.2	1	713	44.8	49.2	49.4	46.5
Wensman	W 3090NR2	RR2Y	0.9	MR	Ac	46.4	9.1	1	696	48.2	43.2	48.0	46.2
Prairie Brand	PB-0863R2 §	RR2Y	0.8	MR	CMB	46.3	9.2	1	695	41.3	43.5	49.7	50.7
Hefty	H06Y12 §	RR2Y	0.6	S	None	46.2	9.0	1	693	47.6	40.0	45.4	51.7
Renk	RS053R2 §	RR2Y	0.5	S	None	46.1	9.2	1	692	47.9	39.7	47.6	49.2
Peterson	11R08 §	RR2Y	0.8	S	None	45.8	9.0	2	687	52.1	45.6	46.0	39.5
Proseed	P2 11-50	RR2Y	0.5	S	None	44.9	9.1	1	674	42.9	43.7	46.9	46.2
Mycogen	5B080R2 §	RR2Y	0.8	S	CMB	44.7	8.8	1	671	45.7	44.3	46.0	42.9
Proseed	P2 2-140	RR2Y	1.4	R	None	44.6	9.2	1	669	46.5	45.9	42.6	43.4
Wensman	W 3076R2 §	RR2Y	0.7	S	Ac	44.6	9.0	1	669	42.7	41.1	47.2	47.4
Pioneer	91Y01 §	RR	1.0	S	T6	44.5	8.9	4	668	44.8	43.6	44.7	44.7
Wensman	W 3058R2 §	RR2Y	0.5	S	Ac	44.4	9.0	1	666	43.8	42.9	44.9	46.1
Proseed	P2 20-90	RR2Y	0.9	R	None	44.3	9.0	1	665	51.9	41.8	45.3	38.0
NK Brand	S06-R9 §	RR2Y	0.6	S	CMB	44.1	9.0	1	662	45.8	39.1	46.6	44.9
Dairyland	DSR-0747R2Y §	RR2Y	0.7	S	CMB	44.0	9.1	2	660	35.1	43.6	45.5	51.8
Asgrow	AG0832 §	RR2Y	0.8	S	Ac,PV	43.9	9.1	1	659	52.4	41.7	41.8	39.7
Kruger	K2-0601 §	RR2Y	0.6	S	Ac,PV	43.8	9.0	1	657	43.8	41.3	43.5	46.4
Kruger	K2-0503 §	RR2Y	0.5	S	Ac,PV	43.8	9.1	1	657	41.5	41.0	45.7	46.9
Kruger	K2-0504 §	RR2Y	0.5	S	Ac,PV	43.7	9.3	1	656	40.8	38.8	46.3	49.0
Dairyland	DSR-1215R2Y	RR2Y	1.2	S	CMB	43.6	9.3	1	654	47.3	45.8	44.0	37.1
<b>Site Averages =</b>			<b>42.4</b>	<b>9.1</b>	<b>1</b>	<b>636</b>	<b>42.3</b>	<b>42.3</b>	<b>43.4</b>	<b>42.3</b>	<b>43.4</b>	<b>41.6</b>	
LSD (0.10) =			4.4	ns	ns		7.6	4.2	5.4	8.8			

# F.I.R.S.T. South Dakota Northeast Soybean Results

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Bath	silt loam	no-till	30	5/15	85.5	low	-0.80
Clear Lake	silty clay loam	conventional	30	5/22	91.3	medium	0.04
Groton	silt loam	no-till	30	5/15	93.1	low	-1.42
Webster	silty clay	no-till	30	5/22	92.8	low	-1.96

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.



Mark Tollefson, F.I.R.S.T. Manager

### Soybean Stats:

Yield Range: 43.7-58.6 bu. per acre  
 Yield Average: 51.8 bu. per acre  
 Top \$ Per Acre: \$966.90

## Soybean Field Notes: South Dakota Northeast

**Bath**—This no-till plot had a lot of residue on the ground at planting and emergence was not the best. The plants compensated well and we had a nice-looking plot at harvest. Total precipitation from May through August was more than 5.5" below the 30-year normal. The no-till ground helped hold moisture and produce good yields. Scott Sperry, F.I.R.S.T. farmer, reported that he had a record bean yield this year. This test site averaged 53.5 bu. per acre.

**Clear Lake**—The soybeans on this test plot were nearly 3' tall, were clean and stood very straight at harvest. The pods were quite dry; some of them popped open

when combined. While a portion of the yield potential was lost in July due to the hot and dry weather slowing growth, normal rainfall in August helped boost yields. Average yields at test site were 41.3 bu. per acre.

**Groton**—This test site was a real nice-looking soybean field at harvest with many plants over waist height. F.I.R.S.T. farmer Scott Sperry noticed that across the field he had consistent yields, which has been somewhat rare this year with the drought stress in many areas. The soybeans here were above average in terms of yield as well, as you can see in the report. Most of the soybeans stood well

with no lodging problems, which contributed to an excellent harvest. The average yield at this site was 60.6 bu. per acre.

**Webster**—We had some weed pressure before and after planting at the Webster test site. After spraying for weeds, field growing conditions improved but the weather turned hot and dry in July and August to create even more stress. The soybeans did not achieve canopy closure and weeds broke through in late summer. The growing conditions led to variable soybean heights of 18–36" throughout the plot. This test was rejected due to highly variable yields within the test.

