

FIELD EXPERIMENT HISTORY

Title: The Interaction of Planting Date, Hybrid Maturity and Nitrogen, and their effect on Corn
Experiment: 12 Planting Date x Hybrid Maturity x Nitrogen Rate
Personnel: L.G. Bundy, J.G. Lauer, K.D. Kohn, and T.W. Andraski **Year: 1998**
Location: Arlington Research Station, Arlington, WI
Supported by: Hatch

Field Information

Soil Type: Plano Silt Loam
Soil Test Results: pH: 7.1 P (ppm): 30 K (ppm) 100 O.M.(%): 3.6
Tillage Operations: Spring chisel plow
Soil finisher prior to planting date
Cultivated
Starter Fertilizer: 150 lbs/A of 6-24-24 in a 2x2 placement
Previous Crop: Corn
Irrigation: None

Experimental Procedure

Design: RCB-Split **Replicates:** 4
Variables: Planting Dates: 30-Apr, 1-June, 15-June, 22-June
Hybrids: Pioneer 3394 (110 day) for 30-Apr only,
Pioneer 3751 (100 day), and Pioneer 3905 (90 day)
N Application Dates: 28-Apr for planting date 30-Apr,
26-May, for planting date 1-June,
4-June, for planting date 15-June,
17-June, for planting date 22-June.
Seeding Density: 27580 plants/A
Row Spacing: 30"
Insecticide: Lorsban 7 lbs/A
Herbicide: Dual/Bladex-preemerge and Accent/Buctril-postemerge
Date Harvested: Whole Plant: 16- Sept, 24- Sept, 8-Oct and 14-Oct
Grain: 2- Nov, 3-Nov and 11-Nov

Results: Table E-36.

**Table E-36. The Interaction of Planting Date, Hybrid Maturity and Nitrogen, and Their Effect on Corn
Arlington, WI - 1997**

Day Of year	Hybrid	Nitrogen rate lbs/A	Grain			Whole Plant	
			Yield bu/A	Moisture %	Test Wt lbs/bu	Yield T/A	Moisture %
	Pioneer 3394		224	18.1	59	11.4	57.3
	Pioneer 3751		183	23.4	54	9.4	59.4
	Pioneer 3941		164	20.2	57	8.3	54.2
		0	174	21.5	56	9.0	56.9
		40	176	21.3	56	8.8	57.2
		80	182	21.6	56	9.4	55.6
		120	185	21.0	56	9.2	57.0
		160	182	21.4	56	9.2	57.3
		200	180	21.3	56	9.4	57.0
	Pioneer 3394	0	215	17.9	59	11.3	57.5
	Pioneer 3751	0	172	23.3	54	9.0	59.6
	Pioneer 3941	0	163	20.7	56	8.3	53.7
	Pioneer 3394	40	208	17.9	59	10.2	58.0
	Pioneer 3751	40	182	23.5	54	9.2	59.8
	Pioneer 3941	40	161	20.1	57	7.9	54.4
	Pioneer 3394	80	231	18.0	58	11.3	54.8
	Pioneer 3751	80	186	23.8	54	9.8	57.8
	Pioneer 3941	80	164	20.5	56	8.4	53.7
	Pioneer 3394	120	218	18.7	58	11.3	58.4
	Pioneer 3751	120	188	23.2	54	9.6	59.0
	Pioneer 3941	120	171	19.5	57	8.0	54.5
	Pioneer 3394	160	234	18.0	59	12.5	57.6
	Pioneer 3751	160	188	23.7	54	9.0	60.3
	Pioneer 3941	160	164	20.1	56	8.5	54.5
	Pioneer 3394	200	238	18.3	59	11.7	57.7
	Pioneer 3751	200	183	23.2	54	9.5	59.7
	Pioneer 3941	200	161	20.1	57	8.6	54.3
121			199	16.6	58	10.2	51.6
152			195	20.9	57	9.6	62.4
161			177	24.0	55	8.5	58.9
173			145	26.2	52	7.9	59.9

