MERSCHMAN SEEDS®

2011 TECH PORT RESULTS

REDEFINING SERVICE. QUALITY. INNOVATION.

SKIP LONG
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This past year we expanded our testing to include not only the Iowa City, Iowa airport site, but also two locations near Grand Chain, IL just southeast of Cape Girardeau, MO. We had over 1000 farmers and Merschman Seeds' dealers tour our testing & research sites that featured not only traits and genetics but also several agronomic studies as well. Despite some very challenging weather conditions that included excessive rainfall early, high temperatures midseason, a dry year end and an early frost at Iowa City, we had outstanding performance at all locations.

In this year's report are soybean variety and hybrid performance results, including computer analysis of soybean university data from multiple states and locations. We have also included disease and SCN results from both Southern Illinois University and the Illinois Soybean Association funded Varietal Information Program for Soybeans (VIPS) on Merschman Soybeans. In addition, we have results from population studies, seed treatment and trait comparisons, earworm protection tests and planting depth studies all designed to improve your yields with Merschman Seeds' products.

I would like to thank our farmer cooperators for hosting the test locations: Larry King from Grand Chain, IL and Regennitter Farms at Iowa City, IA; without their help we could not have had these plots. Please contact me if you have any questions on the data and thanks for planting Merschman Seeds.

Skip Long
Product Manager

TECH PORT NORTH SOYBEAN SEED TREATMENT TRIALS

IOWA CITY, IOWA

Side by side treated versus untreated average of four varieties with four replications.
(Mohawk 1128RR2Y, Kennedy 1036RR2Y, Truman 938LL, & Miami 949LL)

Bonus Coated+	**77.80 BPA**
Untreated	**73.45 BPA**
Advantage	**4.35 BPA or $50/acre**

** Calculations figured at $11.50 per bushel soybean price.*

TECH PORT NORTH WEED MANAGEMENT SIMULATION

IOWA CITY, IOWA

Clean Soybeans, No Weeds (Dual pre-emerge & 2 timely applications of Ignite® on 4" tall weeds or less in height)	**60.62 BPA**	**$697.13/A**
Weed Pressure Escapes & Spraying Too Late (Dual pre-emerge & 1 out of label application of Ignite® on 10" tall weeds or less in height)	**42.30 BPA**	**$486.45/A**
Heavy Weed Pressure (Dual pre-emerge with no post applications to simulate weed resistance)	**8.46 BPA**	**$97.29/A**

** Calculations figured at $11.50 per bushel soybean price.*

TECH PORT NORTH 2 IS BETTER THAN 1 YIELD TRIAL

IOWA CITY, IOWA

2 v. 1 Study across a 2.4, 3.0, 3.4, & 4.5 maturity range. We tested our latest 2012 new Genuity® Roundup Ready 2 Yield® releases against our best 2011 Roundup Ready® varieties in each maturity with an average of four replications.

Genuity® Roundup Ready 2 Yield®	**80.94 BPA**
Roundup Ready®	**74.50 BPA**
Advantage	**6.44 BPA or $74/Acre**

** Calculations figured at $11.50 per bushel soybean price.*

2011 NORTHERN SOYBEAN POPULATION AND ROW WIDTH STUDY

The result of the population study indicated that soybeans are not population sensitive when planting high quality Merschman Bonus Coated+™ Soybeans. Yields were fairly consistent at all populations. Merschman Seeds recommends 130,000 in 30” rows and 143,750 in 15” rows as your starting population to maximize yield.

TECH PORT NORTH | IOWA CITY, IA

BRAND	ROW WIDTH	POPULATION	BPA
Merschman Apache 1124RR2Y	30”	40,521	93.60
Merschman Apache 1124RR2Y	30”	80,000	85.22
Merschman Apache 1124RR2Y	30”	128,000	89.52
Merschman Apache 1124RR2Y	30”	145,922	83.92
Merschman Apache 1124RR2Y	30”	163,089	86.91
AVERAGE YIELD		**87.83 BPA**	

BRAND	ROW WIDTH	POPULATION	BPA
Merschman Apache 1124RR2Y	15”	90,000	82.62
Merschman Apache 1124RR2Y	15”	110,000	79.63
Merschman Apache 1124RR2Y	15”	128,000	77.10
Merschman Apache 1124RR2Y	15”	130,000	77.10
Merschman Apache 1124RR2Y	15”	160,000	78.41
Merschman Apache 1124RR2Y	15”	200,000	74.21
AVERAGE YIELD		**78.17 BPA**	

2011 MERSCHMAN SEEDS SOYBEAN SHOW PLOT

Iowa City, Iowa
All studies were planted on May 4, 2011

We applied Dual 6E pre-emergence and post applied either Roundup WeatherMax® or Ignite® on the appropriate technology at labeled rates. 150 lbs. of 24-6-12 dry fertilizer was applied pre-emergence. 30" rows.