### 1.0-1.7 Maturity Group

Top 20 of 54 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Bath	Clear Lake	Groton	Webster#
Wensman	W 3140R2	RR2Y	1.4	S	Ac	58.6	8.0	8	967	58.5	56.4	60.8	36.6
Wensman	W 3108R2	RR2Y	1.0	S	Ac	56.9	7.6	3	939	56.7	49.9	64.2	31.8
Hefty	H17Y12	RR2Y	1.7	MR	I	56.3	7.9	8	929	62.8	44.2	61.8	40.3
Kruger	K2-1301	RR2Y	1.3	R	Ac,PV	56.1	7.7	7	926	63.1	44.7	60.5	32.3
Prairie Brand	PB-1591R2	RR2Y	1.5	S	None	56.1	8.0	8	926	59.1	48.9	60.4	31.9
Hefty	H13Y11	RR2Y	1.3	S	I	55.8	7.7	8	921	59.3	49.8	58.2	39.6
Hefty	H14R3	RR2Y	1.4	MR	I	55.7	7.7	3	919	56.1	47.6	63.3	32.4
Dyna-Gro	S15RY53	RR2Y	1.5	R	Ac	55.1	7.9	7	909	60.8	41.1	63.5	27.0
Gold Country	1741	RR2Y	1.7	R	Ac	54.3	7.8	3	896	56.1	45.8	61.0	42.0
Titan Pro	18M10	RR2Y	1.8	R	CMB	54.3	7.8	7	896	60.3	40.9	61.7	47.0
Kruger	K2-1001	RR2Y	1.0	S	Ac,PV	54.1	7.7	6	893	61.5	38.4	62.3	36.0
Titan Pro	15M22	RR2Y	1.5	R	CMB	53.8	7.7	5	888	56.0	41.9	63.5	40.4
Asgrow	AG1132 \$	RR2Y	1.1	S	Ac,PV	53.7	7.7	3	886	56.3	43.4	61.4	40.1
Viking	1100R2	RR2Y	1.1	S	None	53.7	7.6	4	886	59.6	41.6	59.8	42.5
NK Brand	S10-G7 \$	RR2Y	1.0	S	CMB	53.7	7.6	7	886	54.1	42.7	64.4	32.9
Prairie Brand	PB-1722R2	RR2Y	1.7	R	CMB	53.6	7.7	2	884	54.7	44.5	61.5	39.8
Stine	16RA02 \$	RR2Y	1.6	R	None	53.5	7.8	4	883	58.4	38.0	64.2	40.2
Kruger	K2-1102	RR2Y	1.1	S	Ac,PV	53.3	7.8	8	880	58.7	41.5	59.7	35.9
Wensman	W 3120R2	RR2Y	1.2	S	Ac	53.1	7.7	8	876	56.0	41.7	61.7	34.2
NorthStar	NS 1257R2	RR2Y	1.2	R	Ac	52.7	7.6	2	870	48.4	48.9	60.8	34.8
<b>Site Averages =</b>						<b>51.8</b>	<b>7.7</b>	<b>5</b>	<b>854</b>	<b>53.5</b>	<b>41.3</b>	<b>60.6</b>	<b>35.2</b>
LSD (0.10) =						5.3	0.2	ns		6.8	5.7	4.9	8.8

# = rejected results, not in summary

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## Bayer CropScience's Poncho/VOTiVO Seed Treatment Strengthens Crops

For more than three decades, Bob Mehmert has been growing corn and soybeans on his 700-acre farm in West Point, Iowa. Mehmert Farms is family-owned and splits the acreage between corn and soybeans and rotates the crops every year.

For the 2012 growing season, Mehmert's seed salesman discussed treating some of his soybeans with Bayer CropScience's Poncho®/VOTiVO® seed treatment. Mehmert had never used a seed treatment before but was willing to try a mini-bulk (50 bags) of soybean seed treated with Poncho/VOTiVO.

Poncho/VOTiVO is a seed treatment that combines the most trusted seed-applied insecticide in corn with the most revolutionary, complete nematode protection on the seed. The result is a powerful seed treatment for corn and soybeans that protects early-season seedlings and roots from numerous insect and nematode pests, both above and below ground.

It contains a unique strain of bacteria that, upon seed germination, begins to grow and multiply. The bacteria continue to increase with the developing plant, blocking nematodes, including the soybean cyst nematode (SCN), from reaching the root surface, thereby protecting the plant's roots from damage. The insecticide component of Poncho/VOTiVO also provides fast-acting, long-lasting insect control for pests, such as early-season aphids, overwintering bean leaf beetles, grape colaspis, seed corn maggots and wireworms, which are commonly found in soybeans.

Poncho/VOTiVO's control and suppression of damaging pests and unique combination of an insecticide and biological seed treatment represent exciting proof points of Bayer CropScience's commitment to cultivating ideas and answers.

"When my seed salesman approached me about using Poncho/VOTiVO on my soybeans this year, I viewed it as just another gimmick," stated Mehmert. "However, I was willing to give it a try on about 50 acres out of 130 acres of my soybeans."

Mehmert planted the Poncho/VOTiVO-treated soybean seeds next to the untreated soybean seeds. This allowed for a



side-by-side comparison in the field where all the growing conditions and cultural practices were the same – the only difference was Poncho/VOTiVO. And, the comparison between the Poncho/VOTiVO soybeans and untreated soybeans was unmistakable.

"Before I even harvested with my combine, it was unreal to see the line of Poncho/VOTiVO-treated crops that looked healthier and were taller than the untreated crops – even my 11-year-old son could tell the difference," stated Mehmert. "The stem quality of the Poncho/VOTiVO soybeans was so much better than the untreated soybeans. The stems of the treated soybeans didn't have any dead spots, and you could tell that the root system was better."

He harvested the soybeans mid-October and was amazed when he noticed the combine's yield monitor results. "In the untreated soybeans, there was 11 to 12.5 percent moisture, but in the Poncho/VOTiVO soybeans, the crops were about two percent wetter – running at 14 to 15.5 percent moisture," stated Mehmert. "The most impressive and exciting finding was that the combine was showing that the Poncho/VOTiVO soybeans produced 10 to 12 bushels per acre more than the untreated soybeans."

Mehmert had been hesitant to purchase Poncho/VOTiVO, but soon realized that just half a bushel of added yield paid for the seed treatment. And, after this year's drought, he is looking forward to seeing what Poncho/VOTiVO will do for his soybeans in a wet year.

"Next year, we are supposed to go into an El Niño weather pattern, which produces more rain. And in wet years, we experience more diseases in soybeans," stated Mehmert. "Because of the success I had with the Poncho/VOTiVO soybeans this growing season, I'm planning on using Poncho/VOTiVO on all of my soybeans, and I'm really anticipating what I will see next year with a different type of weather pattern."

For more information about Poncho/VOTiVO, visit [www.BayerCropScience.us](http://www.BayerCropScience.us) or contact your local sales representative for product information.



# F.I.R.S.T. South Dakota East Central Soybean Results

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Cavour	loam	no-till	30	5/22	96.5	low	0.28
Colton	silty clay loam	conventional	30	5/19	99.1	low	-0.33
Flandreau	clay loam	conventional	30	5/23	87.9	medium	-1.63
Howard	loam	no-till	30	5/22	91.1	low	-1.64

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.



Mark Tollefson, F.I.R.S.T. Manager

### Soybean Stats:

Yield Range: 38.9-56.1 bu. per acre

Yield Average: 48.5 bu. per acre

Top \$ Per Acre: \$925.70

## Soybean Field Notes: South Dakota East Central

**Cavour**—There was some unevenness in this plot as the more elevated ground had shorter soybeans and lower yields. May rainfall was 1" above average and we got off to a good start. It was a hot, dry summer, and the total combined June and July precipitation was 2.5" below average. We had near-normal rainfall in August which helped boost yields a bit to the levels you see in the report.

