

FIELD EXPERIMENT HISTORY

Title: Corn Seed Decay and Seedling Blight in Reduced Tillage Systems
Experiment: 08SeedFungicide **Trial ID** 2261 **Year:** 2002
Personnel: J.G. Lauer, P.J. Flannery, and K.D. Kohn
Location: Marshfield, WI **County:** Wood
Supported By: Gustufson

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Loyal
Soil Test: **Date:** 11/1 /02 **pH** 6.4 **OM (%)** 3.1 **P (ppm)** 62 **K (ppm)** 172

Plot Management

Tillage Operations: Chisel Plow Field Cultivator Cultivated

Fertilizer:

	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	N/A	N/A	N/A
Starter	6-24-24	150	5 /15/02
Post plant	46-0-0	46	7 /1 /02
Manure:	None	N/A	

Herbicide: Harness 1.0 qt/A Insecticide: None
Hornet 2.4 oz/A

Irrigation: None **Hybrid:** See Factors

Planting Date: 5/15/02 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Kinze Plot Planter

Harvest Date: 10/31/02 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23' x10' **Experiment Size:** 0.17 A
Harvest Plot Size: 23' x 5' **Harvest Plant Density:** 26894 plants per acre

Factors/Treatments:

Seed Treatments:

Control;
Maxim XL @ 0.167 fl oz/cwt;
Vortex @ 0.04 fl oz/cwt & Allegiance (2.65 FL) @ 0.2 oz/cwt;
Captan 400C (4 FL) @ 1.75 oz/cwt & Allegiance (2.65 FL) @ 0.2 oz/cwt & CTS @ 1.0 oz/cwt;
Maxim XL @ 0.167 oz/cwt & Gaucho 600 FS (x-1Gg) @ 0.16 mg ai/seed;
Maxim XL @ 0.167 oz/cwt & Clothianidin @ 0.25 mg ai/seed;

Hybrids:

Pioneer 38P05
Pioneer 39F06

Results: TableC-37.

**Table C-37. Corn Seed Decay and Seedling Blight in Difficult Emergence Environments
Marshfield, WI - 2002**

Hybrid	Seed treatment	Population at V6 plants/A	Harvest population plants/A	Lodging %	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Grower return \$/A
	Control	28030	25631	1	192	26.8	52	386
	Captan+Allegiance+CTS	29293	26894	2	197	26.3	52	398
	Maxim XL	30176	26641	1	203	26.7	52	409
	Maxim XL+Clothianidin	30618	27714	3	199	26.5	52	401
	Maxim XL+Gaucho	30176	27209	0	202	26.2	52	409
	Vortex+Allegiance	29166	27272	0	203	26.1	52	410
Pioneer 38P05		30008	27272	1	206	26.9	52	414
Pioneer 39F06		29145	26515	2	192	26.0	52	390
Pioneer 38P05	Control	28409	25631	1	199	27.5	52	399
Pioneer 38P05	Captan+Allegiance+CTS	29545	28282	0	205	26.8	52	412
Pioneer 38P05	Maxim XL	31439	26641	0	214	26.7	52	431
Pioneer 38P05	Maxim XL+Clothianidin	30555	28661	1	205	27.3	52	410
Pioneer 38P05	Maxim XL+Gaucho	30429	27399	1	204	26.6	52	411
Pioneer 38P05	Vortex+Allegiance	29671	27020	0	209	26.2	52	423
Pioneer 39F06	Control	27651	25631	0	185	26.1	52	374
Pioneer 39F06	Captan+Allegiance+CTS	29040	25505	4	189	25.8	52	384
Pioneer 39F06	Maxim XL	28914	26641	2	192	26.6	52	387
Pioneer 39F06	Maxim XL+Clothianidin	30681	26767	5	193	25.6	52	391
Pioneer 39F06	Maxim XL+Gaucho	29924	27020	0	200	25.9	52	406
Pioneer 39F06	Vortex+Allegiance	28661	27525	0	196	26.0	52	397
Mean		29577	26894	1	199	26.4	52	402
Probability (%)								
	Seed treatment (S)	0.2	13.9	29.2	34.4	61.8	83.3	32.0
	Hybrid (H)	1.1	15.8	20.4	0.0	0.0	71.6	0.1
	S x H	23.0	41.6	56.8	58.0	5.8	92.0	57.5
LSD (0.10)								
	Seed treatment (S)	820	NS	NS	NS	NS	NS	NS
	Hybrid (H)	514	NS	NS	5	0.3	NS	25
	S x H	NS	NS	NS	NS	0.7	NS	NS
CV (%)								
		3	6	220	4	2	1	4

