

# FIELD EXPERIMENT HISTORY

Year: 1996

**Title:** Managing Corn Seed Decay and Seedling Blight in Reduced Tillage Systems  
**Personnel:** J.G. Lauer, C. Grau, K.D. Hudelson  
**Location:** Arlington Research Station, Arlington, WI  
**Supported by:** Ciba, Inc., Hatch Project 1890

## FIELD INFORMATION

Field: 406  
 Soil Type: Plano Silt Loam  
 Soil Test Results: Test Date: 10/95    pH: 6.4    P (ppm): 47    K (ppm): 185    OM (%): 3.4  
 Fertilizer: 19-Apr 150 lbs N/a 46-0-0  
 24-Apr 100 lbs/a 6-24-24 starter  
 Tillage Operations: None  
 Previous Crop: Corn  
 Irrigation: None

## EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split-Split Plot  
 Replicates: 4  
 Variables: A: Tillage, B: Seed Vigor, C: Seed Treatment

Seed Treatments:	Rates (oz fluid product/cwt):
Untreated Control	
Captan 400	2.40 fl oz
Captan 400 + Apron FS	2.40 fl oz + 0.09 fl oz
Maxim + Apron FS	0.08 fl oz + 0.09 fl oz
Maxim + Apron XL	0.08 fl oz + 0.045 fl oz

Area Planted: 10' x 25'  
 Area Harvested: 5.0' x 20'  
 Row Spacing: 30"

Hybrid/Variety: 2 hybrids differing in seedling vigor: high quality(HQ) and medium quality(MQ)  
 2 inbreds differing in seedling vigor: high quality(HQ) and medium quality(MQ)

Planting Date: 24-Apr  
 Planting Equip: JD 7000 Planter w/ 3 coulters  
                   NT - 2 ripple coulters, 1 fluted  
                   ZT - 3 fluted coulters

Planting Rate: 32,000 seeds/acre

Harvesting Date: 17-Oct  
 Harvesting Equip: Gleaner Plot Combine

	<u>Date</u>	<u>Material</u>	<u>Rate</u>	<u>Method</u>
Insecticide:	24-Apr	Lorsban	8 oz/1000 ft	planter
Herbicides:	25-Apr	Roundup	4 pts/a	preemerg
	3-May	Bladex 90DF	2.2 lbs/a	preemerg
	3-May	Lasso	2 qts/a	preemerg

Results: Table E-41.