LIBERTY LINK®
IGNITE® HERBICIDE TOLERANT

LIBERTYLINK® SOYBEANS

GROUP II

RANK	BRAND	YIELD BPA
1	Merschman Sioux 1126LL	79.99
2	Merschman Mohave 1128LL	71.57
3	Merschman Comanche 1024LL	68.61
4	Merschman Munsee 1220LL	66.48
LIBERTYLINK® AVERAGE OF GROUP II YIELD		**71.66**

GROUP III

RANK	BRAND	YIELD BPA
1	Merschman McKinley 1230LL	74.30
2	Merschman Truman 938LL	65.15
3	Merschman Grant 1236LL	63.73
4	Merschman Madison 1039LL	53.76
5	Merschman Eisenhower 1239LL	53.76
LIBERTYLINK® AVERAGE OF GROUP III YIELD		**62.14**

2011 MERSCHMAN SEEDS SOYBEAN SHOW PLOT

GROUP IV

RANK	BRAND	YIELD BPA
1	Merschman Austin 1142LL	62.24
2	Merschman Tulsa 1245LL	44.91
3	Merschman Toledo 1242LL	40.79
4	Merschman Tampa 1245LL	40.70
5	Merschman Orlando 1246LL	37.94
6	Merschman Miami 949LL	37.81
7	Merschman Macon 1249LL	32.32
8	Merschman Tucson 1249LL	32.24
LIBERTYLINK® AVERAGE OF GROUP IV YIELD		**41.12**

GROUP V

RANK	BRAND	YIELD BPA
1	Merschman Olympus 1051LL	36.49
2	Merschman Denali 1252LL	35.09
3	Merschman Whitney 1154LL	33.61
4	Merschman Hood 1150LL	32.06
LIBERTYLINK® AVERAGE OF GROUP V YIELD		**34.31**

* GROUP IV AND V SOYBEANS RECEIVED A KILLING FROST PRIOR TO MATURITY, THEREFORE REDUCING YIELDS SIGNIFICANTLY.

2011 MERSCHMAN SEEDS SOYBEAN SHOW PLOT

GENUITY® ROUNDUP READY 2 YIELD® & ROUNDUP READY® SOYBEANS

GROUP I & II

RANK	BRAND	YIELD BPA
1	Merschman Apache 1124RR2Y	79.80
2	Merschman Mars 1219RR2Y	74.21
3	Merschman Navaho 1220RR2Y	71.14
4	Merschman Mohegan 1222RR2Y	69.10
5	Merschman Venus 1214RR2Y	67.93
6	Merschman Mohawk 1128RR2Y	64.81
7	Merschman Shawnee 1226RR2Y	63.14
GENUITY® ROUNDUP READY 2 YIELD® AVERAGE OF GROUP I & II YIELD		**70.02**

GROUP III

RANK	BRAND	YIELD BPA
1	Merschman Arthur 1230RR2Y	80.75
2	Merschman Coolidge 1234RR2Y	67.47
3	Merschman Washington 1238RR	63.65
4	Merschman Kennedy 1036RR2Y	44.18
AVERAGE OF GROUP III YIELD		**64.01**

GROUP IV & V

RANK	BRAND	YIELD BPA
1	Merschman Phoenix 1245RR2Y	42.94
2	Merschman Memphis 1243RR2Y	41.56
3	Merschman Houston 747RR	41.51
4	Merschman Atlanta 1047RR2Y	38.88
5	Merschman Nashville 749RR	38.88
6	Merschman Everest 1251RR2Y	30.44
AVERAGE OF GROUP IV & V YIELD		**39.04**

*GROUP IV AND V SOYBEANS RECEIVED A KILLING FROST PRIOR TO MATURITY, THEREFORE REDUCING YIELD SIGNIFICANTLY.

2011 SOUTHERN SOYBEAN POPULATION AND ROW WIDTH STUDY

The result of the population study indicated that soybeans are not population sensitive when planting high quality Merschman Bonus Coated+™ Soybeans. Yields were fairly consistent at all populations. Merschman Seeds recommends 130,000 in 30” rows and 143,750 in 15” rows as your starting population to maximize yield.

LARRY KING PLOT | GRAND CHAIN, IL

BRAND	ROW WIDTH	POPULATION	BPA
Merschman Truman 938LL	30”	40,751	48.75
Merschman Truman 938LL	30”	69,723	51.43
Merschman Truman 938LL	30”	129,816	48.69
Merschman Truman 938LL	30”	145,922	41.08
Merschman Truman 938LL	30”	163,089	39.58
AVERAGE YIELD		**45.91 BPA**	

TECH PORT SOUTH | GRAND CHAIN, IL

BRAND	ROW WIDTH	POPULATION	BPA
Merschman Truman 938LL	15”	80,000	36.43
Merschman Truman 938LL	15”	100,000	45.48
Merschman Truman 938LL	15”	120,000	39.42
Merschman Truman 938LL	15”	140,000	37.22
Merschman Truman 938LL	15”	160,000	57.42
AVERAGE YIELD		**43.19 BPA**	

2011 MERSCHMAN SEEDS SOYBEAN SHOW PLOT

Grand Chain, Illinois
Tech Port South

All studies were planted on May 20, 2011. No pre-emergence herbicide was applied. Two applications post applied of either Roundup WeatherMax® or Ignite® on the appropriate technology at labeled rates with a 3rd application spot sprayed. 150 lbs. of 18-46-0 and 150 lbs. of 0-0-60 were applied preplant. 30"rows.

