

FIELD EXPERIMENT HISTORY

Title: High Yield Systems for Corn and Soybean.
Experiment: 19Systems **Trial ID:** 5796 **Year:** 2014
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo, 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:** 10/1 /14 **pH:** 6.1 **OM (%)** 2.8 **P (ppm)** 23 **K (ppm)** 89

Plot Management

Tillage Operations: Field Cultivator

		<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:	Preplant :	Factor	Factor	5 /22/14
	Starter :	None	N/A	N/A
	Post plant :	None	N/A	N/A

Manure: None

Herbicide: Roundup PowerMax @ 32 oz/A **Insecticide:** None
 Armezon @ 0.75 oz/A

Irrigation: None **Hybrid:** Pioneer P0062AMX

Planting Date: 5/23/14 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: Factor plants per acre **Planting Method:** John Deere 1700

Harvest Date: 11/5/14 **Harvest Method:** Massey8XP

Experimental Design

Design: RCB Factorial **Replications:** 4
Plot Size Seeded: 75' x 25' **Experiment Size:** 1.1 Acre
Harvest Plot Size: 75' x 10' **Harvest Plant Density:** 34958 plants per acre

Continued.

(Continued)

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Application Dates:

Preplant Applications - May 22
 V6/V8 Applications - June 27
 VT/R1 Application - July 24

Factors/Treatments:

- 1) No Nitrogen Check
 Plant Population 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 32,000 plants/A
 Local Standard N program (all preplant) University Rec. 200lbs/A Preplant
 Diammonium phosphate 200lbs/A (Actual: 36 lbs N, 92 lbs P2O5) lbs/A Preplant
 Potash 200 lbs/A Preplant
- 3) Plant Population 38,000 plants/A
 200 lbs/A Nitrogen with Limus
 Diammonium phosphate 200 lbs/A Preplant
 Potash 200 lbs/A Preplant
- 4) Plant Population 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 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

Results:Table: 1419-03.

**Table: 1419-03. High Yield Systems for Corn and Soybean.
Arlington, WI - 2014.**

Treatment (Population + N + P + K + Fungicides)	V2 Vigor	Harvest density	Grain yield	Grain moisture	Test weight	Lodged			Nitrogen content
						Total	Stalk	Root	
	0-5	plants/A	bu/A	%	lb/bu	%	%	%	%
1. 32K + 0 N + 200 TSP + 200 K	2.8	29250	124	20.8	52	4	4	0	0.97
2. 32K + 160 N + 200 DAP + 200 K	3.0	31000	200	20.8	52	1	1	0	1.23
3. 38K + 160 N + 200 DAP + 200 K	3.0	37000	203	20.4	52	3	1	2	1.25
4. 38K + 160 N Limus + 200 MESZ + 150 Aspire	3.0	38000	206	20.3	52	5	5	0	1.23
5. 38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline + Priaxor + Headline AMP	3.0	37250	215	21.3	53	0	0	0	1.19
6. 38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline + Priaxor + Headline AMP + Micro + Bioforge + Micro	3.0	37250	219	21.0	52	0	0	0	1.20
Mean	3.0	34958	194	20.7	52	2	2	0	1.18
Probability(%)									
Treatment (T)	45.1	0.0	0.0	80.5	97.4	17.9	13.6	45.1	0.0
LSD(0.10)									
Treatment (T)	NS	2518	16	NS	NS	NS	NS	NS	0.07