**Table E-41. Corn Seed Decay and Seedling Blight in Reduced Tillage Systems  
Arlington, WI 1996 (Ciba)**

		Root and Plant Ratings - 42 Days after Planting																					
Tillage	Seedling Vigor	Seed Treatment	Days After Planting				No. of Plants Rated	Leaf Collars	Total Leaves Visible	No. of Seeds Rated	Kernel Rot	Root Discolor	Primary Root Longevity	Seminal Root Length	Nodal Root Length	Whole Plant Dry Wt	Final Stand	Broken Stalks	Moist	Yield			
			35	37	41	47																	
			% Emergence								\1	\2	\3	cm	cm	cm	g/plant	plants/A	%	%	bu/a		
NT			45.2	47.8	52.2	53.9	4.1	1.4	3.2	4.7	1.5	1.4	1.4	4.7	3.4	16.9	1.7	5.9	0.19	17914	3.8	35.4	83.7
ZT			46.1	48.3	50.4	54.2	4.2	1.2	3.1	4.6	1.5	1.4	1.5	4.8	3.2	14.1	1.5	4.4	0.18	17745	5.6	36.0	82.7
	HQ Hybrid		60.8	59.4	59.7	61.1	4.4	1.8	3.9	4.9	1.5	1.4	1.4	5.2	4.2	19.4	2.4	8.8	0.26	21192	1.2	28.9	120.2
	HQ Inbred		28.4	36.0	43.3	46.6	3.8	0.9	2.4	4.5	1.6	1.6	1.5	4.5	1.8	7.3	0.2	0.2	0.11	14952	3.5	36.4	39.7
	MQ Hybrid		56.7	57.5	60.1	62.1	4.4	1.3	3.2	4.6	1.4	1.3	1.5	5.1	3.9	20.6	2.1	6.5	0.22	21279	6.2	44.8	106.2
	MQ Inbred		36.7	39.4	42.0	46.3	4.0	1.1	2.9	4.5	1.6	1.3	1.5	4.2	3.2	13.4	1.6	4.2	0.15	13896	7.9	32.4	63.3
NT	HQ Hybrid		60.9	61.5	61.8	61.5	4.0	1.9	4.0	4.8	1.4	1.3	1.3	5.5	4.3	20.5	2.6	9.9	0.26	21758	1.4	30.1	117.0
ZT	HQ Hybrid		60.7	57.2	57.7	60.7	4.7	1.7	3.9	5.0	1.6	1.4	1.4	4.8	4.0	18.4	2.3	7.7	0.26	20626	1.0	27.7	123.2
NT	HQ Inbred		30.7	35.4	44.7	47.4	4.1	0.9	2.3	4.8	1.5	1.8	1.6	3.7	1.6	6.8	0.3	0.3	0.13	14832	4.4	36.2	39.3
ZT	HQ Inbred		26.0	36.6	41.9	45.7	3.5	0.9	2.5	4.1	1.6	1.4	1.4	5.2	1.9	7.7	0.1	0.1	0.10	15072	2.6	36.6	40.1
NT	MQ Hybrid		52.5	55.8	59.2	59.9	4.4	1.4	3.4	4.6	1.6	1.2	1.3	5.6	4.0	23.9	2.3	7.6	0.22	20865	3.4	44.9	105.0
ZT	MQ Hybrid		60.9	59.2	60.9	64.4	4.3	1.1	3.0	4.6	1.2	1.4	1.7	4.5	3.8	17.2	1.9	5.4	0.22	21693	9.0	44.8	107.3
NT	MQ Inbred		36.6	38.6	42.9	46.6	3.8	1.2	3.0	4.4	1.6	1.3	1.4	3.8	3.6	15.1	1.6	5.2	0.16	14201	6.0	29.4	68.6
ZT	MQ Inbred		36.9	40.2	41.1	45.9	4.1	1.0	2.9	4.5	1.7	1.3	1.6	4.7	2.8	11.6	1.5	3.2	0.14	13591	9.8	34.8	58.8
		Captan	52.8	54.7	58.7	59.5	4.8	1.3	3.2	4.9	1.8	1.4	1.5	4.3	3.0	13.7	1.4	3.5	0.19	20255	3.7	35.2	88.0
		Captan + Apron FS	53.2	60.1	61.1	66.2	4.5	1.3	3.1	4.8	1.8	1.2	1.3	5.6	2.9	14.7	1.6	5.0	0.19	21916	3.0	35.0	98.5
		Control	11.6	9.7	15.2	12.7	1.8	1.3	3.4	3.6	1.1	1.8	1.8	2.5	4.6	17.8	2.1	7.7	0.17	4479	9.5	38.0	43.3
		Maxim + Apron FS	54.6	57.7	61.4	65.4	4.8	1.2	3.2	4.8	1.5	1.3	1.4	5.1	3.4	15.6	1.7	5.3	0.19	21317	4.0	35.5	91.7
		Maxim + Apron XL	55.9	58.1	60.1	66.1	4.8	1.3	3.1	5.0	1.4	1.4	1.4	5.7	3.1	16.6	1.6	5.0	0.19	21181	3.4	35.1	88.0
NT		Captan	53.3	54.7	59.9	58.8	4.9	1.3	3.2	5.0	1.8	1.5	1.5	4.7	3.0	13.4	1.3	3.5	0.19	20609	3.0	35.0	86.8
ZT		Captan	52.3	54.7	57.5	60.3	4.6	1.2	3.1	4.9	1.9	1.4	1.5	3.9	3.0	14.0	1.4	3.5	0.19	19901	4.4	35.5	89.1