**Colton**—We had plenty of moisture after planting, as May rainfall was 4" above average. June and July were dry; rainfall was at least 3" below average in each month. We got some timely August

rains, which helped boost yields. At harvest, soybean pods were very dry, splitting open on contact with the combine reel, and many soybeans were hitting the combine windshield. The soybeans on the north side of the plot were lodged and down-fallen, as it looked like wind had blown them over this fall. We saw a little pod-shattering of the soybeans at the combine head, as the grain moistures dropped to 7% in many varieties.

**Flandreau**—The soybeans at the Flandreau test site were over waist high at harvest. Despite being very dry at harvest, soybean pods didn't shatter before harvest and soybeans did not split during combining. We

lost some soybeans at the combine head, as pods cracked open easily. In May this area received over 11" of rain, more than 7" over the 30-year normal for the month. All the rain in May caused emergence issues as seeds germinated and struggled to break through the crust on the soil surface.

**Howard**—While the summer was dry, the soybean leaves never really curled up from a lack of moisture. The soybeans did show some drought stress at the time of harvest, as some variable plant heights could be seen. Even though the soybeans were dry, they harvested okay and didn't shatter too badly.

### 1.6-2.3 Maturity Group

Top 20 of 58 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Cavour	Colton	Flandreau	Howard
Hefty	H21R3	RR2Y	2.1	S	I	56.1	8.1	5	926	42.9	67.8	66.1	47.4
Titan Pro	23M9	RR2Y	2.3	S	CMB	55.5	8.9	6	916	41.1	57.6	74.5	48.7
Prairie Brand	PB-2230R2	RR2Y	2.2	S	CMB	54.1	8.1	4	893	40.0	59.9	70.4	46.1
Kruger	K2-2301	RR2Y	2.3	S	Ac,PV	53.6	8.5	4	884	39.8	59.9	65.0	49.6
Gold Country	2342	RR2Y	2.3	R	Ac	53.3	7.9	2	880	51.9	55.4	65.2	40.5
Wensman	W 3222NR2	RR2Y	2.2	R	Ac	53.0	7.9	4	875	46.3	58.4	64.4	42.8
Wensman	W 3230R2	RR2Y	2.3	S	Ac	52.9	8.7	4	873	38.6	58.4	69.2	45.2
Wensman	W 3210NR2	RR2Y	2.1	R	Ac	52.7	7.7	5	870	47.0	67.8	59.6	36.2
Mustang	M-21993	RR2Y	2.1	S	Ac	52.5	8.0	5	866	43.9	59.4	63.2	43.6
Pioneer	92Y30 §	RR	2.3	R	None	52.3	8.8	3	863	48.7	57.4	64.5	38.5
Titan Pro	20M1	RR2Y	2.0	R	Am	52.0	7.6	4	858	49.1	56.8	57.0	44.9
Kruger	K2-1602	RR2Y	1.6	R	Ac,PV	51.9	7.4	6	856	50.5	59.3	56.5	41.3
Stine	19RA02 §	RR2Y	1.9	R	CMB	50.9	7.6	3	840	51.3	48.7	64.4	39.3
Prairie Brand	PB-2042R2	RR2Y	2.0	R	CMB	50.7	7.8	3	837	41.6	52.6	65.2	43.3
Asgrow	AG1631 §	RR2Y	1.6	R	Ac,PV	50.7	7.4	4	837	46.9	58.1	64.9	33.0
Wensman	W 3160NR2	RR2Y	1.6	R	Ac	50.4	7.5	3	832	46.3	52.3	62.3	40.6
Mustang	M-22823	RR2Y	2.2	R	Ac	50.0	8.3	3	825	40.1	52.4	67.3	40.3
Prairie Brand	PB-1722R2	RR2Y	1.7	R	CMB	49.7	7.4	3	820	33.2	60.7	60.4	44.3
Stine	16RA02 §	RR2Y	1.6	R	None	49.5	7.4	4	817	42.5	57.1	58.2	40.3
Mustang	M-20823	RR2Y	2.0	R	Ac	49.5	7.5	4	817	46.2	51.4	54.9	45.4
<b>Site Averages =</b>						<b>48.5</b>	<b>7.8</b>	<b>4</b>	<b>800</b>	<b>42.2</b>	<b>52.8</b>	<b>59.2</b>	<b>39.7</b>
LSD (0.10) =						5.6	8.0	ns		8.1	9.4	8.2	7.3

# F.I.R.S.T. South Dakota Southeast Soybean Results

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Beresford	silty clay loam	conventional	30	5/21	93.5	high	-0.85
Chancellor	silty clay loam	conventional	30	5/19	90.1	low	-1.77
Ethan	loam	no-till	30	5/18	89.7	low	-1.61
Salem	clay loam	minimum	30	5/18	91.7	low	-0.20

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.



Mark Tollfeson, F.I.R.S.T. Manager

### Soybean Stats:

Yield Range: 17.6-33.4 bu. per acre

Yield Average: 26.7 bu. per acre

Top \$ Per Acre: \$551.10

## Soybean Field Notes: South Dakota Southeast

**Beresford**—At harvest, soybean height here was around 18". Some weeds and grass showed up in the plots, as the soybeans failed to canopy due to drought. This plot had a lot of pods that popped open prior to harvest. Pod shatter was closely correlated to variety. Soybeans in this area yielded around 20 bu. per acre.

**Chancellor**—This was another drought site with poor grain quality and short soybean height. The soybeans were around 18" tall, which at times made it difficult to harvest. They sprayed for the volunteer corn, which didn't kill the corn because it was so dry but did stunt the growth enough that

the corn didn't develop ears. Craig Hoogestraat, father of F.I.R.S.T. farmer Brock Hoogestraat, said this was the worst year he'd had farming since 1993. Data here was rejected due to variable yields and inadequate grain quantity for moisture readings.

**Ethan**—This site was really hit hard with drought. Lewis Bainbridge, F.I.R.S.T. farmer, reported no measurable rain on his farm since June. The soybeans were 18" tall or shorter with very few pods. Grain quality was not the best; the soybeans were small and had a green tint. While harvesting we had some plots that didn't feed well into the head

due to being so short. Bainbridge reported yields of 10 bu. per acre in the field around the plot. Data here was rejected due to highly variable yields across replications and inadequate grain for moisture measurement.

