

Field Experiment History

Comparison of Monsanto Bt and Non Bt Hybrids.

Location	Cooperators	Soil Type	Previous Crop	Row Width (in)	Planting Date	Harvest Dates	Ave. Final Stand (plants/A)	Tillage Operations	--Soil Test--			actual (lb/a)	--Nitrogen Fertilizer--		Weed Control	Insecticides
									pH	P	K		form	time		
Arlington	S.Kraak	Plano	Soybean	30	3-May	16-Oct	27126	Chisel	6.7	70	164	150	46-0-0	preplant	Harness 2.5 pt/A	None
	J. Quimby	Silt Loam						Field Cultivator Soil Finisher								
Chippewa Falls	J. Clark	Sattre Silt Loam	Soybean	30	29-Apr	24-Sept	30294	Field Cultivator	6.8	26	88	150 9	28-0-0 6-24-24	preplant planting	Harness 1.6 pt/A Hornet 3.0 oz/A cultivate	None
Fond du Lac	E. Montsma M. Rankin	Virgil Silt Loam	Soybean	30	3-May	22-Oct	28908	Field Cultivator	6.7	31	77	9 120	6-24-24 28-0-0	planting preemerge	Basis 0.33 oz/A Lumax 5.0 pt/A cultivate	
Galesville	K. Congdon	Downs	Soybean	30	28-Apr	20-Oct	28710	V-ripper	6.2	36	136	160	46-0-0	preplant	Dual II 2.25 pt/A	None
	J. Zander	Silt Loam						Field Cultivator								
Hancock Irrigated	J. Breuer C. Kostichka	Plainfield Sand	Soybean	30	24-Apr	15-Oct	27461	Moldboard Plow Disk	7.1	109	93	9 204	6-24-24 34-0-0	planting post	Aatrex 4L 0.75 lb/A Lasso 2.0 qt/A Callisto 3.0 oz/A	None
Janesville	B. Jaynes J. Stute	Plano Silt Loam	Soybean	30	25-Apr	21-Oct	28314	Chisel Plow Field Cultivator	6.9	59	174	100 9	28-0-0 6-24-24	preplant planting	Dual II 1.8 pt/A Hornet 4.5 oz/A Callisto 3.0 oz/A Steadfast 0.75 oz/A cultivate	None
Lancaster	T. Wood	Fayette Silt Loam	Soybean	30	28-Apr	7-Oct	27522	Soil Finisher	7.1	48	138	140 9	46-0-0 6-24-24	preplant planting	Aatrex 4L 1.0 qt/A Harness 1.0 qt/A Accent 0.33 oz/A Northstar 4.0 oz/A cultivate	None
Marshfield	M. Bertram	Withee	Alfalfa	30	1-May	8-Oct	26690	Chisel Plow	6.2	70	190	9 45	6-24-24 28-0-0	planting post	Harness 1.8 pt/A Hornet 2.4 oz/A	Force 4.4 lbs/A
	T. Drendel	Silt Loam						Disk Field Cultivator								
Seymour	R. Vanden Heuvel Z. Miller	Clay Loam	Corn	30	2-May	24-Oct	29700	Chisel Plow Soil Finisher	7.1	22	119	9 9000 gal/A	6-24-24 Manure	planting post	Accent 0.67 oz/A Atrazine 0.5 lb/A Callisto 3.0 oz/A cultivate	Force 4.4 lbs/A
Spoooner Dryland	P. Holman Y. Berger	Cress Sandy Loam	Alfalfa	30	8-May	23-Sept	29304	Moldboard Plow Disk	6.5	100	121	22 161	13-16-18-8s 46-0-0	planting post	Dual II Mag 1.0 pt/A Hornet 4.0 oz/A	None
Spoooner Irrigated	P. Holman Y. Berger	Cress Sandy Loam	Alfalfa	30	8-May	21-Oct	29106	Moldboard Plow Disk	6.5	100	121	22 161	13-16-18-8s 46-0-0	planting post	Dual II Mag 1.0 pt/A Hornet 4.0 oz/A	None
Spoooner Silt Loam	P. Holman Y. Berger	Miami Silt Loam	Soybean	30	16-May	14-Oct	29502	Moldboard Plow Disk	7.0	23	56	22 120	13-16-18-8s 46-0-0	planting post	Dual II Mag 1.0 pt/A Hornet 4.0 oz/A Accent 0.67 oz/A	None
Valders	T. & B. Maney	Kewaunee Clay Loam	Corn	30	2-May	24-Oct	27284	Chisel Plow Field Cultivator	6.9	91	186	9 7500 gal/A 20 Ton	6-24-24 Manure Manure	planting preplant	Dual II Mag 1.0 pt/A Accent Gold 2.0 oz/A Banvel 2.0 oz/A cultivate	Force 4.4 lbs/A

Results: Tables C-5, C-6, C-7, and C-8.

