

FIELD EXPERIMENT HISTORY

Title: Influence of Plot Size on BMR Corn Silage Yield and Quality
Experiment: 01Silage Tech **Trial ID:** 3187 **Year:** 2008
Personnel: J.G. Lauer, K.D. Kohn and T.H. Diallo
Location: Arlington, WI **County:** Columbia
Supported By: Mycogen Seeds

Site Information

Field: ARS407 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/4 /08 **pH:** 6.1 **OM (%)** 2.9 **P (ppm)** 41 **K (ppm)** 110

Plot Management

Tillage Operations: Fall Chisel Field Cultivator Soil Finisher Cultivate

Fertilizer:		<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
	Preplant	46-0-0	138	N/A
	Starter	10-34-0	3.0 gal/A	5 /9 /08
	Post plant	46-0-0	50	6 /17/08
	Manure:	N/A	N/A	N/A

Herbicide: Dual II Mag 24 oz/A
 Hornet 4 oz/A
 Accent 0.33 oz/A

Insecticide: Force 3G 4.4 lb/A

Irrigation: None

Planting Date: 5/9/08 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 9/19/08 **Harvest Method:** New Holland 707 Plot Chopper

Experimental Design

Design: RCB **Replications:** 3

Plot Size Seeded: See Factors **Experiment Size:** 1.2 Acre

Harvest Plot Size: See Factors **Harvest Plant Density:** 32342 plants per acre

Factors/Treatments:

<u>Hybrid</u>		<u>Plot Size</u>	<u>Harvest Area</u>
Dekalb DKC57-79	Mycogen TMF2Q71	10' x 25'	5' x 23'
Mycogen F2568	Mycogen TMF2T49	5' x 25'	2.5' x 23'
Mycogen F2F610	Pioneer 35A30		
Mycogen F2F635	Pioneer 35F44		

Results: Table C-19.