NT		Captan + Apron FS	49.2	58.8	61.0	65.4	4.4	1.2	2.9	4.6	1.8	1.3	1.3	5.1	2.9	16.4	1.5	5.0	0.18	21698	4.1	34.0	95.5
ZT		Captan + Apron FS	57.3	61.4	61.1	67.1	4.6	1.3	3.2	4.9	1.8	1.1	1.2	6.0	2.9	12.9	1.6	5.0	0.20	22134	1.8	35.8	101.1
NT		Control	12.0	10.6	19.5	13.3	1.8	1.8	3.7	4.0	1.0	1.5	1.4	1.9	5.0	21.6	2.5	11.2	0.21	4193	5.6	38.6	49.2
ZT		Control	11.2	8.8	10.9	12.2	1.8	0.8	3.1	3.1	1.1	2.2	2.3	3.4	4.0	13.3	1.5	3.6	0.14	4764	13.4	37.6	39.0
NT		Maxim + Apron FS	54.6	57.9	61.6	65.8	4.5	1.3	3.3	4.6	1.6	1.3	1.3	5.9	3.7	16.8	1.7	5.7	0.20	22733	2.5	35.5	92.4
ZT		Maxim + Apron FS	54.6	57.6	61.1	65.1	5.0	1.2	3.1	4.9	1.5	1.3	1.5	4.3	3.1	14.3	1.7	4.9	0.19	19901	5.6	35.6	91.1
NT		Maxim + Apron XL	56.7	57.1	58.9	66.0	4.9	1.3	3.1	5.0	1.4	1.5	1.4	5.5	3.0	17.4	1.7	5.4	0.19	20337	3.7	34.6	85.7
ZT		Maxim + Apron XL	55.2	59.0	61.3	66.3	4.8	1.3	3.0	5.0	1.4	1.3	1.4	5.8	3.3	15.7	1.4	4.5	0.19	22025	3.1	35.6	90.3
	HQ Hybrid	Captan	71.5	68.1	70.7	68.8	4.8	1.7	3.9	5.0	1.8	1.6	1.6	3.5	3.5	14.1	2.1	5.8	0.24	24775	1.3	28.4	134.1
	HQ Inbred	Captan	31.4	38.7	49.7	50.5	4.8	1.0	2.7	4.8	1.8	1.6	1.5	4.5	2.0	9.3	0.5	0.4	0.13	15246	0.9	35.1	37.1
	MQ Hybrid	Captan	66.4	66.6	67.8	69.2	4.5	1.4	3.3	5.0	1.8	1.3	1.4	4.8	3.8	19.9	2.2	6.6	0.25	24720	4.3	45.3	120.6
	MQ Inbred	Captan	42.0	45.4	46.6	49.7	5.0	0.9	2.7	5.0	2.0	1.4	1.6	4.5	2.6	11.4	0.8	1.4	0.15	16281	8.3	32.2	60.1
	HQ Hybrid	Captan + Apron FS	68.3	69.4	67.4	69.6	4.8	1.9	4.1	4.8	1.8	1.2	1.0	6.7	3.9	19.6	3.0	11.4	0.27	24230	1.0	28.5	138.5
	HQ Inbred	Captan + Apron FS	35.9	50.1	51.8	60.2	4.0	0.7	2.0	4.3	1.9	1.4	1.3	5.6	1.5	6.2	0.0	0.0	0.12	20800	0.8	37.2	48.9
	MQ Hybrid	Captan + Apron FS	62.2	69.4	68.5	76.6	4.8	1.3	3.3	5.0	1.8	1.3	1.5	5.8	3.4	21.4	2.1	6.1	0.21	25483	2.4	44.6	127.7
	MQ Inbred	Captan + Apron FS	46.5	51.4	56.7	58.6	4.5	1.1	2.9	5.0	1.9	1.0	1.2	4.0	2.8	11.5	1.2	2.6	0.16	17152	7.6	31.1	76.2
	HQ Hybrid	Control	21.5	21.1	23.9	22.6	3.0	1.3	3.8	5.0	1.3	1.8	1.8	2.2	4.5	17.6	1.9	7.3	0.29	7841	1.8	32.3	61.1
	HQ Inbred	Control	5.4	4.6	15.8	6.8	0.8	1.0	2.3	3.3	1.0	2.3	2.3	5.0	1.3	5.7	0.0	0.0	0.12	2396	13.3	35.6	18.9
	MQ Hybrid	Control	13.2	11.1	16.2	15.2	2.5	1.0	2.8	3.0	1.0	1.7	1.9	1.5	4.4	17.1	1.9	6.0	0.15	6588	11.7	44.4	56.3
	MQ Inbred	Control	6.3	2.0	4.9	6.3	0.8	2.0	4.3	3.0	1.0	1.8	1.5	2.7	6.5	25.8	3.8	15.8	0.13	1089	11.7	41.6	17.7
	HQ Hybrid	Maxim + Apron FS	70.5	68.6	68.3	73.0	4.5	1.9	3.9	4.8	1.5	1.2	1.2	5.8	4.4	22.6	2.8	10.6	0.25	24339	0.9	28.0	136.7
	HQ Inbred	Maxim + Apron FS	31.5	42.9	49.7	56.1	5.0	0.9	2.6	5.0	1.6	1.6	1.4	4.2	2.2	9.9	0.3	0.3	0.11	18949	1.6	37.2	48.7
	MQ Hybrid	Maxim + Apron FS	72.8	70.1	74.5	75.1	5.0	1.1	3.2	5.0	1.4	1.2	1.6	5.7	4.1	18.9	2.0	5.6	0.26	25428	6.1	44.8	119.9
	MQ Inbred	Maxim + Apron FS	43.5	49.3	53.0	57.5	4.5	1.0	3.0	4.3	1.6	1.2	1.4	4.6	2.9	11.0	1.8	4.8	0.17	16553	7.5	31.3	67.3