**Table C-5. Comparison of Monsanto Bt and Non Bt Hybrids.
Southern Zone 2003.**

Zone	Location	Hybrid	Yield bu/A	Moisture %	Test Weight lbs/bu	Lodging %	Grower return \$/A
S		DKC5333RR	207	21.0	56	0	392
S		DKC5332YGCB	224	22.3	56	0	419
S		DKC5701	214	22.9	54	0	399
S		DKC5878YGCB	223	24.7	53	1	407
S		DKC6017RR	204	25.9	55	2	367
S		DKC6019YGRR	209	25.1	55	1	380
S	Arlington		223	27.3	52	1	396
S	Janesville		219	20.1	58	1	419
S	Lancaster		198	23.5	54	0	367
S	Arlington	DKC5333RR	222	25.0	53	1	405
S	Arlington	DKC5332YGCB	244	25.8	53	0	441
S	Arlington	DKC5701	224	26.8	51	0	399
S	Arlington	DKC5878YGCB	221	27.4	51	0	392
S	Arlington	DKC6017RR	212	30.1	53	3	365
S	Arlington	DKC6019YGRR	214	28.6	53	2	375
S	Janesville	DKC5333RR	206	17.8	60	0	405
S	Janesville	DKC5332YGCB	222	18.9	59	1	430
S	Janesville	DKC5701	215	20.0	57	0	412
S	Janesville	DKC5878YGCB	228	21.1	57	2	432
S	Janesville	DKC6017RR	213	21.9	58	1	401
S	Janesville	DKC6019YGRR	228	21.2	59	0	433
S	Lancaster	DKC5333RR	191	20.2	56	0	366
S	Lancaster	DKC5332YGCB	206	22.1	55	0	387
S	Lancaster	DKC5701	205	21.7	52	0	386
S	Lancaster	DKC5878YGCB	219	25.7	52	0	396
S	Lancaster	DKC6017RR	185	25.7	54	2	335
S	Lancaster	DKC6019YGRR	185	25.7	55	0	334
S	Mean		213	23.6	55	1	394
Probability(%)							
	Location (L)		1.3	0.0	0.0	75.1	0.6
	Hybrid (H)		0.0	0.0	0.0	19.1	0.0
	H x L		1.8	7.9	1.0	75.2	1.1
LSD (0.10)							
	Location (L)		10	0.7	0	NS	16
	Hybrid (H)		8	0.8	0	NS	14
	H x L		14	1.3	1	NS	25
CV(%)							
			5	4	1	NS	4

**Table C-6. Comparison of Monsanto Bt and Non Bt Hybrids.
South Central Zone 2003.**

Zone	Location	Hybrid	Yield bu/A	Moisture %	Test	Lodging %	Grower
					Weight lbs/bu		return \$/A
SC		DK440	194	19.0	55	0	377
SC		DKC4446RRYGCB	209	19.9	55	0	402
SC		DKC4628RR	209	19.8	57	0	402
SC		DKC4710RRYGCB	205	20.3	57	0	393
SC		DKC5143	208	21.7	55	1	393
SC		DKC5018YGCB	210	21.8	55	0	395
SC	Fond du lac		183	19.8	56	0	352
SC	Galesville		189	20.9	56	1	360
SC	Hancock		247	20.7	55	0	471
SC	Fond du lac	DK440	178	18.0	55	0	348
SC	Fond du lac	DKC4446RRYGCB	189	19.1	55	0	367
SC	Fond du lac	DKC4628RR	186	19.0	57	0	361
SC	Fond du lac	DKC4710RRYGCB	185	19.9	57	0	355
SC	Fond du lac	DKC5143	183	21.2	55	1	347
SC	Fond du lac	DKC5018YGCB	176	21.5	55	0	334
SC	Galesville	DK440	174	20.2	55	1	333
SC	Galesville	DKC4446RRYGCB	200	20.5	55	0	382
SC	Galesville	DKC4628RR	195	20.1	57	0	374
SC	Galesville	DKC4710RRYGCB	182	20.8	56	1	347
SC	Galesville	DKC5143	193	22.2	56	2	362
SC	Galesville	DKC5018YGCB	189	21.5	55	0	357
SC	Hancock	DK440	232	18.9	56	0	451
SC	Hancock	DKC4446RRYGCB	253	20.1	55	0	486
SC	Hancock	DKC4628RR	245	20.3	56	0	470
SC	Hancock	DKC4710RRYGCB	242	20.4	57	0	462
SC	Hancock	DKC5143	249	21.7	55	0	469
SC	Hancock	DKC5018YGCB	265	22.5	54	0	496
SC	Mean		206	20.4	56	0	394
Probability(%)							
	Location (L)		0.1	0.1	50.5	30.3	0.1
	Hybrid (H)		0.0	0.0	0.0	2.6	0.1
	H x L		2.0	3.2	2.5	73.8	1.9
LSD (0.10)							
	Location (L)		12	0.2	NS	NS	26
	Hybrid (H)		6	0.4	0	1	10
	H x L		10	0.7	1	NS	18
CV(%)							
			4	2	1	179	3