**Salem**—This was an extremely dry plot at harvest. We lost a few soybeans at the combine head during harvest, as the pods were very brittle and broke open easily. Some area farmers saw a lot of soybeans on the ground before harvest because the pods cracked open, spilling their contents. The rain came too late for soybeans in this area and, as was common this year, the drought took its toll on yield.

### 2.1-2.8 Maturity Group

### Top 20 of 61 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Beresford#	Chancellor#	Ethan#	Salem
NK Brand	S24-K2 §	RR2Y	2.4	S	CMB	33.4	7.3	2	551	25.2	14.7	13.8	41.6
Prairie Brand	PB-2544R2	RR2Y	2.5	MR	CMB	33.2	7.5	1	548	21.0	15.3	18.3	45.3
Titan Pro	27M32	RR2Y	2.7	R	CMB	31.5	7.4	1	520	23.9	19.8	18.1	39.0
Kruger	K2-2301	RR2Y	2.3	S	Ac,PV	30.9	7.2	1	510	17.4	17.7	15.4	44.4
Prairie Brand	PB-2143R2	RR2Y	2.0	R	CMB	30.8	7.4	1	508	20.2	13.7	12.1	41.4
Prairie Brand	PB-2242R2	RR2Y	2.2	R	CMB	30.8	7.6	1	508	17.6	21.0	17.0	44.0
Kruger	K2-2803	RR2Y	2.8	R	Ac,PV	30.6	7.5	1	505	26.8	13.9	14.1	34.4
Wensman	W 3256NR2	RR2Y	2.5	MR	Ac	30.5	7.5	1	503	19.7	21.5	19.2	41.3
Hefty	H25Y12	RR2Y	2.5	MR	I	29.7	7.7	1	490	18.9	18.2	15.2	40.5
Hefty	H26R3	RR2Y	2.6	MR	I	29.4	7.4	1	485	20.5	16.2	19.3	38.3
Stine	24RB00 §	RR2Y	2.4	MR	CMB	29.2	7.5	1	482	18.1	13.9	11.2	40.3
Pioneer	92Y51 §	RR	2.5	R	T2,G	29.0	6.9	1	479	15.8	19.3	15.1	42.1
Dyna-Gro	39RY25	RR2Y	2.5	S	Ac	29.0	7.2	1	479	21.1	20.6	16.6	36.8
Hefty	H21R3	RR2Y	2.1	S	I	28.9	6.7	1	477	16.7	17.9	11.0	41.0
NorthStar	NS 1916NR2	RR2Y	1.9	R	Ac	28.7	7.2	1	474	13.7	13.5	16.0	43.6
Prairie Brand	PB-2230R2	RR2Y	2.2	S	CMB	28.5	7.6	1	470	18.5	16.8	20.5	38.4
Mustang	M-21993	RR2Y	2.1	S	Ac	28.3	7.3	1	467	16.9	14.4	12.5	39.6
Asgrow	AG2431 §	RR2Y	2.4	S	Ac,PV	28.1	7.1	1	464	16.7	18.2	8.2	39.4
Mustang	M-26623	RR2Y	2.6	R	Ac	28.1	7.5	1	464	19.0	16.2	17.8	37.1
Hefty	H23Y10	RR2Y	2.3	S	I	28.1	7.5	1	464	17.9	16.1	19.5	38.2
<b>Site Averages =</b>			<b>26.7</b>	<b>7.4</b>	<b>1</b>	<b>441</b>	<b>17.2</b>	<b>16.0</b>	<b>14.7</b>	<b>17.2</b>	<b>16.0</b>	<b>14.7</b>	<b>36.2</b>
LSD (0.10) =			ns	ns	ns					4.5	5.2	6.1	7.9

‡ = 2 replications; # = rejected results

# F.I.R.S.T. Minnesota Central Soybean Results

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Bird Island	clay loam	conventional	30	5/15	122.9	low	-1.25
Clinton	silty clay loam	conventional	30	5/15	122.9	low	-0.65
Glencoe	clay loam	conventional	30	5/15	123.7	low	-2.58
Litchfield	clay loam	conventional	30	5/15	123.1	low	-1.65

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.



Mark Querna, F.I.R.S.T. Manager

### Soybean Stats:

Yield Range: 42.9-59.9 bu. per acre

Yield Average: 52.4 bu. per acre

Top \$ Per Acre: \$898.50

## Soybean Field Notes: Minnesota Central

**Bird Island**—Planting conditions were very good here and crop growth was exceptional through June. Lack of rainfall in July and August lowered final yields to more normal numbers. Pest pressure was very low, which allowed the plants to utilize every bit of moisture they could find.

**Clinton**—This site, south of Clinton, was dry before spring work began. Good rain fell in May and June but it turned dry again from July through harvest. Doug Nelson, F.I.R.S.T. farmer, stated that he was surprised the beans yielded so well with so little rainfall. His field around the plot averaged 46 bu. per acre. Plants

were in good health, but the quick maturity and dry conditions left no moisture in the stems or pods.

**Glencoe**—Krcil Farms received over 19" of rain from early spring through early June (according to grower-supplied rainfall information), and these soybeans got off to a good start. With no pests to hamper yields and only light hail falling here on July 5 (soybean yields only a mile south averaged about), these soybeans put on a lot of vegetative growth. That usually does not translate directly to high yields, but it sure did this year. Plant height was above average and a lot of soybean residue

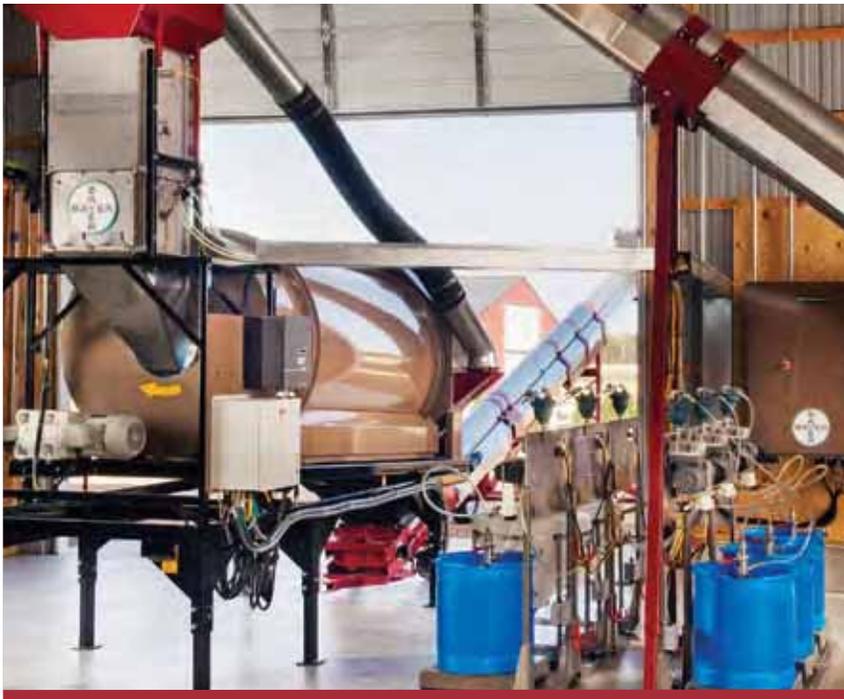
went through the combine. Needless to say, Gary and Mark Krcil were very happy with the yields of their soybeans that did not receive hail this summer.