**Table E-41. Corn Seed Decay and Seedling Blight in Reduced Tillage Systems  
Arlington, WI 1996 (Ciba)**

			Root and Plant Ratings - 42 Days after Planting																				
Tillage	Seedling Vigor	Seed Treatment	Days After Planting				No. of Plants Rated	Leaf Collars	Total Leaves Visible	No. of Seeds Rated	Kernel Rot	Root Discolor	Primary Root Longevity	Seminal Root Length	Seminal Root Number	Nodal Root Length	Nodal Root Number	Whole Plant Dry Wt	Final Stand	Broken Stalks	Moist	Yield	
			35	37	41	47																	
			% Emergence								\1\	\2\	\3\	cm	cm	cm	g/plant	plants/A	%	%	bu/a		
	HQ Hybrid	Maxim + Apron XL	72.0	69.6	68.3	71.6	4.8	1.9	4.0	5.0	1.3	1.2	1.2	7.0	4.5	23.2	2.4	8.8	0.27	24775	1.1	27.0	132.6
	HQ Inbred	Maxim + Apron XL	37.6	43.6	49.6	59.1	4.5	1.0	2.2	5.0	1.4	1.7	1.7	3.3	1.4	4.1	0.3	0.3	0.10	17370	0.6	36.8	43.6
	MQ Hybrid	Maxim + Apron XL	68.8	70.2	73.4	74.5	5.0	1.5	3.5	5.0	1.2	1.1	1.1	7.7	3.8	25.7	2.2	8.5	0.25	24176	6.5	45.0	109.3
	MQ Inbred	Maxim + Apron XL	45.4	48.8	49.1	59.4	5.0	0.9	2.6	5.0	1.8	1.6	1.7	4.7	3.0	13.3	1.4	2.3	0.15	18404	5.4	31.5	66.7
NT	HQ Hybrid	Captan	73.4	68.8	73.4	67.9	4.5	1.8	3.8	5.0	1.5	1.7	1.7	4.0	3.2	12.3	2.2	6.0	0.23	25809	1.7	29.3	129.4
ZT	HQ Hybrid	Captan	69.6	67.4	67.9	69.6	5.0	1.7	4.0	5.0	2.0	1.4	1.4	3.0	3.8	16.0	2.0	5.6	0.25	23740	0.9	27.5	138.8
NT	HQ Inbred	Captan	35.3	41.9	56.3	52.7	5.0	1.0	2.7	5.0	1.9	1.6	1.3	4.8	2.0	8.9	0.5	0.4	0.13	15137	0.0	35.9	42.8
ZT	HQ Inbred	Captan	27.5	35.6	43.2	48.4	4.5	1.0	2.8	4.5	1.8	1.5	1.6	4.1	2.0	9.7	0.5	0.5	0.12	15355	1.8	34.4	31.3
NT	MQ Hybrid	Captan	62.2	63.0	64.4	65.5	5.0	1.4	3.5	5.0	1.9	1.2	1.3	5.2	3.9	19.2	2.2	6.9	0.25	24176	6.0	45.4	111.3
ZT	MQ Hybrid	Captan	70.7	70.1	71.2	72.8	4.0	1.3	3.1	5.0	1.7	1.3	1.4	4.3	3.8	20.5	2.1	6.2	0.25	25265	2.6	45.3	129.9
NT	MQ Inbred	Captan	42.4	45.1	45.4	49.2	5.0	0.9	2.7	5.0	1.9	1.3	1.7	4.8	2.7	13.1	0.5	0.9	0.16	17315	4.2	29.6	63.8
ZT	MQ Inbred	Captan	41.6	45.7	47.8	50.3	5.0	0.9	2.7	5.0	2.0	1.4	1.5	4.2	2.4	9.7	1.1	1.8	0.13	15246	12.3	34.8	56.5