LIBERTY LINK®
IGNITE® HERBICIDE TOLERANT

LIBERTYLINK® SOYBEANS

GROUP III

RANK	BRAND	YIELD BPA
1	Merschman Madison 1039LL	45.48
2	Merschman Grant 1236LL	45.48
3	Merschman Truman 938LL	42.21
4	Merschman Eisenhower 1239LL	36.39
5	Merschman McKinley 1230LL	33.70
LIBERTYLINK® AVERAGE OF GROUP III YIELD		**40.65**

GROUP IV

RANK	BRAND	YIELD BPA
1	Merschman Tampa 1245LL	56.44
2	Merschman Tulsa 1245LL	56.18
3	Merschman Austin 1142LL	51.43
4	Merschman Toledo 1242LL	51.32
5	Merschman Orlando 1246LL	50.64
LIBERTYLINK® AVERAGE OF GROUP IV YIELD		**53.19**

2011 MERSCHMAN SEEDS SOYBEAN SHOW PLOT

GENUITY® ROUNDUP READY 2 YIELD® & ROUNDUP READY® SOYBEANS

GROUP III

RANK	BRAND	YIELD BPA
1	Merschman Coolidge 1234RR2Y	52.69
2	Merschman Washington 1238RR	52.33
3	Merschman Arthur 1230RR2Y	45.77
4	Merschman Kennedy 1036RR2Y	38.68
AVERAGE OF GROUP III YIELD		**47.37**

GROUP IV & V

RANK	BRAND	YIELD BPA
1	Merschman Nashville 749RR	50.87
2	Merschman Houston 747RR	50.84
3	Merschman Atlanta 1047RR2Y	50.78
4	Merschman Memphis 1243RR2Y	47.96
5	Merschman Phoenix 1245RR2Y	46.28
6	Merschman Everest 1251RR2Y	45.25
AVERAGE OF GROUP IV & V YIELD		**48.67**

2011 LARRY KING SHOW PLOT

Larry King Cooperator
Grand Chain, Illinois

All studies were planted on June 1, 2011. No pre-emergence herbicide was applied due to heavy rains. Two applications post applied of either Roundup WeatherMax® or Ignite® on the appropriate technology at labeled rates with a 3rd application spot sprayed on heavy pressure areas. 150 lbs. of 18-46-0 and 150 lbs. of 0-0-60 were applied preplant. 30"rows.

LIBERTY LINK® IGNITE® HERBICIDE TOLERANT

LIBERTYLINK® SOYBEANS

GROUP III

RANK	BRAND	YIELD BPA
1	Merschman Grant 1236LL	55.26
2	Merschman Truman 938LL	52.80
3	Merschman Madison 1039LL	50.91
4	Merschman Eisenhower 1239LL	50.40
5	Merschman McKinley 1230LL	45.08
LIBERTYLINK® AVERAGE OF GROUP III YIELD		**50.89**

GROUP IV

RANK	BRAND	YIELD BPA
1	Merschman Tulsa 1245LL	70.01
2	Merschman Tampa 1245LL	63.22
3	Merschman Tucson 1249LL	57.00
4	Merschman Austin 1142LL	56.56
5	Merschman Macon 1249LL	55.27
6	Merschman Toledo 1242LL	52.30
7	Merschman Miami 949LL	48.81
8	Merschman Orlando 1246LL	48.64
LIBERTYLINK® AVERAGE OF GROUP IV YIELD		**56.48**

2011 LARRY KING SHOW PLOT

GROUP V

RANK	BRAND	YIELD BPA
1	Merschman Olympus 1051LL	56.36
2	Merschman Denali 1252LL	48.84
3	Merschman Hood 1150LL	46.80
LIBERTYLINK® AVERAGE OF GROUP V YIELD		**50.97**

2011 LARRY KING SHOW PLOT

GENUITY® ROUNDUP READY 2 YIELD® & ROUNDUP READY® SOYBEANS

GROUP III

RANK	BRAND	YIELD BPA
1	Merschman Washington 1238RR	51.05
2	Merschman Kennedy 1036RR2Y	50.21
3	Merschman Arthur 1230RR2Y	49.53
4	Merschman Coolidge 1234RR2Y	49.42
AVERAGE OF GROUP III YIELD		**50.05**

