FIELD EXPERIMENT HISTORY

Title: **Cutting Height Effects on Corn Silage Yield and Quality**

Experiment: 15Harvest **Trial ID:** 3492 **Year:** 2011

Personnel: J.G. Lauer, K.D. Kohn and T. H. Diallo

Location: Arlington, WI **County:** Columbia

Supported By: HATCH

Site Information

Field: ARS408 **Previous Crop:** Corn **Soil Type:** Plano silt loam

Soil Test: **Date:** 11/01/11 **pH:** 6.6 **OM (%)** 3.6 **P (ppm)** 205 **K (ppm)** 66

Plot Management

Tillage Operations: Chisel Plow Field Cultivator Cultivated

Fertilizer:

	Analysis	Rate	Date
Preplant	46-0-0	325	N/A
Starter	10-23-30	3 gal/A	5 /23/11
Post plant	N/A	N/A	N/A
Manure:	N/A	N/A	

Herbicide: Dual II Mag 1.5 pt/A
Hornet 5.0 oz/A
Accent Q 1.0 oz/A

Insecticide: Force 3G 4.4 lbs/A

Irrigation: None

Planting Date: 5/23/11 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 9/15/11 **Harvest Method:** NH 707

Experimental Design

Design: RCB **Replications:** 4

Plot Size Seeded: 25' x 10" **Experiment Size:** 0.08 A

Harvest Plot Size: 23' x 2.5' **Harvest Plant Density:** 34943 **plants per acre**

Factors/Treatments:

Hybrid:	Cutting Height
Mycogen F2F622	6 inches
Pioneer 35F44	24 inches

Results: Table C-54.

Table C- 54. Cutting Height Effects on Corn Silage Yield and Quality.
Arlington, WI - 2011.

				Whole Plant												
Cutting		Dry Matter		Kernel	Harvest	KMR	SMR	VMR	Crude			*In Vitro*			Milk per	
Height	Hybrid	yield	moisture	milk	plants	0-5	0-5	0-10	protein	ADF	NDF	Digest	NDFD	Starch	Ton	Acre
		tons/A	%	%	plants/A				%	%	%	%	%	%	lbs/T	lbs/A
	Mycogen F2F622	8.3	57.7	61.3	35416	3.1	0.5	3.6	6.7	26.0	49.1	81.3	61.8	31.3	3225	26711
	Pioneer 35F44	9.2	59.2	55.6	34469	2.8	1.1	3.8	6.6	23.0	44.0	80.4	55.7	34.6	3226	29556
6 inches		9.3	60.2	56.9	35132	2.8	0.8	3.7	6.6	26.1	48.5	79.6	57.8	31.6	3140	29373
24 inches		8.1	56.8	60.0	34753	3.0	0.7	3.7	6.7	22.9	44.6	82.1	59.7	34.3	3311	26894
6 inches	Mycogen F2F622	9.0	59.0	57.5	35795	2.9	0.7	3.5	6.6	27.5	50.9	80.5	61.8	30.4	3167	28480
24 inches	Mycogen F2F622	7.6	56.5	65.0	35037	3.3	0.4	3.6	6.7	24.4	47.2	82.0	61.9	32.2	3284	24942
6 inches	Pioneer 35F44	9.7	61.4	56.3	34469	2.8	1.0	3.8	6.6	24.7	46.1	78.7	53.9	32.7	3114	30267
24 inches	Pioneer 35F44	8.6	57.0	55.0	34469	2.8	1.1	3.9	6.6	21.3	41.9	82.1	57.5	36.4	3339	28845
Mean		8.7	58.5	58.4	34943	2.9	0.8	3.7	6.7	24.5	46.5	80.9	58.8	32.9	3226	28133
Probability(%)																
Cutting Height ('C)		0.3	1.8	39.4	52.5	39.4	63.8	85.0	79.1	0.2	0.6	0.3	4.6	7.2	0.3	9.2
Hybrid (H)		2.0	24.4	14.2	13.3	14.2	2.5	37.6	83.1	0.4	0.1	19.3	0.0	3.9	98.1	5.9
C x H		60.4	42.8	24.2	52.5	24.2	35.5	95.0	69.5	84.8	86.2	14.7	5.9	50.7	22.5	44.1
LSD (0.10)																
Cutting Height ('C)		0.6	2.2	NS	NS	NS	NS	NS	NS	1.4	2.0	1.1	1.5	2.5	76	2408
Hybrid (H)		0.6	NS	NS	NS	NS	0.4	NS	NS	1.4	2.0	NS	1.5	2.5	NS	2408
C x H		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.1	NS	NS	NS