

FIELD EXPERIMENT HISTORY

Title: High Yield Systems for Corn and Soybean.
Experiment: 19Systems **Trial ID:** 6057 **Year:** 2016
Personnel: Joe Lauer, Thierno Diallo, Kent Kohn, Shawn Conely, John Gaska
Location: Arlington, WI **County:** Columbia
Supported By: BASF

Site Information

Field: ARS395 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/1 /14 **pH:** 6.1 **OM (%)** 2.8 **P (ppm)** 23 **K (ppm)** 89

Plot Management

Tillage Operations:

		<u>Analysis:</u>	<u>Rate lbs/</u>	<u>Date:</u>
Fertilizer:	Preplant :	See factors	N/A	N/A
	Starter :	See factors	N/A	N/A
	Post plant :	See factors	N/A	N/A
	Manure:	N/A	N/A	N/A

Herbicide: Verdict 13 oz/A 5/23/16

Insecticide: None

Irrigation: None

Hybrid: Pioneer P0157 AMX

Planting Date: 05/13/15 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: Factor plants per acre **Planting Method:** RTK, JD1700

Harvest Date: 10/17/16 **Harvest Method:** MF 8 XP Combine

Experimental Design

Design: RCB Factorial

Replications: 4

Plot Size Seeded: 75' x 20'

Experiment Size: 1.1 Acre

Harvest Plot Size: 10' x 75'

Harvest Plant Density: 32042 plants per acre

Continued.

(Continued)

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Application Dates:

Preplant Applications - May 18
 V6/V8 Applications - June 24
 VT/R1 Application - July 21

Factors/Treatments:

- 1) No Nitrogen Check
 Plant Population (PD) 32,000 plants/A
 Triple Superphosphate 200lbs/A (Actual: 90 lbs P2O5) lbs/A Preplant
 Potash 200lbs/A (Actual: 120 lbs K2O) lbs/A Preplant
 - 2) "Standard" Program
 Plant Population (PD) 32,000 plants/A
 Local Standard N program (all preplant) University Rec. 200lbs/A Preplant
 Diammonium phosphate (DAP) 200lbs/A (Actual: 36 lbs N, 92 lbs P2O5) lbs/A Preplant
 Potash (K) 200 lbs/A Preplant
 - 3) Plant Population (PD) 38,000 plants/A
 200 lbs/A Nitrogen with Limus
 Diammonium phosphate (DAP) 200 lbs/A Preplant
 Potash (K) 200 lbs/A Preplant
 - 4) Plant Population (PD) 38,000 plants/A
 200 lbs/A Nitrogen with Limus
 MESZ (12-40-0-10S-1Zn) 200lbs/A (Actual: 24 lbs N, 80 lbs P2O5, 20 lbs S, 2 lbs Zn) lbs/A Preplant
 Aspire (0-0-58-0.5B) 100-150lbs/A (Actual in 100 lbs: 58 lbs K2O5, 0.5 lbs B) lbs/A Preplant
 - 5) Plant Population (PD) 38,000 plants/A
 200 lbs/A Nitrogen with Limus
 MESZ (12-40-0-10S-1Zn) 200lbs/A (Actual: 24 lbs N, 80 lbs P2O5, 20 lbs S, 2 lbs Zn) lbs/A Preplant
 Aspire (0-0-58-0.5B) 100-150lbs/A (Actual in 100 lbs: 58 lbs K2O5, 0.5 lbs B) lbs/A Preplant
 Priaxor 4 oz/A V6-V8
 Headline AMP 10 oz/A VT/R1
 - 6) Complete Package
 Plant Population 38,000 plants/A
 200 lbs/A Nitrogen Program with Limus
 MESZ (12-40-0-10S-1Zn) 200 (Actual: 24 lbs N, 80 lbs P2O5, 20 lbs S, 2 lbs Zn) lbs/A Preplant
 Aspire (0-0-58-0.5B) 100-150 (Actual in 100 lbs: 58 lbs K2O5, 0.5 lbs B) lbs/A Preplant
 Headline 6 oz/A In-furrow
 Priaxor 4 oz/A V6-V8
 Librel Micronutrient V6-V8
 Bioforge V6-V8
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Results:Table: 1619-03.

**Table: 1619-03. High Yield Systems for Corn and Soybean.
Arlington, WI - 2016.**

Treatment (Population + N + P + K + Fungicides)	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Lodged			V2 Vigor 0-5	Nitrogen content %	Harvest density plants/A	*AGI \$3.44/bu \$
				Total %	Stalk %	Root %				
1 32K + 0 N + 200 TSP + 200 K	156	22.4	53	0	0	0	2.8	1.0	28250	481
2 32K + 160 N + 200 DAP + 200 K	230	22.8	53	0	0	0	3.0	1.3	30000	706
3 38K + 160 N + 200 DAP + 200 K	239	23.1	53	0	0	0	3.0	1.3	33250	731
4 38K + 160 N Limus + 200 MESZ + 150 Aspire	246	23.1	53	1	1	0	3.0	1.3	33250	753
5 38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline + Priaxor + Headline AMP	252	23.3	53	0	0	0	3.0	1.3	33500	769
6 38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline +Priaxor +Headline AMP + B-Moly	261	23.2	53	1	1	0	3.0	1.4	34000	799
Mean	231	23.0	53	0	0	0	3.0	1.3	32042	706
<u>Probability(%)</u>										
Treatment (T)	0.0	24.3	18.6	56.6	56.6	100	45.1	0.0	0.1	0.0
<u>LSD(0.10)</u>										
Treatment (T)	15	NS	NS	NS	NS	NS	NS	0.1	2197	44

*AGI: Adjusted Gross Income