GROUP IV

RANK	BRAND	YIELD BPA
1	Merschman Phoenix 1245RR2Y	59.86
2	Merschman Nashville 749RR	57.11
3	Merschman Memphis 1243RR2Y	56.36
4	Merschman Houston 747RR	55.71
5	Merschman Atlanta 1047RR2Y	39.99
AVERAGE OF GROUP IV YIELD		**53.81**

MERSCHMAN SEEDS TOP SOYBEAN UNIVERSITY PERFORMERS SUMMARY

2011 AVERAGES FROM (IA, IL, & MO) UNIVERSITY YIELD TRIALS WIN PERCENTAGE

RANK	BRAND	VARIETIES TESTED	COMPARISONS	WIN %	ADV. YIELD BPA
GROUP II					
1	Merschman Apache 1124RR2Y	176	1017	71.0%	3.12
2	Merschman Navaho 1220RR2Y	167	655	69.5%	2.13
3	Merschman Mohawk 1128RR2Y	337	1694	57.5%	0.53
GROUP III					
1	Merschman Eisenhower 1239LL	44	132	64.4%	2.11
2	Merschman Washington 1238RR	374	2254	64.4%	1.93
3	Merschman Coolidge 1234RR2Y	341	1709	62.8%	1.69
4	Merschman Kennedy 1036RR2Y	341	1709	62.1%	1.61
5	Merschman Arthur 1230RR2Y	283	1285	59.8%	1.34
6	Merschman McKinley 1230LL	722	595	6.8%	1.62
GROUP IV					
1	Merschman Memphis 1243RR2Y	414	2055	72.7%	3.28
2	Merschman Orlando 1246LL	237	880	72.4%	3.69
3	Merschman Atlanta 1047RR2Y	378	1607	66.1%	2.79
4	Merschman Tulsa1245LL	237	880	62.4%	2.02
5	Merschman Phoenix 1245RR2Y	432	2245	61.9%	1.52
6	Merschman Tucson 1249LL	342	1326	60.6%	1.45
7	Merschman Tampa 1245LL	374	1873	55.3%	-0.29

2011 IOWA STATE UNIVERSITY — SOYBEAN YIELD TRIAL WIN PERCENTAGE

RANK	BRAND	VARIETIES TESTED	COMPARISONS	WIN %	ADV. YIELD BPA
GROUP I					
1	Merschman Venus 1214RR2Y	45	280	64.3%	1.31
2	Merschman Mars 1219RR2Y	45	280	63.9%	1.44
GROUP II					
1	Merschman Navaho 1220RR2Y	45	280	89.3%	4.15
2	Merschman Mohawk 1128RR2Y	43	287	76.0%	2.52
3	Merschman Apache 1124RR2Y	65	642	61.8%	1.33
4	Merschman Shawnee 1226RR2Y	60	408	51.7%	0.62
GROUP III					
1	Merschman Washington 1238RR	38	229	69.3%	1.94
2	Merschman Coolidge 1234RR2Y	38	229	67.7%	1.73
3	Merschman Arthur 1230RR2Y	41	253	59.7%	0.68
4	Merschman Kennedy 1036RR2Y	38	229	56.8%	1.09

2011 UNIVERSITY OF ILLINOIS — SOYBEAN YIELD TRIAL WIN PERCENTAGE

RANK	BRAND	VARIETIES TESTED	COMPARISONS	WIN %	ADV. YIELD BPA
GROUP II					
1	Merschman Apache 1124RR2Y	125	375	86.7%	6.18
2	Merschman Sioux 1126LL	44	69	65.2%	2.97
3	Merschman Comanche 1024LL	23	69	55.1%	2.11
4	Merschman Navaho 1220RR2Y	125	375	54.7%	0.61
5	Merschman Mohawk 1128RR2Y	304	1407	53.7%	0.12
GROUP III					
1	Merschman McKinley 1230LL	37	111	83.8%	5.33
2	Merschman Washington 1238RR	250	1032	72.1%	2.88
3	Merschman Truman 938LL	53	243	71.2%	3.50
4	Merschman Kennedy 1036RR2Y	250	1032	69.3%	2.32
5	Merschman Eisenhower 1239LL	44	132	64.4%	2.11
6	Merschman Coolidge 1234RR2Y	250	1032	64.3%	1.93
7	Merschman Grant 1236LL	53	243	63.0%	2.24
8	Merschman Arthur 1230RR2Y	250	1032	59.9%	1.50
9	Merschman Madison 1039LL	53	243	58.4%	1.80
GROUP IV					
1	Merschman Memphis 1243RR2Y	127	254	87.8%	3.38
2	Merschman Tampa 1245LL	36	72	81.9%	4.29
3	Merschman Tulsa 1245LL	36	72	69.4%	3.19
4	Merschman Phoenix 1245RRY	444	152	60.6%	1.28
5	Merschman Austin 1142LL	36	72	59.7%	1.74
GROUP V					
1	Olympus 1051LL	41	82	81.7%	5.75
2	Whitney 1154LL	41	82	65.9%	2.40

Note: The RR lines were in the RR test and the LL lines were in the conventional test with other LL beans and conventionals.