**Litchfield**—Tom Walsh, F.I.R.S.T. farmer, received good rains through mid-June. Then water became a rare commodity, with very little rain falling from July through harvest. Differences in soils at this site were more noticeable due to the lack of rainfall and variability was higher for the same reason. Walsh noted that he was amazed by the yields of both his soybean and corn crops, considering the lack of quality rainfall in the latter half of the growing season.

### 1.3-2.0 Maturity Group

Top 20 of 63 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Brd Island	Clinton	Glencoe	Litchfield
Kruger	K2-1901	RR2Y	1.9	R	Ac,PV	59.9	8.1	0	899	56.4	58.7	65.0	59.3
Stine	19RA02 (2) §	RR2Y	1.9	R	CMB	58.0	8.1	0	870	53.4	56.2	68.2	54.0
Titan Pro	20M1	RR2Y	2.0	R	Am	57.4	8.0	0	861	52.5	54.2	67.1	55.7
Asgrow	AG1832 §	RR2Y	1.8	MR	Ac,PV	56.6	8.0	0	849	52.9	50.3	66.7	56.6
Stine	19RA02 §	RR2Y	1.9	R	CMB	56.5	8.1	1	848	55.3	50.7	67.0	52.8
Titan Pro	19M42	RR2Y	1.9	R	CMB	56.2	7.9	0	843	53.6	57.1	64.1	50.0
Wensman	W 3190NR2	RR2Y	1.9	R	Ac	56.1	7.9	0	842	54.5	49.6	67.2	53.2
Dairyland	DSR-1710R2Y	RR2Y	1.7	R	CMB	55.8	7.8	0	837	51.3	48.7	62.9	60.2
NK Brand	S18-C2 §	RR2Y	1.8	R	CMB	55.8	8.2	0	837	48.7	54.8	63.9	55.6
Prairie Brand	PB-1743R2	RR2Y	1.7	R	CMB	55.5	7.8	0	833	50.2	53.1	61.1	57.5
Hefty	H17Y12	RR2Y	1.7	MR	I	55.4	7.8	1	831	53.7	48.0	65.0	55.0
Channel	1700R2	RR2Y	1.7	R	Ac,PV	55.2	8.2	0	828	52.3	44.7	64.0	59.9
Hefty	H16Y11	RR2Y	1.6	MR	I	55.2	7.9	1	828	51.4	52.5	63.0	53.9
Hefty	H14R3	RR2Y	1.4	MR	I	54.8	7.9	0	822	49.7	47.2	67.7	54.4
LG Seeds	C2050R2	RR2Y	2.1	R	Ac	54.8	7.9	0	822	53.6	51.3	63.9	50.3
Trelay	20RR43	RR2Y	2.0	R	Ac,Ex	54.6	8.0	0	819	49.9	52.6	64.2	51.8
Dyna-Gro	S15RY53	RR2Y	1.5	R	Ac	54.4	7.9	0	816	53.6	43.1	62.8	57.9
Gold Country	1541	RR2Y	1.5	R	Ac	54.4	7.9	0	816	48.4	50.3	62.8	56.1
Anderson	162R2Y	RR2Y	1.6	R	None	54.4	7.9	0	816	51.3	51.2	62.5	52.6
Dyna-Gro	S18RY33	RR2Y	1.8	R	Ac	54.3	7.9	0	815	45.6	54.0	63.2	54.3
<b>Site Averages =</b>			<b>52.4</b>			<b>8.0</b>	<b>8.0</b>	<b>0</b>	<b>786</b>	<b>47.6</b>	<b>45.7</b>	<b>62.8</b>	<b>53.3</b>
LSD (0.10) =			4.8			0.3	ns			5.7	7.9	4.3	5.9



 **PONCHO**<sup>®</sup>

**VOTIVO**<sup>®</sup>

## SANDERS' SEEDS NOW PROVIDED "ON DEMAND"

### Bayer CropScience's New On Demand™ Seed Treatment System Increases Production for Jimmy Sanders, Inc.

#### ON DEMAND™ SEED TREATMENT

"Innovation in seed treatment application is essential to help growers protect their crops and achieve quality yields in a sustainable way," said Kerry Grossweiler, seed technology and application manager at Bayer CropScience LP. "On Demand is the first and only fully automated seed treatment system developed to make treating seeds easier, more accurate and more efficient – benefiting seed treaters and ultimately the growers as well." Bayer was keen to enlist seed treaters to use On Demand™ in a pilot program. They invited Vincent Kerperien, the Jimmy Sanders location manager in Light, Arkansas, to attend the pilot training. After learning about the program, Vincent agreed to install a system at his facility.

#### FAVORABLE FEEDBACK

Vincent has been using the system for the past 13 months and is pleased with the benefits it brings. "One of the most impressive features of the system is the reporting functionality, which includes batch reports," Vincent says. "In just minutes, you can determine how the seeds were treated, how many gallons of seed treatment were used and which treatments were employed on specific batches. The reporting features will help seed treaters keep track of information in a much easier and more accurate way than ever before. The On Demand chemical delivery system

is very accurate, which is extremely important in seed treating. On Demand takes a lot of the math and potential human error out of seed treatment."

"In a 10-hour day, On Demand has been saving us at least an hour every day," Vincent adds. He also points out that this system is popular with their employees, mainly because cleanup is safer and faster. Treaters used to have to clean 2.5-gallon jugs for disposal. Now they are no longer exposed to chemicals because On Demand is a completely closed system that reduces the risk of unnecessarily handling chemicals.

#### CLEAR RECOMMENDATION

"Another key point for me is that On Demand works just like Bayer CropScience said it would work," Vincent adds. "And it is easy to operate. Our company is definitely planning to continue using the On Demand system." And Vincent's customers will continue to benefit from buying their treated seeds on demand.

