

## FIELD EXPERIMENT HISTORY

**Title:** Silage Date of Planting by Hybrid Study.

**Year:** 1994

**Personnel:** J.G. Lauer, K.D. Hudelson

**Location:** Arlington Research Station, Arlington, WI

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### FIELD INFORMATION

Field: 427

Soil Type: Plano Silt Loam

Soil Test Results: Date: Nov. 1993    pH: 6.5    P(ppm): 72    K(ppm): 195    O.M.(%): 4.0

Fertilizer Applied: (lbs/a): 100 N                      Analysis: 34-0-0 (preplant)  
(lbs/a): 150 Total                      Analysis: 6-24-24 (starter)

Tillage Operations: No-Till following Soybean

Previous Crop: Soybean

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### EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split plot

Replicates: 3

Variables: 4 Planting Dates  
3 Hybrids

Plot Size: Planted: 5' (2 rows) by 25'  
Harvested: 5' (2 rows) by 22'  
Row Spacing: 30"  
Planting Rate: 28,000 seeds/a

Hybrids: Pioneer 3417  
Pioneer 3751  
Pioneer 3921

Planting: May 11  
May 31  
June 22  
July 11  
Equipment: 4-row Kinze plot planter

Harvesting: Hybrids harvested at .5 to .75 Milk Line or at Frost  
Equipment: Hand harvest

	<u>Material</u>	<u>Rate/A</u>	<u>Method</u>
Herbicides/ Weed Control:	Bladex 4L/Lasso	2qt/2qt	preplant
Insecticides:	Asana	10 oz	post

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Results: Table C-13.

**Table C-13. Silage Date of Planting by Hybrid Study.  
Arlington, WI 1994.**

Date of Planting	Hybrid	Kernel Harvest Stage§	Final Stand	Moisture			Yield		
				Whole Plant	Stover	Grain	Whole Plant	Stover	Grain
			plants/a	%			tons DM/a		
May 11			25520	57.6	78.1	36.0	7.6	2.2	5.4
May 31			28952	58.8	80.1	40.7	7.5	2.3	5.2
June 22			28241	67.6	81.3	-	3.1	1.2	-
July 11			26582	76.2	82.4	-	2.5	1.5	-
	Pioneer 3417		26796	66.8	81.1	38.8	5.8	2.2	5.4
	Pioneer 3751		27667	64.4	80.5	42.1	5.3	1.6	5.8
	Pioneer 3921		27441	63.6	79.7	34.2	4.6	1.6	4.7
May 11	Pioneer 3417	0.6 ML	25080	62.4	82.4	40.9	8.2	2.4	5.9
May 31	Pioneer 3417	0.67ML†	27456	54.9	78.3	36.7	7.4	2.3	5.0
June 22	Pioneer 3417	Early Dent†	27192	71.3	81.0	-	4.8	2.4	-
July 11	Pioneer 3417	Blister†	27456	78.5	82.4	-	2.7	1.9	-
May 11	Pioneer 3751	0.75 ML	24288	58.2	79.1	37.6	7.8	2.1	5.7
May 31	Pioneer 3751	0.5 ML	30360	58.0	79.8	46.5	8.3	2.5	5.8
June 22	Pioneer 3751	Early Dent†	29075	64.9	79.9	-	2.6	0.6	-
July 11	Pioneer 3751	Blister†	26945	76.4	83.1	-	2.2	1.3	-
May 11	Pioneer 3921	Black Layer	27192	52.1	72.6	29.6	6.6	2.0	4.6
May 31	Pioneer 3921	0.6 ML	29040	63.5	82.1	38.8	6.9	2.1	4.8
June 22	Pioneer 3921	Early Dent†	28564	66.0	83.9	-	1.3	0.5	-
July 11	Pioneer 3921	Soft Dough†	25344	73.7	81.5	-	2.4	1.5	-
Mean			27297	65.0	80.4	38.3	5.2	1.8	5.3
<b>Probability (%)</b>									
Date of Planting (DOP)			2.0	< 0.1	29.0	6.7	< 0.1	15.7	> 50
Hybrid (H)			44.8	14.3	31.7	< 0.1	< 0.1	3.3	0.7
DOP x H			19.0	1.4	8.2	< 0.1	1.1	21.4	13.1
<b>LSD (0.10)</b>									
Date of Planting (DOP)			1591	2.3	NS	3.7	0.7	NS	NS
Hybrid (H)			NS	NS	NS	1.6	0.5	0.4	0.5
<b>CV %</b>			6.7	5.6	4.0	3.9	13.8	33.1	8.2