FIELD EXPERIMENT HISTORY

Title: Corn Seed Decay and Seedling Blight in Reduced Tillage Systems
Experiment: 08SeedFungicide **Trial ID** 2262 **Year:** 2002
Personnel: J.G. Lauer, P.J. Flannery, and K.D. Kohn
Location: Seymour, WI **County:** Outagamie
Supported By: Gustufson

Site Information

Field: **Previous Crop:** Corn **Soil Type:**
Soil Test: **Date:** 11/1 /02 **pH** 7.4 **OM (%)** 2.9 **P (ppm)** 41 **K (ppm)** 165

Plot Management

Tillage Operations: Chisel Plow Soil Finisher Cultivated

Fertilizer:

	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	N/A	N/A	N/A
Starter	6-24-24	150	5 /16/02
Post plant	82-0-0	150A	7 /2 /02
Manure:	None	N/A	

Herbicide: Accent 0.33 oz/A
Northstar 4.5 oz/A
Effective 2.5 pt/A **Insecticide:** Force @ 4.4 lbs/A

Irrigation: None **Hybrid:** See Factors

Planting Date: 5/16/02 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Kinze Plot Planter

Harvest Date: 10/23/02 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23' x10' **Experiment Size:** 0.17 A
Harvest Plot Size: 23' x 5' **Harvest Plant Density:** 21180 plants per acre

Factors/Treatments:

Seed Treatments:

Control;
Maxim XL @ 0.167 fl oz/cwt;
Vortex @ 0.04 fl oz/cwt & Allegiance (2.65 FL) @ 0.2 oz/cwt;
Captan 400C (4 FL) @ 1.75 oz/cwt & Allegiance (2.65 FL) @ 0.2 oz/cwt & CTS @ 1.0 oz/cwt;
Maxim XL @ 0.167 oz/cwt & Gaucho 600 FS (x-1Gg) @ 0.16 mg ai/seed;
Maxim XL @ 0.167 oz/cwt & Clothianidin @ 0.25 mg ai/seed;

Hybrids:

Pioneer 38P05
Pioneer 39F06

Results: TableC-38.

**Table C-38. Corn Seed Decay and Seedling Blight in Difficult Emergence Environments
Seymour, WI - 2002**

Hybrid	Seed treatment	Harvest		Grain	Grain	Test	Grower
		population	Lodging	yield	moisture	weight	return
		plants/A	%	bu/A	%	lb/bu	\$/A
	Control	18371	0	131	29.1	52	258.6
	Captan+Allegiance+CTS	22222	0	142	30.3	52	277.8
	Maxim XL	18560	0	150	28.9	52	296.7
	Maxim XL+Clothianidin	21022	0	141	29.0	51	280.1
	Maxim XL+Gaucho	23926	0	144	29.6	52	283.2
	Vortex+Allegiance	22979	0	145	28.5	53	289.1
Pioneer 38P05		21170	0	150	29.5	52	297.1
Pioneer 39F06		21191	0	134	29.0	52	264.7
Pioneer 38P05	Control	19697	0	144	29.2	52	285.8
Pioneer 38P05	Captan+Allegiance+CTS	20707	0	138	31.4	52	267.7
Pioneer 38P05	Maxim XL	16919	0	165	29.3	52	326.4
Pioneer 38P05	Maxim XL+Clothianidin	26641	0	175	28.4	51	348.7
Pioneer 38P05	Maxim XL+Gaucho	22979	1	150	29.8	52	295.6
Pioneer 38P05	Vortex+Allegiance	20075	0	135	28.9	52	267.9
Pioneer 39F06	Control	17045	0	117	28.9	52	231.4
Pioneer 39F06	Captan+Allegiance+CTS	23737	0	146	29.2	53	287.9
Pioneer 39F06	Maxim XL	20202	0	139	28.6	52	276.9
Pioneer 39F06	Maxim XL+Clothianidin	15404	0	107	29.6	52	211.4
Pioneer 39F06	Maxim XL+Gaucho	24873	0	137	29.3	52	270.7
Pioneer 39F06	Vortex+Allegiance	25883	0	155	28.1	53	310.2
Mean		21180	0	142	29.2	52	280.4
Probability (%)							
	Seed treatment (S)	48.2	46.5	96.1	26.4	29.7	95.8
	Hybrid (H)	99.2	33.7	26.8	13.8	23.6	29.7
	S x H	22.8	45.8	44.9	29.6	24.4	43.1
LSD (0.10)							
	Seed treatment (S)	NS	NS	NS	NS	NS	NS
	Hybrid (H)	NS	NS	NS	NS	NS	NS
	S x H	NS	NS	NS	NS	NS	NS
CV (%)							
		28	600	26	4	1	27