Jimmy Sanders, Inc. is a well-known name in Mid-South farming circles. Since the company was founded in 1953, it has grown into one of the leading agricultural input supply and distribution businesses in the Mid-South, operating from 77 locations in eight states. Its multifaceted operations include seed production and sales. This is where Jimmy Sanders and Bayer share a common interest.



## Soybean Field Notes: Minnesota South Central

### Soybean Stats:

Yield Range: 41.4-57.2 bu. per acre

Yield Average: 49.6 bu. per acre

Top \$ Per Acre: \$858.00

**Madison Lake**—A dry and snowless winter left the soil low on moisture before this year started. May brought over 6" of rain, which was less than many areas of southern Minnesota. Mike Krenik, F.I.R.S.T. farmer, stated that he missed the hail that passed north of his farm in June, but he also missed most of the moisture. Mike's rain gauge indicated June brought only 1" of rain and July and August each received only 1" of rain as well. These soybeans were showing signs of pod shatter, likely from the quick maturity and low moisture reserves as the beans filled out. Otherwise, lack of pest pressure did not hamper these plots.

**Nicollet**—This site was hit by high winds and devastating hail on June 18. The plant stems looked like green toothpicks after the hail. The photo below shows the stems immediately after the hail. Five days later the field was



Soybean stems in Wayne and Dale Bjorklund's field just after a hailstorm show damage. Five days later this field was re-planted because the stems had all died.

re-planted because the stems had all died. Bjorklund Farms lost 650 acres of soybeans in that hailstorm. Wayne Bjorklund, F.I.R.S.T. farmer, says the replanted beans averaged 35 bu. per acre while some fields they left intact and did not replant yielded in the teens. Prior to the hailstorm, this site had excellent yield potential.

**Tracy**—May was a rainy month, which hydrated the soil profile for the dry months of July and August. Just enough light rain fell here to allow soybeans to fill pods. Pest pressure was low and plant height was above average.

F.I.R.S.T. farmer Brian Hicks was able to produce an average of 51.9 bu. per acre in the early-season test and an average of 53.9 bu. per acre in the full-season test.

**Wabasso**—Planting conditions were good here and the soybeans got off to a great start. Excessive rain in May was followed by each month turning drier. Pests and diseases were kept at bay by this dry weather pattern. Leon Plaetz, F.I.R.S.T. farmer, was generally pleased with his soybean yields. A few small drizzles at the right time in August helped keep this plot on its feet.



The different colored rows showcase one of F.I.R.S.T. Manager Mark Querna's soybean plot trials. Soybean harvest at Wabasso occurred on Sept. 28. The average yield here was in the mid- to upper-40s bu. per acre.

Photos courtesy of Mark Querna

# F.I.R.S.T. Minnesota South Central Soybean Results



Mark Querna, F.I.R.S.T. Manager

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Madison Lake	clay loam	conventional	30	5/13	123.0	low	-2.82
Nicollet	clay loam	conventional	30	5/14	n/a	low	-3.10
Tracy	silty clay loam	conventional	30	5/14	124.6	medium	0.10
Wabasso	clay loam	conventional	30	5/14	123.7	medium	-0.73

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

## 1.5-1.8 Maturity Group

Top 20 of 42 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Madison Lake	Nicollet	Tracy	Wabasso
Trelay	15RR51	RR2Y	1.5	R	Ac,Ex	56.8	8.3	0	852	53.7		53.2	63.5
Jung	1170RR2	RR2Y	1.7	R	Ac,0	55.2	8.4	0	828	56.8		50.0	58.8
Renk	RS172NR2	RR2Y	1.7	R	None	54.1	8.4	0	812	53.0		56.9	52.4
Anderson	184R2Y	RR2Y	1.8	R	None	53.8	8.1	0	807	51.8		59.8	49.9
Anderson	163R2Y	RR2Y	1.6	R	None	52.9	7.8	0	794	52.1		56.1	50.4
Wensman	W 3160NR2	RR2Y	1.6	R	Ac	52.9	7.9	0	794	50.2		55.2	53.3
Viking	1522R2N	RR2Y	1.5	R	None	52.4	7.8	0	786	47.7		55.3	54.3
Stine	16RA02 §	RR2Y	1.6	R	None	52.4	7.9	0	786	57.7		52.4	47.1
Dairyland	DSR-1710R2Y	RR2Y	1.7	R	CMB	52.3	7.7	0	785	50.8		54.3	51.9
Hefty	H18Y12	RR2Y	1.8	MR	I	51.9	8.0	0	779	53.1		52.7	49.9
Renk	RS183NR2	RR2Y	1.8	R	None	51.7	7.8	0	776	48.6		57.3	49.3
NK Brand	S17-G8 §	RR2Y	1.7	R	CMB	51.4	7.8	0	771	51.4		54.2	48.7
Hefty	H16Y11	RR2Y	1.6	MR	I	51.3	7.8	0	770	53.3		51.0	49.6
Viking	1707R2N	RR2Y	1.7	R	Ac	51.3	7.8	0	770	47.0		56.6	50.4
NK Brand	S18-C2 §	RR2Y	1.8	R	CMB	51.3	8.0	0	770	49.9		53.5	50.5
Kruger	K2-1402	RR2Y	1.5	R	Ac,PV	51.3	8.0	0	770	51.3		50.1	52.6
Prairie Brand	PB-1743R2	RR2Y	1.7	R	CMB	51.0	8.4	0	765	46.1		51.1	55.7
LG Seeds	C1780R2	RR2Y	1.7	R	Ac	50.8	7.7	0	762	51.6		52.5	48.4
Prairie Brand	PB-1566R2	RR2Y	1.5	R	CMB	50.8	7.9	0	762	46.3		51.7	54.3
Gold Country	1741	RR2Y	1.7	R	Ac	50.7	7.8	0	761	47.2		53.2	51.6
Anderson	162R2Y CK	RR2Y	1.6	R	None	52.7	8.0	0	791	51.9		54.1	52.2
<b>Site Averages =</b>			<b>49.9</b>	<b>7.9</b>	<b>0</b>	<b>748</b>	<b>48.6</b>					<b>51.9</b>	<b>49.1</b>
LSD (0.10) =						4.9	ns	ns		5.9		4.7	7.1