**Table C-19. Influence of Plot Size on BMR Corn Silage Yield and Quality.
Arlington, WI - 2008.**

Plot type	Harvest size	Hybrid	Whole Plant												
			Dry Matter		Harvest plants/A	Plant height inches	Crude			<i>in vitro</i>		Milk per			
			yield tons/A	Moisture %			protein %	ADF %	NDF %	Digest %	NDFD %	Starch %	Ton lbs/T	Acre lbs/A	
		Dekalb DKC57-79	10.6	67.4	32599	116	208	7.4	22.1	41.7	80.2	52.6	34.3	3215	34262
		Mycogen F2F568	9.6	69.3	32031	110	213	7.4	23.8	45.9	82.7	62.3	27.3	3311	31855
		Mycogen F2F610	10.5	70.9	33072	121	215	7.5	27.8	51.0	80.8	62.4	21.8	3150	33096
		Mycogen F2F635	9.9	72.0	34256	108	214	7.8	24.4	46.6	82.6	62.7	26.1	3294	32710
		Mycogen TMF2Q71	11.6	67.0	32339	120	214	7.2	25.1	46.1	79.1	54.8	29.9	3114	36282
		Mycogen TMF2T49	12.0	62.6	34706	125	212	7.2	24.0	45.1	78.4	52.0	27.6	3069	36950
		Pioneer 35A30	11.1	66.5	29829	118	210	7.1	23.9	44.0	80.1	54.7	31.3	3187	35578
		Pioneer 35F44	9.8	67.7	29900	111	209	7.3	23.4	43.1	80.6	55.1	33.0	3225	31487
	1-Row		11.1	67.8	32327	115	212	7.3	24.5	45.8	80.4	57.0	28.4	3180	35283
	2-Row		10.2	68.0	32356	117	212	7.4	24.1	45.1	80.8	57.2	29.4	3211	32771
	1-Row	Dekalb DKC57-79	11.1	66.9	32670	114	208	7.3	21.9	41.4	80.4	52.6	34.7	3228	35886
	1-Row	Mycogen F2F568	10.1	69.1	32291	109	213	7.4	24.3	46.7	82.3	62.0	26.1	3279	33203
	1-Row	Mycogen F2F610	10.7	71.1	32670	119	215	7.4	27.9	51.3	80.6	62.2	21.5	3139	33618
	1-Row	Mycogen F2F635	10.3	71.6	33806	106	214	7.8	24.5	46.7	82.6	62.8	25.7	3292	33990
	1-Row	Mycogen TMF2Q71	12.1	66.8	32197	121	214	7.1	25.3	46.7	79.0	55.0	29.3	3102	37620
	1-Row	Mycogen TMF2T49	12.9	62.6	35416	124	212	7.3	24.4	45.7	77.8	51.5	26.6	3022	39064
	1-Row	Pioneer 35A30	11.5	66.3	29734	119	210	7.0	24.2	44.4	79.9	54.8	31.0	3175	36685
	1-Row	Pioneer 35F44	10.0	68.1	29829	110	209	7.2	23.7	43.7	80.4	55.1	32.5	3205	32202
	2-Row	Dekalb DKC57-79	10.2	67.8	32528	118	207	7.5	22.4	42.1	80.1	52.7	33.9	3202	32638
	2-Row	Mycogen F2F568	9.1	69.4	31770	112	213	7.5	23.3	45.1	83.2	62.6	28.5	3344	30506
	2-Row	Mycogen F2F610	10.3	70.8	33475	123	215	7.5	27.7	50.7	81.0	62.7	22.0	3162	32575
	2-Row	Mycogen F2F635	9.5	72.4	34706	109	214	7.8	24.3	46.6	82.6	62.6	26.5	3296	31429
	2-Row	Mycogen TMF2Q71	11.2	67.1	32481	118	214	7.3	24.8	45.6	79.2	54.5	30.5	3126	34944
	2-Row	Mycogen TMF2T49	11.2	62.5	33996	126	211	7.1	23.6	44.5	78.9	52.5	28.6	3117	34836
	2-Row	Pioneer 35A30	10.7	66.6	29924	118	210	7.2	23.6	43.5	80.2	54.6	31.6	3199	34470
	2-Row	Pioneer 35F44	9.5	67.4	29971	111	209	7.3	23.0	42.5	80.9	55.1	33.5	3245	30771
	2-Row		10.8	68.1	32220	116	212	7.4	24.1	45.2	80.8	57.3	29.1	3209	34498
	4-Row		10.5	67.7	32463	116	212	7.3	24.5	45.7	80.4	56.9	28.7	3183	33557
	2-Row	Dekalb DKC57-79	10.9	66.5	32623	115	208	7.4	21.2	40.4	81.0	52.9	35.8	3266	35738
	2-Row	Mycogen F2F568	9.7	69.4	31439	112	214	7.6	24.0	46.3	82.6	62.4	26.7	3302	32053
	2-Row	Mycogen F2F610	10.7	70.3	32907	123	216	7.3	27.3	50.4	81.1	62.5	22.2	3172	34130
	2-Row	Mycogen F2F635	9.7	73.2	34327	108	214	8.0	24.4	46.8	82.5	62.7	25.7	3286	31917
	2-Row	Mycogen TMF2Q71	11.5	67.8	32149	117	214	7.3	25.3	46.4	78.9	54.5	29.8	3100	35807
	2-Row	Mycogen TMF2T49	12.5	62.6	34280	124	211	7.3	23.5	44.3	79.0	52.7	28.1	3106	38771
	2-Row	Pioneer 35A30	11.2	67.2	30255	119	210	7.2	24.2	44.5	79.8	54.7	30.8	3170	35600
	2-Row	Pioneer 35F44	9.8	67.8	29782	109	209	7.3	22.9	42.6	81.3	56.0	33.5	3266	31969
	4-Row	Dekalb DKC57-79	10.3	68.2	32575	117	208	7.3	23.0	43.0	79.5	52.4	32.8	3164	32786
	4-Row	Mycogen F2F568	9.5	69.1	32623	109	213	7.3	23.6	45.5	82.8	62.2	27.8	3321	31656
	4-Row	Mycogen F2F610	10.2	71.5	33238	120	215	7.6	28.3	51.7	80.6	62.4	21.3	3129	32063
	4-Row	Mycogen F2F635	10.1	70.9	34185	107	214	7.7	24.3	46.5	82.7	62.7	26.5	3302	33503
	4-Row	Mycogen TMF2Q71	11.7	66.2	32528	122	214	7.1	24.9	45.9	79.3	55.0	30.0	3128	36757
	4-Row	Mycogen TMF2T49	11.6	62.5	35132	127	212	7.1	24.5	45.8	77.7	51.3	27.1	3032	35129
	4-Row	Pioneer 35A30	11.1	65.8	29403	118	210	7.1	23.6	43.5	80.3	54.7	31.8	3204	35556
	4-Row	Pioneer 35F44	9.7	67.7	30019	112	208	7.2	23.9	43.7	80.0	54.2	32.5	3184	31005
	2-Row	1-Row	11.2	68.1	32220	115	212	7.4	24.4	45.6	80.5	57.0	28.5	3187	35730
	2-Row	2-Row	10.3	68.1	32220	117	212	7.5	23.8	44.8	81.0	57.6	29.6	3230	33266
	4-Row	1-Row	11.0	67.6	32433	115	212	7.3	24.6	46.0	80.2	57.0	28.3	3173	34837
	4-Row	2-Row	10.1	67.9	32492	117	212	7.4	24.4	45.4	80.5	56.8	29.1	3193	32276

continued