2011 UNIVERSITY OF MISSOURI — SOYBEAN YIELD TRIAL WIN PERCENTAGE

RANK	BRAND	VARIETIES TESTED	COMPARISONS	WIN %	ADV. YIELD BPA
GROUP III					
1	Merschman Coolidge 1234RR2Y	112	448	56.7%	1.13
2	Merschman Washington 1238RR	147	993	55.2%	0.94
GROUP IV					
1	Merschman Orlando 1246LL	202	808	74.9%	4.00
2	Merschman Atlanta 1047RR2Y	304	1353	72.4%	3.59
3	Merschman Memphis 1243RR2Y	342	1801	70.6%	3.26
4	Merschman Tucson 1249LL	304	1244	62.9%	1.83
5	Merschman Phoenix 1245RR2Y	342	1801	62.2%	1.58
6	Merschman Tulsa 1245LL	202	808	61.8%	1.92
7	Merschman Tampa 1245LL	342	1801	54.2%	-0.47
8	Merschman Houston 747RR	304	1353	52.3%	0.31
GROUP V					
1	Merschman Denali 1252LL	202	808	50.4%	-0.35

2011 SOYBEAN DISEASE AND SCN RATINGS FROM VIPS AND SIU

MERSCHMAN BRAND	HERBICIDE TOLERANCE[1]	SCN UI TYPE 2.5.7[2]	SCN UI TYPE 0[3]	SCN SIU TYPE 2.5.7[4]	SCN SIU TYPE 0[5]	SOYBEAN MOSAIC VIRUS[6]	PRR RESISTANCE GENE[7]	PRR RACE 17 SCREENING[8]	PRR RACE 7 SCREENING[9]	SCLEROTINIA STEM ROT WHITE MOLD[10]	SUDDEN DEATH SYNDROME GREENHOUSE DATA[11]	SIU SDS COMMERICAL VARIETY TEST FIELD DATA[12]
Region 1 Maturity Group 2 Conventional Herbicide Trials												
Munsee 1220LL	LL	NA	NA	NA	NA	S	Rps1a	S	NA	8.47	3.19	S
Comanche 1024LL	LL	NA	NA	NA	NA	S	Rps1k	R	R	8.48	5.53	S
Sioux 1126LL	LL	S	S	S	S	S	Rps1a	S	NA	5.63	6.52	S
Mohave 1128LL	LL	S	S	MS	MS	S	Rps1k	I	NA	6.40	6.47	MR
Region 1 Maturity Group 2 RoundUp Trials												
Venus 1214RR2Y	RR2Y	NA	NA	NA	NA	S	Rps1k	R	R	7.08	5.49	R
Mars1219RR2Y	RR2Y	MS	MR	MS	R	S	Rps1c	R	R	7.01	5.73	R
Navaho 1220RR2Y	RR2Y	S	MR	S	R	S	Rps1c	R	R	6.88	5.46	R
Mohegan 1222RR2Y	RR2Y	MS	MR	S	R	S	Rps1k	R	R	8.95	4.78	S
Apache 1124RR2Y	RR2Y	NA	NA	-	-	S	Rps1c	R	R	4.94	6.83	S
Shawnee 1226RR2Y	RR2Y	S	MR	S	R	S	Rps1k	R	R	8.75	3.48	R
Mohawk 1128RR2Y	RR2Y	S	MR	S	R	S	Rps1c	S	NA	4.58	7.69	S
Region 2 Maturity Group 3 Conventional												
Mckinley 1230LL	LL	NA	NA	NA	NA	S	S	S	NA	NA	6.07	R
Grant 1236LL	LL	S	R	MS	R	R	Rps1k	R	R	NA	6.36	R
Truman 938LL	LL	MS	R	S	R	R	Rps1c	R	R	NA	5.93	R
Madison 1039LL	LL	S	R	MS	R	S	Rps1c	I	NA	NA	5.42	R
Region 2 Maturity Group 3 RoundUp Trials												
Arthur 1230RR2Y	RR2Y	S	R	S	R	S	Rps1c	R	R	NA	4.95	NA
Coolidge 1234RR2Y	RR2Y	S	MR	MS	R	S	Rps1c	R	R	NA	7.92	NA
Kennedy 1036RR2Y	RR2Y	MS	R	MS	R	S	S	S	NA	NA	6.62	ND
Washington 1238RR	RR	S	MR	S	R	S	Rps1k	R	R	NA	7.67	ND

Footnotes for Soybean Characteristics Chart

[1]Herbicide Tolerance
LL = LibertyLink
RR2 = Genuity Roundup Ready 2 Yield
RR = Roundup Ready

[2]SCN Resistance Rating
R = Resistant
MR = Moderately Resistant
MS = Moderately Susceptible
S= Susceptible
ND = Not Determined
NA = Not available