NT	HQ Hybrid	Captan + Apron FS	70.1	73.9	68.8	72.3	4.5	1.9	4.0	4.5	1.6	1.2	1.0	7.4	3.7	20.6	2.7	10.4	0.28	26136	1.0	29.1	136.3
ZT	HQ Hybrid	Captan + Apron FS	66.6	65.0	66.0	66.9	5.0	2.0	4.1	5.0	2.0	1.1	1.0	6.1	4.1	18.6	3.2	12.3	0.27	22325	1.0	27.9	140.7
NT	HQ Inbred	Captan + Apron FS	31.5	43.5	48.9	57.3	4.0	0.5	1.6	4.0	1.8	1.6	1.6	3.8	1.4	5.5	0.0	0.0	0.08	19493	1.1	35.5	43.1
ZT	HQ Inbred	Captan + Apron FS	40.2	56.8	54.6	63.0	4.0	0.8	2.4	4.5	1.9	1.2	1.1	7.5	1.7	6.8	0.0	0.0	0.16	22107	0.6	38.5	53.3
NT	MQ Hybrid	Captan + Apron FS	50.8	69.0	68.8	75.0	4.5	1.4	3.3	5.0	2.0	1.4	1.4	5.9	3.6	28.7	2.0	6.7	0.21	24829	3.5	44.5	124.5
ZT	MQ Hybrid	Captan + Apron FS	73.6	69.8	68.2	78.3	5.0	1.2	3.3	5.0	1.5	1.1	1.6	5.6	3.2	14.2	2.1	5.4	0.22	26136	1.2	44.8	130.0
NT	MQ Inbred	Captan + Apron FS	44.3	48.9	57.6	57.1	4.5	1.3	2.8	5.0	1.9	1.0	1.3	3.1	2.8	10.9	1.5	2.9	0.16	16335	11.0	30.0	72.2
ZT	MQ Inbred	Captan + Apron FS	48.6	53.8	55.7	60.1	4.5	1.0	3.0	5.0	1.9	1.0	1.1	5.0	2.7	12.1	0.9	2.3	0.15	17969	4.3	32.1	80.3
NT	HQ Hybrid	Control	21.7	23.1	28.8	25.0	2.5	1.8	4.0	5.0	1.0	1.1	1.5	2.3	5.0	20.6	2.5	11.4	0.27	7950	3.6	34.8	63.1
ZT	HQ Hybrid	Control	21.2	19.0	19.0	20.1	3.5	1.0	3.8	5.0	1.5	2.5	2.1	1.9	4.1	14.6	1.2	3.3	0.32	7732	0.0	29.8	59.1
NT	HQ Inbred	Control	6.8	4.9	23.4	5.7	1.5	1.0	2.3	5.0	1.0	2.3	2.3	1.7	1.3	5.7	0.0	0.0	0.23	1198	16.7	35.8	14.0
ZT	HQ Inbred	Control	4.1	4.4	8.2	7.9	0.0	.	.	1.5	1.0	.	.	8.2	.	.	.	.	0.00	3594	10.0	35.4	22.6
NT	MQ Hybrid	Control	13.9	12.0	18.8	15.8	2.5	1.6	3.5	3.0	1.0	1.2	1.1	1.6	4.3	21.8	3.0	9.6	0.16	6316	0.9	44.3	61.7
ZT	MQ Hybrid	Control	12.5	10.3	13.6	14.7	2.5	0.5	2.1	3.0	1.0	2.3	2.8	1.3	4.5	12.4	0.9	2.4	0.15	6861	22.6	44.4	51.0
NT	MQ Inbred	Control	5.4	2.5	7.1	6.5	0.5	3.0	5.0	3.0	1.0	2.0	1.0	1.9	10.0	39.0	4.0	25.0	0.16	1307	0.0	.	.
ZT	MQ Inbred	Control	7.1	1.6	2.7	6.0	1.0	1.0	3.5	3.0	1.0	1.5	2.0	4.4	3.0	12.5	3.5	6.5	0.10	871	23.3	41.6	17.7
