FIELD EXPERIMENT HISTORY

Title: **Sweet Corn Stand Reduction**

Experiment: 16Sweet **Trial ID:** 6242 **Year:** 2017

Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.

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

Supported By: HATCH, National Crop Insurance Services.

Site Information

Field: ARS 375 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam

Soil Test: Date: 11/28/2017 **pH:** 7.1 **OM (%) :** 3 **P (ppm) :** 26 **K (ppm) :** 119

Plot Management

Tillage Operations: Field Cultivator 2x

Fertilizer:

Preplant Analysis: 46-0-0	**Product Rate lbs/A** 225	**Date:** 05/10/2017
Starter Analysis: N/A	**Product Rate lbs/A** N/A	**Date:** N/A
Post plant Analysis N/A	**Product Rate lbs/A** N/A	**Date:** N/A
Manure: N/A	**Product Rate lbs/A** N/A	**Date:** N/A

Herbicide:

Medal II EC 24 oz/A 5/31/2017
Explorer 5.0 oz/A 5/31/2017
Simazine 4L 16 oz/A 5/31/2017
Laudis 3.0 oz/A 21/06/2017

Insecticide: N/A

Irrigation: N/A

Planting Date: 5/26/2017 **Planting Depth:** 1.5" **Row Width** 30"

Target Plant Density: 27000 plants per acre **Planting Method:** JD 1700 w RTK

Harvest Date: 8/23/2017 **Harvest Method:** Hand Harvest

Experimental Design

Design: RCB 3 x 4 Factorial

Plot Size Seeded: 10' x 25' **Replications:** 4 **Experiment Size:**0.5A

Harvest Plot Size: 5' x 17.4' **Harvest Plant Density: See Factors**

Factors/Treatments:

Stand reduction stage:

1) 5 leaf stage (approximately V3 stage by collar method)
2) 10 leaf stage (approximately V8 stage by collar method)
3) 15 leaf stage (approximately V13 stage by collar method)

Amount of stand reduction:

1) 0% or check
2) 25%
3) 50%
4) 75%

Results: Table 1716-01

Table:1716-01. Influence of Sweet Corn Stand Reduction on Yield.
Arlington, WI - 2017.

Thin time	Thin percent	Main Unhusked ear yield	Secondary Unhusked ear yield	Total Unhusked ear yield	Total Husked ear yield	Cut grain moisture	Fresh grain yield	Dry grain yield	Tiller		Silking day of year	Plant hight	Harvest density
									number	hight			
	%	T/A	T/A	T/A	T/A	%	T/A	T/A	no.	in	DOY	in	plants/A
V3		5.3	0.7	6.0	4.4	81.5	2.5	0.5	8	43	213	69.5	16250
V8		5.2	0.6	5.9	4.6	80.8	2.7	0.5	3	43	213	68.4	15813
V13		4.7	0.6	5.3	4.0	81.4	2.2	0.4	4	33	213	67.6	15375
	0	5.7	0.6	6.3	5.7	81.4	3.2	0.6	2	39	213	71.0	23250
	25	5.2	0.9	6.0	5.4	81.2	3.1	0.6	5	42	213	69.3	19083
	50	5.2	0.7	5.8	3.8	81.4	2.2	0.4	4	36	213	66.7	12833
	75	4.4	0.4	4.7	2.4	81.0	1.4	0.3	6	43	213	66.9	8083
V3	0	4.9	0.6	5.5	5.5	80.7	3.1	0.6	3	40	213	69.6	22750
V3	25	5.9	0.8	6.8	5.4	81.7	3.2	0.6	8	38	214	70.8	19250
V3	50	5.3	0.7	6.0	3.9	81.7	2.3	0.4	8	40	214	68.8	13500
V3	75	5.3	0.6	5.8	2.7	81.7	1.5	0.3	12	55	212	68.8	9500
V8	0	6.8	0.6	7.3	5.9	81.6	3.4	0.6	2	33	213	74.5	22250
V8	25	5.1	0.9	6.0	5.6	80.8	3.3	0.6	4	51	213	68.0	19250
V8	50	5.5	0.7	6.2	4.2	80.1	2.5	0.5	3	44	213	65.0	13500
V8	75	3.6	0.3	3.9	2.6	80.6	1.5	0.3	3	44	213	66.0	8250
V13	0	5.4	0.6	6.1	5.6	81.8	2.9	0.5	3	46	213	69.0	24750
V13	25	4.4	0.9	5.3	5.0	81.0	3.0	0.6	4	36	213	69.0	18750
V13	50	4.7	0.7	5.3	3.2	82.5	1.9	0.3	3	23	212	66.3	11500
V13	75	4.2	0.1	4.4	2.0	80.5	1.2	0.2	5	29	213	66.0	6500
Mean		5.1	0.6	5.7	4.3	81.2	2.5	0.5	5	40	213	68.5	15813
Probability(%)													
Thin time (T)		30.7	52.9	25.1	2.5	3.2	2.5	2.0	0.0	10.1	79.1	45.2	42.7
Thin percent (P)		9.8	0.0	3.0	0.0	41.9	0.0	0.0	0.1	65.2	94.4	5.1	0.0
T x P		18.2	50.3	19.0	77.5	0.3	99.4	95.4	1.6	12.6	65.0	44.1	13.5
LSD (0.10)													
Thin time (T)		NS	NS	NS	0.4	0.5	0.3	0.1	1	9	NS	NS	NS
Thin percent (P)		0.9	0.2	0.9	0.4	NS	0.3	0.1	1	10	NS	2.9	1294
T x P		NS	NS	NS	NS	0.9	NS	NS	3	NS	NS	NS	NS