**Table C-7. Comparison of Monsanto Bt and Non Bt Hybrids.
North Central Zone 2003.**

Zone	Location	Hybrid	Yield bu/A	Moisture %	Test		Grower return \$/A
					Weight lbs/bu	Lodging %	
NC		DK440	161	22.5	51	1	300
NC		DKC4446RRYGCB	168	23.4	51	0	311
NC		DKC4628RR	170	24.1	52	4	313
NC		DKC4710RRYGCB	173	23.8	53	2	318
NC		DKC5143	177	25.4	52	1	321
NC		DKC5018YGCB	173	25.5	52	0	313
NC	Chippewa Falls		120	17.0	51	2	238
NC	Marshfield		143	33.5	51	0	236
NC	Seymour		225	23.1	52	0	418
NC	Valders		193	22.8	54	3	359
NC	Chippewa Falls	DK440	113	15.4	50	3	228
NC	Chippewa Falls	DKC4446RRYGCB	118	16.5	50	0	235
NC	Chippewa Falls	DKC4628RR	123	16.5	52	3	244
NC	Chippewa Falls	DKC4710RRYGCB	121	16.1	53	1	241
NC	Chippewa Falls	DKC5143	126	18.6	52	1	245
NC	Chippewa Falls	DKC5018YGCB	120	18.6	52	0	234
NC	Marshfield	DK440	142	30.8	50	0	241
NC	Marshfield	DKC4446RRYGCB	140	32.5	50	0	235
NC	Marshfield	DKC4628RR	138	33.9	51	0	227
NC	Marshfield	DKC4710RRYGCB	151	32.9	52	0	250
NC	Marshfield	DKC5143	149	35.1	51	0	240
NC	Marshfield	DKC5018YGCB	140	36.0	51	0	224
NC	Seymour	DK440	212	22.4	51	0	397
NC	Seymour	DKC4446RRYGCB	230	23.0	52	0	429
NC	Seymour	DKC4628RR	219	22.9	52	0	409
NC	Seymour	DKC4710RRYGCB	228	22.7	54	0	425
NC	Seymour	DKC5143	226	23.9	52	1	417
NC	Seymour	DKC5018YGCB	233	23.9	52	1	430
NC	Valders	DK440	176	21.3	54	0	333
NC	Valders	DKC4446RRYGCB	183	21.6	54	0	346
NC	Valders	DKC4628RR	200	22.9	54	12	373
NC	Valders	DKC4710RRYGCB	191	23.4	55	5	354
NC	Valders	DKC5143	207	23.8	54	1	382
NC	Valders	DKC5018YGCB	198	23.6	54	1	366
NC	Mean		170	24.1	52	1	313
Probability(%)							
	Location (L)		0.0	0.0	0.0	0.1	0.0
	Hybrid (H)		0.1	0.0	0.0	0.0	5.7
	H x L		10.6	2.9	0.4	0.0	14.1
LSD (0.10)							
	Location (L)		10	1.0	0	1	18
	Hybrid (H)		6	0.5	0	1	11
	H x L		NS	1.1	1	2	NS
CV(%)							
			5	3	1	118	5

**Table C-8. Comparison of Monsanto Bt and Non Bt Hybrids.
Northern Zone 2003.**

Zone	Location	Hybrid	Yield	Moisture	Test Weight	Lodging	Grower return
			bu/A	%	lbs/bu	%	\$/A
N		DKC3259RR	100	19.6	56	21	194
N		DK334BtY	101	19.1	56	25	196
N		DKC3550RR	116	19.1	56	24	227
N		DKC3551RRYGCB	107	19.2	56	27	209
N	Spooner-Dryland		58	23.2	54	35	109
N	Spooner-Irrigated		167	17.4	57	33	329
N	Spooner-Silt Loam		92	17.1	56	4	183
N	Spooner-Dryland	DKC3259RR	61	24.5	53	27	112
N	Spooner-Dryland	DK334BtY	58	22.6	54	43	108
N	Spooner-Dryland	DKC3550RR	63	22.1	54	32	118
N	Spooner-Dryland	DKC3551RRYGCB	52	23.5	54	40	96
N	Spooner-Irrigated	DKC3259RR	153	17.6	57	32	301
N	Spooner-Irrigated	DK334BtY	150	17.6	58	28	296
N	Spooner-Irrigated	DKC3550RR	192	17.9	57	31	377
N	Spooner-Irrigated	DKC3551RRYGCB	172	16.6	57	39	341
N	Spooner-Silt Loam	DKC3259RR	85	16.7	56	4	168
N	Spooner-Silt Loam	DK334BtY	94	16.9	57	4	185
N	Spooner-Silt Loam	DKC3550RR	95	17.4	56	8	187
N	Spooner-Silt Loam	DKC3551RRYGCB	97	17.5	56	2	191
N	Mean		106	19.2	56	24	207
Probability(%)							
Location (L)			0.0	0.0	0.0	1.1	0.0
Hybrid (H)			16.7	78.5	87.6	88.3	17.1
H x L			32.2	25.9	93.4	89.9	34.0
LSD (0.10)							
Location (L)			13	0.5	0	12	23
Hybrid (H)			NS	NS	NS	NS	NS
H x L			NS	NS	NS	NS	NS
CV(%)							
			16	6	2	66	16