NT	HQ Hybrid	Maxim + Apron FS	68.5	70.1	66.6	69.3	4.0	1.9	3.9	4.5	1.5	1.3	1.4	6.6	5.1	24.3	2.8	10.9	0.24	24394	0.5	28.8	136.6
ZT	HQ Hybrid	Maxim + Apron FS	72.6	67.1	70.1	76.6	5.0	2.0	4.0	5.0	1.4	1.0	1.1	5.1	3.8	20.9	2.9	10.4	0.25	24285	1.3	27.4	136.7
NT	HQ Inbred	Maxim + Apron FS	38.6	44.8	49.5	60.3	5.0	1.0	2.8	5.0	1.6	1.5	1.3	4.6	2.2	9.7	0.4	0.4	0.11	21344	2.8	37.0	44.9
ZT	HQ Inbred	Maxim + Apron FS	24.5	41.0	50.0	51.9	5.0	0.8	2.3	5.0	1.6	1.7	1.4	3.9	2.2	10.0	0.1	0.1	0.11	16553	0.5	37.4	52.5
NT	MQ Hybrid	Maxim + Apron FS	68.8	67.9	73.4	72.8	5.0	1.2	3.4	5.0	1.7	1.0	1.4	7.6	4.3	21.9	2.2	7.1	0.28	26354	1.2	45.1	129.1
ZT	MQ Hybrid	Maxim + Apron FS	76.9	72.3	75.5	77.5	5.0	1.0	3.0	5.0	1.1	1.4	1.7	3.7	3.8	15.9	1.7	4.0	0.23	24503	11.0	44.5	110.7
NT	MQ Inbred	Maxim + Apron FS	42.7	48.6	57.1	60.6	4.0	1.0	3.0	4.0	1.4	1.3	1.3	4.8	3.1	11.4	1.6	4.5	0.17	18840	5.7	29.4	70.0
ZT	MQ Inbred	Maxim + Apron FS	44.3	50.0	48.9	54.4	5.0	1.0	2.9	4.5	1.8	1.2	1.6	4.4	2.7	10.6	2.0	5.1	0.16	14266	9.4	33.1	64.6
NT	HQ Hybrid	Maxim + Apron XL	70.7	71.7	71.5	72.8	4.5	2.0	4.2	5.0	1.3	1.1	1.0	7.4	4.5	24.7	2.7	10.7	0.30	24503	0.4	28.0	124.5
ZT	HQ Hybrid	Maxim + Apron XL	73.4	67.4	65.2	70.4	5.0	1.7	3.7	5.0	1.2	1.2	1.3	6.5	4.4	21.7	2.0	7.0	0.24	25047	1.8	26.0	140.6
NT	HQ Inbred	Maxim + Apron XL	41.3	41.9	45.7	60.9	5.0	0.9	2.0	5.0	1.1	2.2	1.9	2.7	1.1	3.8	0.6	0.6	0.09	16988	1.3	36.5	46.3
ZT	HQ Inbred	Maxim + Apron XL	34.0	45.4	53.5	57.3	4.0	1.0	2.4	5.0	1.6	1.2	1.6	4.0	1.7	4.4	0.0	0.0	0.10	17751	0.0	37.2	40.9
NT	MQ Hybrid	Maxim + Apron XL	66.6	66.9	70.9	70.4	5.0	1.5	3.5	5.0	1.5	1.1	1.1	7.7	3.7	28.1	1.9	7.7	0.22	22651	5.5	45.0	103.5
ZT	MQ Hybrid	Maxim + Apron XL	70.9	73.6	75.8	78.5	5.0	1.5	3.5	5.0	0.9	1.0	1.0	7.7	3.8	23.2	2.5	9.2	0.28	25700	7.5	45.0	115.1
NT	MQ Inbred	Maxim + Apron XL	48.1	47.8	47.6	59.8	5.0	0.9	2.6	5.0	1.7	1.5	1.6	4.2	2.7	13.2	1.5	2.6	0.16	17206	7.5	28.7	68.6
ZT	MQ Inbred	Maxim + Apron XL	42.7	49.7	50.5	59.0	5.0	0.9	2.5	5.0	1.8	1.6	1.8	5.2	3.2	13.4	1.2	1.9	0.14	19602	3.3	34.2	64.8