[3]SCN Resistance Rating
R = Resistant
MR = Moderately Resistant
MS = Moderately Susceptible
S= Susceptible
ND= Not Determined
NA = Not available

[4]SCN Resistance Rating
R = Resistant
MR = Moderately Resistant
MS = Moderately Susceptible
S= Susceptible
ND = Not Determined
NA = Not available

[5]SCN Resistance Rating
R = Resistant
MR = Moderately Resistant
MS = Moderately Susceptible
S= Susceptible
ND = Not Determined
NA = Not available

[6]Soybean Mosaic Virus
R = Resistant
M = Moderate
S =Susceptible

MERSCHMAN BRAND	HERBICIDE TOLERANCE[1]	SCN UI TYPE 2.5.7[2]	SCN UI TYPE 0[3]	SCN SIU TYPE 2.5.7[4]	SCN SIU TYPE 0[5]	SOYBEAN MOSAIC VIRUS[6]	PRR RESISTANCE GENE[7]	PRR RACE 17 SCREENING[8]	PRR RACE 7 SCREENING[9]	SCLEROTINIA STEM ROT WHITE MOLD[10]	SUDDEN DEATH SYNDROME GREENHOUSE DATA[11]	SIU SDS COMMERICAL VARIETY TEST FIELD DATA[12]
Region 4 Maturity Group 4 Conventional Herbicide Trials												
Austin 1142LL	LL	S	ND	S	R	S	S	S	NA	NA	4.92	R
Tampa 1245LL	LL	MS	MR	S	R	S	Rps1c	R	R	NA	8.07	MS
Tulsa 1245LL	LL	S	R	S	R	S	Rps1k	R	S	NA	6.60	MS
Orlando 1246LL	LL	NA	NA	NA	NA	S	Rps1k	R	R	NA	6.34	MR
Region 4 Maturity Group 4 RoundUp Trials												
Memphis 1243RR2Y	RR2Y	S	R	MS	R	S	HRps1c	I	NA	NA	5.56	NA
Phoenix 1245RR2Y	RR2Y	S	MR	S	R	S	HRps1c	R	I	NA	6.17	S
Atlanta 1047RR2Y	RR2Y	NA	NA	NA	NA	S	Rps1c	I	NA	NA	5.54	R
Houston 747RR	RR	S	MS	S	R	S	S	S	NA	NA	7.81	S
Nashville 749RR	RR	S	MR	MS	R	S	Rps1a	R	S	NA	7.03	S
Region 5 Maturity Group 4 Conventional Herbicide Trials												
Macon 1249LL	LL	S	MR	S	R	S	Rps1a	R	S	NA	7.50	S
Miami 949LL	LL	S	S	S	MS	R	Rps1k	R	R	NA	9.37	S
Tucson 1249LL	LL	NA	NA	NA	NA	R	Rps1c	R	I	NA	6.72	S
Region 5 Maturity Group 5 Conventional Herbicide Trials												
Hood 1150LL	LL	S	S	S	S	R	S	R	R	NA	8.53	ND
Everest 1251RR2Y	RR2Y	S	MR	S	R	S	Rps1c	S	NA	NA	7.15	ND
Olympus 1051LL	LL	S	S	MS	S	S	Rps1k	I	NA	NA	6.81	ND
Denali 1252LL	LL	MS	S	S	MS	M	Rps3a	S	NA	NA	6.65	ND
Whitney 1154LL	LL	MS	S	S	S	R	Rps1k	R	R	NA	8.17	ND

[7]PRR Resistance Gene

S = Susceptible

Rps1a, Rps1k, Rps3a indicate the presence of specific resistance gene(s)

[8]PRR Resistance Gene

S = Susceptible, 20% or less survival

I = Indeterminate/ segregating, 21-79% survival. This may indicate the variety or is a blend.

R = Resistant, 80% or more survival.

[9]PRR Resistance Gene

S = Susceptible, 20% or less survival

I = Indeterminate/ segregating, 21-79% survival. This may indicate the variety or is a blend.

R = Resistant, 80% or more survival.

[10]White Mold or Sclerotinia Stem Rot (SRR)

Resistance to white mold or sclerotinia stem rot (SRR) was assessed in greenhouse experiments at UIUC for varieties assigned to region 1 using a 1-10 scale.

Lower number = less disease

[11]Sudden Death Syndrome

A normalized scale of 1-9 was used for both the field and greenhouse evaluations. Lower number = less disease.

[12]SIU SDS commercial Variety Test

R = Resistant

MR = Moderately Resistant

MS = Moderately Susceptible

S = Susceptible

ND= Not Determined

NA = Not available

2011 MERSCHMAN SEEDS CORN SHOW PLOT

Tech Port North
Iowa City, IA | All studies were planted on May 3, 2011

Fertilizer applied to all plots 250-0-120-24S with Dual/Lumax for weed control.
Planting depth was 2 ½ inches deep at 37,000 population.
The overall average was 181.12 bu. with 37 hybrids tested.