Site Lost to Severe Hail Damage

## 1.9-2.2 Maturity Group

Top 20 of 54 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Madison Lake	Nicollet	Tracy	Wabasso
Kruger	K2-1901	RR2Y	1.9	R	Ac,PV	57.2	7.9	0	858	58.1		58.7	54.7
Titan Pro	20M1	RR2Y	2.0	R	Am	55.2	7.9	0	828	53.4		55.1	57.0
Latham	L1985R2	RR2Y	1.9	R	CMB	54.9	7.8	0	824	53.9		58.1	52.7
Viking	2000R2N	RR2Y	2.0	R	Ac	54.5	8.0	0	818	55.9		54.1	53.6
Latham	L2253R2	RR2Y	2.2	S	CMB	54.4	8.1	0	816	52.2		58.6	52.5
Prairie Brand	PB-2366R2	RR2Y	2.2	R	CMB	54.3	7.9	0	815	52.9		57.6	52.5
NorthStar	NS 1916NR2	RR2Y	1.9	R	Ac	54.0	7.8	0	810	57.2		57.9	47.0
Prairie Brand	PB-2230R2	RR2Y	2.2	S	CMB	53.2	8.4	0	798	51.4		56.1	52.1
Trelay	21RR37	RR2Y	2.1	MR	Ac,Ex	52.9	8.3	0	794	50.1		58.3	50.2
Hefty	H21R3	RR2Y	2.1	S	I	52.6	8.2	0	789	53.0		55.0	49.8
Wensman	W 3222NR2	RR2Y	2.2	R	Ac	51.9	8.0	0	779	50.4		56.1	49.3
Mustang	M-20823	RR2Y	2.0	R	Ac	51.2	7.9	0	768	52.8		53.7	47.2
Latham	L2183R2	RR2Y	2.1	R	CMB	51.1	8.3	0	767	50.9		55.6	46.7
Latham	L2086R2	RR2Y	2.0	R	SS+	50.7	7.9	0	761	45.6		55.6	50.8
Channel	1901R2	RR2Y	1.9	R	Ac,PV	50.6	7.9	0	759	50.9		56.1	44.9
Prairie Brand	PB-2143R2	RR2Y	2.0	R	CMB	50.3	8.1	0	755	52.1		58.9	40.0
Trelay	19RR59	RR2Y	1.9	R	Ac,Ex	50.1	8.0	0	752	53.2		51.6	45.5
Viking	1908CNRR	RR	1.9	R	None	50.0	8.1	0	750	44.3		52.4	53.2
Latham	L2148R2	RR2Y	2.1	R	CMB	49.7	8.4	0	746	52.6		57.8	38.8
Kruger	K2-2102	RR2Y	2.1	R	Ac,PV	49.6	8.0	0	744	45.2		51.3	52.4
Anderson	162R2Y CK	RR2Y	1.6	R	None	51.3	7.9	0	770	49.6		52.9	51.5
<b>Site Averages =</b>			<b>49.3</b>	<b>8.1</b>	<b>0</b>	<b>739</b>	<b>47.4</b>					<b>53.9</b>	<b>46.4</b>
LSD (0.10) =						4.9	0.3	ns		7.4		4.8	6.2

Site Lost to Severe Hail Damage

## Soybean Field Notes: Minnesota South

### Soybean Stats:

Yield Range: 45.3-61.7 bu. per acre

Yield Average: 53.8 bu. per acre

Top \$ Per Acre: \$925.50

**Easton**—Planting conditions were quite good here, allowing for even plant emergence, as was recorded when stand counts were taken in June. Tom and Jeff Warmka, F.I.R.S.T. farmers, indicated that monthly rainfall totals dropped to about 1" in each July and August, causing these soybeans to just miss a chance for record yields. Even so, the lack of pest pressure allowed plants to use every bit of subsoil moisture to fill pods. Physiological maturity was probably 10 days ahead of normal due mainly to the dry, hot conditions through harvest. Average yields here were 50.3 bu. per acre in the early-season test with a slight increase to 51.1 bu. per acre in the full-season test.

**Jeffers**—Rick Quade, F.I.R.S.T. farmer for this test plot, had fields experience a wetter-than-normal May followed by progressively drier months through harvest. If it were not for a few tenths of rain occasionally, this crop would have been in trouble. Plants looked healthy at harvest, and no aphid or other pest pressure affected yields. Harvest maturity was reached quickly, as was evidenced by low grain moisture. A few plots had 5–10 shattered pods prior to harvest. Average yields here were 44.9 bu. per acre in the early-season test and 44.5 bu. per acre in the full-season test.

**Kasson**—Planting conditions were excellent on Brian Herbst's

Kasson test site. Rainfall was plentiful in May and just enough rain was received the rest of the summer. Herbst received a bit more rain in July and August than other areas in Minnesota. No pest infestations reached economic threshold, and his crop stayed healthy through maturity. This site produced averages of 57.9 bu. per acre in the early-season test and 55.3 bu. per acre in the full-season test.

**New Richland**—Even though I had trouble with soil clods and root balls while planting, this site emerged very well and never looked back. Plant health was excellent all year and no pests got in the way of yield. Rainfall in May was excessive but July and August were very dry. A few small rains of 0.2" or 0.3" at key times were enough to push these yields up to the averages you see in the report. This was a beautiful-looking site to harvest.



This picture was taken on F.I.R.S.T. farmer Rick Quade's test plot in Jeffers, Minn. Harvest for the Minnesota South region soybeans came early (from Sept. 26 through Sept. 30) and was not affected as much as some other areas by drought. This is reflected in the yields shown on the reports.



Photos courtesy of Mark Quenna

With rainfall higher than much of the country, Minnesota yields averaged in the low 50s and test winners above 60 bu. per acre.

# F.I.R.S.T. Minnesota South Soybean Results



Mark Querna, F.I.R.S.T. Manager

## Site Information

Site	Soil Texture	Tillage	Row Width (in)	Planting Date	Stand	SCN Pop.	August Rain (in)*
Easton	clay loam	conventional	30	5/11	124.1	medium	-2.58
Jeffers	clay loam	conventional	30	5/10	123.5	medium	-1.25
Kasson	silt loam	conventional	30	5/9	126.3	low	-3.02
New Richland	clay loam	conventional	30	5/12	126.0	medium	-3.23

\*Rainfall estimates provided by Telvent. Grower supplied rainfall data in field notes.