**Table C-29. 1994 Band Spray/Zone Tillage Trial.  
Lancaster Research Station, Lancaster, WI**

Tillage Treatment	Herbicide Treatment	Days to 50% Emerg.	05/04/94						Leaf Stage 06/01/94			Days To 50% Silk	Grain Moist %	Grain Yield bu/a	
			Gravimetric Moisture		Volumetric Moisture		Bulk Density		Plants per acre	Number of collars	Hahn Stage				Height 06/21/94 in.
			in row %	bet.row %	in row %	bet.row %	in row g/cc	bet.row g/cc							
Zone Tillage		14.4	23.2	23.2	38.3	45.3	1.69	1.84	32283	3.2	4.5	41.3	76.2	23.9	198.7
No Tillage		14.6	22.8	23.0	39.6	43.3	1.74	1.89	31677	3.1	4.3	40.9	76.3	23.6	193.5
	Fall Band	13.6	22.3	24.3	36.9	48.8	1.67	1.85	31799	3.2	4.5	41.0	75.9	23.6	199.8
	Fall Broadcast	13.7	23.2	21.8	39.0	40.4	1.75	1.86	32743	3.4	4.7	43.5	76.0	23.0	198.1
	Spring Broadcast	16.3	23.6	23.2	40.8	43.7	1.73	1.89	31398	2.9	4.0	38.8	76.8	24.6	190.5
Zone Tillage	Fall Band	13.5	21.8	24.4	35.8	52.6	1.65	1.82	32089	3.2	4.5	41.0	75.8	23.9	204.4
Zone Tillage	Fall Broadcast	14.3	24.4	22.1	40.2	40.7	1.77	1.86	32380	3.3	4.7	42.4	76.2	23.3	195.2
Zone Tillage	Spring Broadcast	15.3	23.5	23.1	38.8	42.6	1.66	1.85	32380	3.0	4.2	40.7	76.5	24.5	196.6
No Tillage	Fall Band	13.7	22.8	24.2	38.1	45.0	1.68	1.87	31509	3.2	4.4	41.1	76.0	23.4	195.2
No Tillage	Fall Broadcast	13.0	22.0	21.5	37.9	40.1	1.73	1.87	33106	3.5	4.8	44.7	75.8	22.7	201.1
No Tillage	Spring Broadcast	17.2	23.7	23.2	42.8	44.8	1.81	1.93	30416	2.8	3.9	36.9	77.2	24.7	184.3
<b>Means</b>		14.5	23.0	23.1	38.9	43.0	1.72	1.87	31980	3.1	4.4	41.1	76.2	23.7	196.1
<b>Probability(%)</b>															
Tillage(T)		>50	>50	>50	19.7	21.6	7.6	31.2	>50	>50	>50	>50	>50	26.9	16.2
Herbicide(H)		<0.1	>50	0.8	2.0	<0.1	3.5	>50	>50	0.1	<0.1	<0.1	0.8	<0.1	10.0
T x H		<0.1	37.7	>50	4.8	2.8	2.9	>50	>50	>50	>50	3.1	26.2	>50	10.8
<b>LSD(0.10)</b>															
Tillage(T)		NS	NS	NS	NS	NS	0.04	NS	NS	NS	NS	NS	NS	NS	NS
Herbicide(H)		0.6	NS	1.2	2.1	0.9	0.06	NS	NS	0.2	0.3	1.9	0.5	0.5	7.6
<b>C.V.(%)</b>		5.6	10.7	6.0	6.2	2.4	3.6	6.0	7.5	10.1	8.8	6.5	1.0	3.0	5.5