FIELD EXPERIMENT HISTORY

Title: Corn Seed Decay and Seedling Blight in Reduced Tillage Systems
Experiment: 08SeedFungicide **Trial ID** 2263 **Year:** 2002
Personnel: J.G. Lauer, P.J. Flannery, and K.D. Kohn
Location: Valders, WI **County:** Manitowoc
Supported By: Gustufson

Site Information

Field: **Previous Crop:** Corn **Soil Type:** Kewanee
Soil Test: **Date:** 11/1 /02 **pH** 6.8 **OM (%)** 2.8 **P (ppm)** 40 **K (ppm)** 105

Plot Management

Tillage Operations: Moldboard Plow Field Cultivator Cultivated

Fertilizer:

	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	N/A	N/A	N/A
Starter	6-24-24	150	5 /15/02
Post plant	N/A	N/A	N/A
Manure:	Manure	7500 gal/A	

Herbicide: Surpass 1.0 pt/A
Accent Gold 2.0 oz/A
Banvel 2.0 oz/A **Insecticide:** Force @ 4.4 lbs/A

Irrigation: None **Hybrid:** See Factors

Planting Date: 5/15/02 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Kinze Plot Planter

Harvest Date: 10/17/02 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 23' x10' **Experiment Size:** 0.17 A
Harvest Plot Size: 23' x 5' **Harvest Plant Density:** 26536 plants per acre

Factors/Treatments:

Seed Treatments:

Control;
Maxim XL @ 0.167 fl oz/cwt;
Vortex @ 0.04 fl oz/cwt & Allegiance (2.65 FL) @ 0.2 oz/cwt;
Captan 400C (4 FL) @ 1.75 oz/cwt & Allegiance (2.65 FL) @ 0.2 oz/cwt & CTS @ 1.0 oz/cwt;
Maxim XL @ 0.167 oz/cwt & Gaucho 600 FS (x-1Gg) @ 0.16 mg ai/seed;
Maxim XL @ 0.167 oz/cwt & Clothianidin @ 0.25 mg ai/seed;

Hybrids:

Pioneer 38P05
Pioneer 39F06

Results: TableC-39.

**Table C-39. Corn Seed Decay and Seedling Blight in Difficult Emergence Environments
Valders, WI - 2002**

Hybrid	Seed treatment	Population at V6 plants/A	Harvest population plants/A	Lodging %	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Grower return \$/A
	Control	30303	25820	2	134	22.6	55	277
	Captan+Allegiance+CTS	30618	25063	3	129	22.6	56	269
	Maxim XL	31060	26957	1	133	22.6	56	277
	Maxim XL+Clothianidin	31060	27083	1	141	22.5	56	292
	Maxim XL+Gaucho	30808	27083	2	139	22.8	56	288
	Vortex+Allegiance	30871	27209	2	148	23.1	56	307
Pioneer 38P05		31207	26473	2	146	23.4	56	302
Pioneer 39F06		30366	26599	2	128	22.0	56	268
Pioneer 38P05	Control	31565	26515	1	145	23.0	56	301
Pioneer 38P05	Captan+Allegiance+CTS	30808	25000	2	138	23.1	56	285
Pioneer 38P05	Maxim XL	31060	26262	2	140	24.0	56	287
Pioneer 38P05	Maxim XL+Clothianidin	31060	26894	1	152	23.4	55	314
Pioneer 38P05	Maxim XL+Gaucho	31818	27777	1	149	23.4	55	308
Pioneer 38P05	Vortex+Allegiance	30934	26389	4	154	23.5	56	317
Pioneer 39F06	Control	29040	25126	4	122	22.2	55	253
Pioneer 39F06	Captan+Allegiance+CTS	30429	25126	4	121	22.0	56	252
Pioneer 39F06	Maxim XL	31060	27651	1	127	21.1	56	267
Pioneer 39F06	Maxim XL+Clothianidin	31060	27272	0	129	21.7	56	270
Pioneer 39F06	Maxim XL+Gaucho	29798	26389	3	128	22.2	56	267
Pioneer 39F06	Vortex+Allegiance	30808	28030	0	143	22.7	56	296
Mean		30787	26536	2	137	22.7	56	285
Probability (%)								
	Seed treatment (S)	65.8	7.0	77.7	11.2	95.9	83.8	11.2
	Hybrid (H)	0.7	77.7	87.8	0.5	1.4	32.7	0.6
	S x H	4.9	26.0	31.4	96.7	79.8	2.1	95.5
LSD (0.10)								
	Seed treatment (S)	NS	1326	NS	NS	NS	NS	NS
	Hybrid (H)	464	NS	NS	9	1	NS	19
	S x H	1136	NS	NS	NS	NS	1	NS
CV (%)								
		3	5	126	11	6	1	10