continued

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Day Of year	Hybrid	Nitrogen rate lbs/A	Grain			Whole Plant	
			Yield bu/A	Moisture %	Test Wt lbs/bu	Yield T/A	Moisture %
121	Pioneer 3394		224	18.1	59	11.4	57.3
121	Pioneer 3751		211	16.4	57	10.4	50.7
121	Pioneer 3941		163	15.2	59	8.9	46.9
152	Pioneer 3751		209	22.6	56	9.7	65.3
152	Pioneer 3941		181	19.2	58	9.5	59.5
161	Pioneer 3751		180	26.1	54	9.1	61.9
161	Pioneer 3941		174	21.9	56	8.0	55.9
173	Pioneer 3751		144	28.4	51	8.4	62.7
173	Pioneer 3941		147	24.0	54	7.5	57.2
121		0	188	16.6	58	9.8	51.7
121		40	192	16.6	58	9.6	51.8
121		80	204	16.6	58	10.6	49.4
121		120	202	16.6	58	10.5	52.9
121		160	204	16.4	58	10.5	52.2
121		200	205	16.5	59	10.4	51.8
152		0	196	21.1	56	9.9	63.1
152		40	194	21.0	57	9.1	60.9
152		80	196	21.7	57	9.8	60.8
152		120	205	20.6	57	9.5	61.9
152		160	187	21.1	57	9.6	63.6
152		200	196	20.6	57	9.7	62.9
161		0	174	24.1	55	8.8	58.1
161		40	173	23.7	55	8.6	60.4
161		80	182	24.1	55	8.6	59.0
161		120	184	23.6	55	8.4	59.1
161		160	177	24.0	55	8.4	59.0
161		200	176	24.4	55	8.5	58.2
173		0	145	26.6	52	7.7	61.0
173		40	147	26.2	52	7.7	60.5
173		80	147	26.4	52	8.2	60.3
173		120	148	25.9	52	7.6	58.9
173		160	153	26.3	52	7.9	59.5
173		200	132	25.7	53	8.5	59.4

continued

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Day Of year	Hybrid	Nitrogen rate lbs/A	Grain			Whole Plant	
			Yield bu/A	Moisture %	Test Wt lbs/bu	Yield T/A	Moisture %
121	Pioneer 3394	0	215	17.9	59	11.3	57.5
121	Pioneer 3751	0	183	16.3	57	9.6	50.7
121	Pioneer 3941	0	165	15.4	59	8.6	46.8
121	Pioneer 3394	40	208	17.9	59	10.2	58.0
121	Pioneer 3751	40	211	16.7	58	9.7	51.4
121	Pioneer 3941	40	157	15.2	59	8.8	45.8
121	Pioneer 3394	80	231	18.0	58	11.3	54.8
121	Pioneer 3751	80	216	16.4	57	11.0	48.1
121	Pioneer 3941	80	167	15.5	59	9.6	45.2
121	Pioneer 3394	120	218	18.7	58	11.3	58.4
121	Pioneer 3751	120	220	16.2	57	11.0	51.9
121	Pioneer 3941	120	169	15.1	59	9.1	48.4
121	Pioneer 3394	160	234	18.0	59	12.5	57.6
121	Pioneer 3751	160	220	16.4	57	10.2	50.9
121	Pioneer 3941	160	158	14.9	59	8.8	48.0
121	Pioneer 3394	200	238	18.3	59	11.7	57.7
121	Pioneer 3751	200	219	16.2	57	10.9	50.9
121	Pioneer 3941	200	160	15.0	59	8.4	46.8
152	Pioneer 3751	0	210	22.3	56	10.1	64.4
152	Pioneer 3941	0	167	18.8	57	9.4	60.4
152	Pioneer 3751	40	204	22.4	56	9.2	65.2
152	Pioneer 3941	40	183	19.5	58	8.9	56.6
152	Pioneer 3751	80	211	24.0	56	9.4	64.5
152	Pioneer 3941	80	181	19.3	58	10.3	57.1
152	Pioneer 3751	120	207	22.5	56	9.9	64.5
152	Pioneer 3941	120	202	18.7	59	9.1	59.4
152	Pioneer 3751	160	205	23.2	56	10.1	66.7
152	Pioneer 3941	160	175	19.7	58	9.2	61.5
152	Pioneer 3751	200	217	22.3	55	9.3	65.7
152	Pioneer 3941	200	175	18.8	58	10.1	60.0
161	Pioneer 3751	0	172	26.0	54	9.3	62.9
161	Pioneer 3941	0	176	22.2	56	8.2	53.3
161	Pioneer 3751	40	176	25.7	54	9.5	62.7
161	Pioneer 3941	40	169	21.6	57	7.6	58.0
161	Pioneer 3751	80	191	26.1	54	9.1	61.2
161	Pioneer 3941	80	173	22.1	56	8.0	56.7
161	Pioneer 3751	120	190	25.7	55	9.0	61.6
161	Pioneer 3941	120	177	21.5	56	7.9	56.6
161	Pioneer 3751	160	179	26.5	54	8.5	63.3

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