BRAND	BPA
Merschman M-1015B-15	249.5
Merschman M-1217A-18	229.2
Merschman M-1215D-15	224.4
Merschman M-1214C-18	219.3
Merschman M-1213F-10	217.5
Stine 9806VT3PRO	217.3
Merschman M-1213C-18	209.6
Merschman M-1212K-15	203.6
Merschman M-913D-2	197.1
Merschman M-1299A-13	192.8
Merschman M-1215C	191.8
Merschman M-1113E-15	190.3
Merschman M-1015A	188.7
Merschman M-708D-12	187.0
Merschman M-814B-10	185.2
Stine 9807VT3PRO	186.1
Merschman M-1213G-18	184.6
Merschman M-1211K-15	184.5
Stine M-1012F-10	178.7

2011 MERSCHMAN SEEDS CORN SHOW PLOT

Tech Port South
Grand Chain, IL | All studies were planted on May 19–20, 2011

Fertilizer applied to all plots 250-69-90 with Corvus/Atrazine for weed control.
Planting depth was 2 ½ inches deep at 34,000 population.
The overall average was 152.53 bu. with 28 hybrids tested.

BRAND	BPA
Stine M-1109D-10	199.4
Merschman M-1213F-10	196.5
Merschman M-314A-10	185.6
Merschman M-1113E-15	183.9
Merschman M-314A-10	180.3
Merschman M-814B-10	179.9
Stine M-1109D-10	178.7
Merschman M-708D-12	169.6
Stine 9624VT3	167.7
Stine 9724VT3	164.8
Stine 9806VT3	163.6
Stine 9806VT3	162.5
Merschman M-816A-10	160.1
Stine 9806VT3PRO	160.0
Merschman M-1216C-18	159.6
Merschman M-1015A	157.0
Merschman M-816A-10	154.8
Merschman M-1215D-15	154.3
Stine M-1011G-10	154.0

2011 LARRY KING SHOW PLOT

Larry King Corn Show Plot Top Performers

Grand Chain, IL

Fertilizer applied to all plots 250-69-90 with Corvus/Atrazine for weed control.
Planting depth was 2 ½ inches deep at 34,000 population.
The overall average was 203.42 bu. with 38 hybrids tested.

BRAND	BPA
Merschman M-1212K-15	229.8
Stine 9806VT3PRO	224.8
Merschman M-1215D-15	224.5
Merschman M-1113E-15	217.0
Merschman M-913D-2	214.4
Stine 9806VT3	213.6
Merschman M-1213F-10	213.2
Merschman M-816A-10	211.3
Merschman M-816A-10	210.6
Merschman M-814B-10	210.4
Stine M-1012G-10	206.8
Merschman M-1015B-15	206.6
Stine M-1012F-10	203.8
Stine 9731VT3PRO	203.4
Stine 9806VT3	203.3

TECH PORT SOUTH CORN

2011 Tech Port South High Yield Corn Replicated Test Plot Top Performers

Grand Chain, IL
(Average of 3 replications)

HYBRID	MOISTURE	TEST WEIGHT	BPA
Merschman M-314A-10	21.8	55.2#	185.9
Stine M-1109D-10	17.5	58.4#	181.8
Stine 9731VT3PRO	18.3	55.8#	176.5
Merschman M-1213F-10	17.5	57.1#	175.9
Stine 9806VT3PRO	22.1	54.5#	171.6
Merschman M-1015B-15	17.2	57.1#	161.8

Planted at 34,000 population.
The overall plot average was 175.64 bu.
High was 198.53 bu. and the Low was 154.53 bu.

2011 Tech Port South Corn Planting Depth Study

Grand Chain, IL
Larry King Plot

Hybrid: Merschman M-913D-2		Hybrid: Merschman M-1213F-10	
Depth	BPA	Depth	BPA
½”	127.8	½”	202.8
1”	135.3	1”	213.1
1 ½”	160.0	1 ½”	214.1
2”	158.9	2”	216.5
2 ½”	165.2	2½”	222.6

Averages of the 2 Tests

Depth	Average BPA
½”	165.3
1”	174.2
1 ½”	187.1
2”	187.7
2 ½”	193.9

There was a definite yield increase when planting corn at 2 ½” versus 1 ½” deep. At the 2½” depth you gain an extra set of nodal roots which can enhance water and nutrient uptake resulting in higher yield potential. It also improves standability. The yield advantage for planting 2 ½” deep over 1 ½” deep was 6.8 BPA in 2011.

2011 Tech Port North Corn Earworm Protection Value Test

In 4 side by side tests using the same corn isolines (genetics) in three different maturity ranges comparing YieldGard VT Triple® and Agrisure® 3000GT hybrids (no protection from earworms) to Genuity® VT Triple PRO™ and Agrisure® Viptera 3111 hybrids (trait protection from earworms) resulted in a 8.6 bushel advantage with hybrids that provide earworm protection (Genuity® VT Triple PRO™ and Agrisure® Viptera 3111). Data suggests that it only takes 3 damaged kernels per ear from earworm feeding to equal one bushel of loss per acre.