## 1.6-2.0 Maturity Group

Top 20 of 48 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Easton	Jeffers	Kasson	New Richland
SOI	2013NRR2Y	RR2Y	2.0	R	None	60.0	7.8	0	900	57.8	52.4	64.4	65.2
Titan Pro	20M1	RR2Y	2.0	R	Am	58.4	7.8	0	876	53.9	49.2	65.3	65.1
Kruger	K2-1901	RR2Y	1.9	R	Ac,PV	56.8	7.8	0	852	51.7	52.5	59.8	63.2
NK Brand	S18-C2 §	RR2Y	1.8	R	CMB	56.5	7.8	0	848	56.9	47.3	61.2	60.5
Latham	L1985R2	RR2Y	1.9	R	CMB	56.4	7.7	0	846	55.4	52.8	57.2	60.3
Renk	RS172NR2	RR2Y	1.7	R	None	56.3	7.8	0	845	55.0	46.8	59.6	63.8
Latham	L2086R2	RR2Y	2.0	R	SS+	55.6	7.7	0	834	58.5	50.4	55.6	58.0
Hefty	H20R3	RR2Y	2.0	MR	I	55.3	8.0	0	830	53.0	42.4	64.1	61.7
Prairie Brand	PB-2042R2	RR2Y	2.0	R	CMB	55.2	7.9	0	828	50.3	46.0	62.4	62.0
Mustang	M-20823	RR2Y	2.0	R	Ac	55.0	7.8	0	825	54.3	47.5	56.1	62.1
Jung	1201RR2	RR2Y	2.0	R	Ac,O	54.6	7.8	0	819	52.7	44.0	61.8	59.8
Renk	RS183NR2	RR2Y	1.8	R	None	54.4	7.7	0	816	57.1	47.0	55.4	58.0
Wensman	W 3190NR2	RR2Y	1.9	R	Ac	54.2	7.8	0	813	49.5	45.6	59.6	62.2
Mustang	M-19723	RR2Y	1.9	R	Ac	53.7	7.8	0	806	50.0	44.8	60.5	59.4
Trelay	20RR43	RR2Y	2.0	R	Ac,Ex	53.5	7.8	0	803	50.8	43.0	61.0	59.1
Kruger	K2-1602	RR2Y	1.6	R	Ac,PV	53.4	7.8	0	801	52.1	42.4	57.8	61.1
Dairyland	DSR-1808R2Y	RR2Y	1.8	R	CMB	53.3	7.7	0	800	51.0	47.4	52.9	61.7
Pfister	17R27	RR2Y	1.7	R	CMB	53.2	7.8	0	798	53.9	44.3	55.1	59.4
Anderson	162R2Y	RR2Y	1.6	R	None	53.1	7.8	0	797	50.3	47.2	57.7	57.3
Trelay	19RR59	RR2Y	1.9	R	Ac,Ex	53.1	8.0	0	797	51.4	44.9	57.8	58.2
Viking	2000R2N CK	RR2Y	2.0	R	Ac	58.7	7.7	0	881	56.5	52.6	59.4	66.4
<b>Site Averages =</b>			<b>53.0</b>	<b>7.8</b>	<b>0</b>	<b>795</b>	<b>50.3</b>	<b>44.9</b>	<b>57.9</b>	<b>58.8</b>			
LSD (0.10) =						3.3	0.2	ns		6.1	2.9	5.0	5.4

## 2.1-2.3 Maturity Group

Top 20 of 54 tested

Company/Brand	Product/Brand	Technology	Maturity	SCN Resistance	Seed Treatment	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Easton	Jeffers	Kasson	New Richland
Hefty	H21R3	RR2Y	2.1	S	I	61.7	8.1	0	926	60.0	51.9	60.0	74.9
Prairie Brand	PB-2230R2	RR2Y	2.2	S	CMB	60.7	8.0	0	911	56.3	48.1	63.3	75.2
Latham	L2253R2	RR2Y	2.2	S	CMB	60.1	8.0	0	902	57.4	49.3	60.3	73.2
Kruger	K2-2301	RR2Y	2.3	S	Ac,PV	60.0	8.4	0	900	54.5	51.3	60.5	73.5
Titan Pro	23M9	RR2Y	2.3	S	CMB	60.0	8.5	0	900	51.4	49.7	61.9	77.0
Viking	2300R2	RR2Y	2.3	S	Ac	58.9	8.3	0	884	53.6	49.1	60.2	72.7
Stine	24RB00 §	RR2Y	2.4	MR	CMB	58.7	7.8	0	881	55.8	51.8	58.9	68.4
Hefty	H23Y10	RR2Y	2.3	S	I	57.9	8.2	0	869	49.6	49.8	59.2	73.1
Prairie Brand	PB-2419RR2	RR2Y	2.3	S	CMB	57.7	8.9	0	866	55.3	50.6	53.6	71.4
Renk	RS213NR2	RR2Y	2.1	R	None	57.0	8.0	0	855	53.8	45.8	58.5	69.7
NorthStar	NS 2138NR2	RR2Y	2.1	R	Ac	56.1	7.7	0	842	51.7	50.1	57.5	64.9
Trelay	21RR37	RR2Y	2.1	MR	Ac,Ex	56.0	8.1	0	840	59.4	42.2	56.1	66.3
Prairie Brand	PB-2366R2	RR2Y	2.2	R	CMB	55.8	8.0	0	837	52.9	45.5	57.2	67.7
Asgrow	AG2232 §	RR2Y	2.2	R	Ac,PV	55.8	8.5	0	837	51.8	42.1	60.2	68.9
Hefty	H22Y12	RR2Y	2.2	MR	I	55.4	7.9	0	831	49.5	49.9	54.5	67.6
LG Seeds	C2050R2	RR2Y	2.1	R	Ac	55.4	7.8	0	831	51.5	46.8	57.2	66.0
Prairie Brand	PB-2143R2	RR2Y	2.0	R	CMB	55.2	7.9	0	828	50.9	49.4	53.9	66.7
Latham	L2385R2	RR2Y	2.3	R	CMB	55.0	7.9	0	825	50.9	43.9	57.9	67.2
Kruger	K2-2303	RR2Y	2.3	R	Ac,PV	55.0	9.0	0	825	48.2	49.4	52.5	70.0
Channel	2105R2	RR2Y	2.1	MR	Ac,PV	54.8	8.5	0	822	48.9	45.6	59.2	65.4
Viking	2000R2N CK	RR2Y	2.0	R	Ac	57.7	7.8	0	866	54.3	54.1	55.2	67.1
<b>Site Averages =</b>			<b>54.5</b>	<b>8.1</b>	<b>0</b>	<b>817</b>	<b>51.1</b>	<b>44.5</b>	<b>55.3</b>	<b>67.0</b>			
LSD (0.10) =						4.1	0.4	ns		5.9	5.2	5.6	4.4



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