**Table E-41. Corn Seed Decay and Seedling Blight in Reduced Tillage Systems  
Arlington, WI 1996 (Ciba)**

Tillage	Seedling Vigor	Seed Treatment	Root and Plant Ratings - 42 Days after Planting																				
			Days After Planting				No. of Plants Rated	Leaf Collars	Total Leaves Visible	No. of Seeds Rated	Kernel Rot	Root Discolor	Primary Root Longevity	Primary Root Length	Seminal Root Number	Seminal Root Length	Nodal Root Number	Nodal Root Length	Whole Plant Dry Wt	Final Stand	Broken Stalks	Moist	Yield
			35	37	41	47																	
<b>Mean</b>			45.6	48.1	51.3	54.0	4.1	1.3	3.1	4.6	1.5	1.4	1.5	4.7	3.3	15.5	1.6	5.1	0.19	17830	4.7	35.7	83.1
<b>Probability (%)</b>																							
Tillage (T)			> 50	> 50	> 50	> 50		31.0	> 50		> 50	> 50	39.7	47.7	14.9	4.7	48.8	26.8	19.8	> 50	42.8	25.6	> 50
Seedling Vigor (V)			< 0.1	< 0.1	< 0.1	< 0.1		< 0.1	< 0.1		29.6	44.0	20.6	37.5	< 0.1	0.8	0.2	0.2	< 0.1	< 0.1	2.4	< 0.1	< 0.1
T x V			2.0	4.2	42.3	27.4		> 50	33.7		7.0	> 50	44.2	6.8	5.9	> 50	> 50	> 50	> 50	33.8	25.0	12.9	> 50
Seed Treatment (S)			< 0.1	< 0.1	< 0.1	< 0.1		> 50	> 50		< 0.1	6.2	0.3	0.9	< 0.1	9.8	48.1	9.7	> 50	< 0.1	3.9	0.2	< 0.1
T x S			20.3	> 50	30.9	> 50		< 0.1	5.3		> 50	39.0	1.1	6.2	< 0.1	< 0.1	8.6	< 0.1	22.0	3.1	20.6	> 50	> 50
V x S			< 0.1	0.4	15.0	48.9		0.1	0.6		> 50	> 50	5.3	4.6	< 0.1	< 0.1	0.3	< 0.1	25.1	15.3	> 50	< 0.1	1.0
T x V x S			> 50	37.3	> 50	> 50		> 50	> 50		> 50	37.1	47.3	> 50	< 0.1	1.9	> 50	> 50	6.4	> 50	21.4	> 50	> 50
<b>LDS (0.10)</b>																							
Tillage (T)			NS	NS	NS	NS		NS	NS		NS	NS	NS	NS	NS	1.7	NS	NS	NS	NS	NS	NS	NS
Seedling Vigor (V)			3.3	2.3	3.1	2.9		0.2	0.2		NS	NS	NS	NS	0.4	4.6	0.6	2.1	0.02	976	3.7	2.0	6.2
Seed Treatment (S)			3.8	2.8	4.4	3.2		NS	NS		0.2	0.3	0.2	1.1	0.3	1.9	NS	1.7	NS	1205	4.0	0.9	7.3
<b>CV%</b>			20.2	13.9	20.9	14.4		21.7	14.3		17.9	31.7	22.6	37.0	15.2	20.2	43.7	55.1	25.9	16.3	206.2	6.1	21.1

\1\ Kernel rot with 1=deterioration 2=no deterioration  
 \2\ Root discoloration with 1=none, 2=trace, 3=light, 4=moderate, and 5=severe  
 \3\ Longevity of primary root with 1=living, 2=blighted, 3=dead or pruned