2011 POPULATION STUDIES

2011 Tech Port North Corn Population Study

Iowa City, IA

Population	Hybrid	Moisture	Test Weight	BPA	Hybrid	Moisture	Test Weight	BPA
28,000	Stine 9417VT3	18.1	56.5#	158.9	Merschman M-1213F-10	22.0	54.9#	212.0
30,000	Stine 9417VT3	16.2	58.4#	168.9	Merschman M-1213F-10	21.4	56.1#	198.0
32,000	Stine 9417VT3	15.9	58.4#	179.9	Merschman M-1213F-10	18.9	56.7#	182.0
35,000	Stine 9417VT3	16.4	57.1#	211.1	Merschman M-1213F-10	23.4	55.1#	222.0
37,000	Stine 9417VT3	17.5	56.5#	214.0	Merschman M-1213F-10	23.7	54.3#	242.0
40,000	Stine 9417VT3	17.8	56.6#	215.3	Merschman M-1213F-10	23.7	53.3#	240.0

The above data shows, as well as last year's data, that we need to be increasing our corn populations. The advantage of increasing corn populations from 28,000 to 35,000 was 31.1 BPA additional yield based on average of the 2 hybrids tested.

2011 Tech Port South Corn Population Study

Grand Chain, IL

Hybrid used was Merschman M-1213F-10

Population	BPA
28,000	129.1
30,000	136.2
32,000	139.5

There was a 10.4 bu. yield advantage at 32,000 versus 28,000 population.

Larry King Corn Population Study

Hybrid used was an experimental 111 Day Refuge in a Bag (RIB) Complete hybrid.

Population	BPA
28,000	198.8
30,000	212.8
32,000	218.0
34,000	215.0
36,000	214.5
38,000	210.6

There was a 19.2 bu. yield advantage at 32,000 versus 28,000 population.

The average of the 2 tests improved yield 14.8 bu. when increasing planting population from 28,000 to 32,000 in 2011.

2011 SEED TREATMENT TRIALS

2011 Tech Port South Corn Poncho® 500 vs. Poncho® 500/VOTiVO™ Side by Side Trials

Grand Chain, IL

Hybrid	Treatment	BPA	Advantage
Stine M-1109D-10	Poncho®500	178.7	
Stine M-1109D-10	Poncho®500/VOTiVO™	199.4	+20.70
Stine 9724VT3	Poncho®500	164.8	
Stine 9724VT3	Poncho®500/VOTiVO™	151.9	-12.90
Stine M-1011G-10	Poncho®500	122.0	
Stine M-1011G-10	Poncho®500/VOTiVO™	153.9	+31.90
Stine M-1012G-10	Poncho®500	109.8	
Stine M-1012G-10	Poncho®500/VOTiVO™	113.2	+3.40
Stine M-1012F-10	Poncho®500	121.6	
Stine M-1012F-10	Poncho®500/VOTiVO™	122.7	+1.10
Merschman M-314A-10	Poncho®500	185.6	
Merschman M-314A-10	Poncho®500/VOTiVO™	180.3	-5.30
Stine 9806VT3	Poncho®500	162.5	
Stine 9806VT3	Poncho®500/VOTiVO™	163.6	+1.10
Merschman M-816A-10	Poncho®500	154.8	
Merschman M-816A-10	Poncho®500/VOTiVO™	160.1	+5.30

The overall average of 8 tests showed an advantage from VOTiVO™ nematode protection of 5.66 BPA.

Larry King Corn Poncho® 500 vs. Poncho® 500/VOTiVO™ Side by Side Trials

Grand Chain, IL

Stine M-1109D-10	Poncho®500	124.2	
Stine M-1109D-10	Poncho®500/VOTiVO™	148.1	+23.90
Merschman M-314A-10	Poncho®500	198.9	
Merschman M-314A-10	Poncho®500/VOTiVO™	188.4	-10.50
Stine 9806VT3	Poncho®500	203.3	
Stine 9806VT3	Poncho®500/VOTiVO™	213.6	+10.30
Merschman M-816A-10	Poncho®500	211.3	
Merschman M-816A-10	Poncho®500/VOTiVO™	210.6	- 0.70

The overall average of 4 tests showed an advantage from VOTiVO™ nematode protection of 5.75 BPA.

In a total of 12 side by side tests where there was corn nematode pressure, resulted in a 5.71 bu. advantage in favor of Poncho®500/VOTiVO™ over the straight Poncho®500.

Economic Benefit Analysis to VOTiVO™

Poncho®500/VOTiVO™ Yield Advantage	5.71 bu.
Corn Price	x $5.00
Advantage per acre	$28.55
2.5 acres per bag of seed	
Advantage of Poncho®500/VOTiVO™ equivalent to a per bag of seed value	$71.38

MERSCHMAN SEEDS, INC.

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