FIELD EXPERIMENT HISTORY

Title: **High Yield Systems for Corn and Soybean.**

Experiment: 19Systems **Trial ID:** 5964 **Year:** 2015

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:** 11/1 /14 **pH:** 6.1 **OM (%)** 2.8 **P (ppm)** 23 **K (ppm)** 89

Plot Management

Tillage Operations:

		Analysis:	Rate lbs/A:	Date:
Fertilizer:	**Preplant :**	Factor	Factor	Factor
	Starter :	N/A	N/A	N/A
	Post plant :	N/A	N/A	N/A
	Manure:	N/A	N/A	N/A

Herbicide: Satatus 2.5 oz/A 6/04/15
Roundup Pmax 28 oz/A 6/04/15

Insecticide: None

Irrigation: None **Hybrid:** Pioneer P0062AMX

Planting Date: 05/14/15 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/09/15 **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:** 35375 plants per acre

Continued.

(Continued)

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Application Dates:

Preplant Applications - May 17
V6/V8 Applications - June 16
VT/R1 Application - July 27

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: 1519-03.

Table: 1519-03. High Yield Systems for Corn and Soybean. Arlington, WI - 2015.

Treatment (Population + N + P + K + Fungicides)	Grain yield	Grain moisture	Test weight	Lodged			*AGI	Harvest density	V2 Vigor	Nitrogen content
				Total	Stalk	Root	$3.44/bu			
	bu/A	%	lb/bu	%	%	%	$	plants/A	0-5	%
1. 32K + 0 N + 200 TSP + 200 K	141	24.6	52	1	0	1	427	32000	2.8	1.2
2. 32K + 160 N + 200 DAP + 200 K	225	25.3	52	1	1	0	678	31000	2.8	1.4
3. 38K + 160 N + 200 DAP + 200 K	233	25.4	52	1	1	0	703	38000	3.0	1.4
4. 38K + 160 N Limus + 200 MESZ + 150 Aspire	241	25.5	52	1	1	0	725	37750	2.8	1.4
5. 38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline + Priaxor + Headline AMP	256	26.2	52	0	0	0	766	36250	3.0	1.4
6. 38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline +Priaxor +Headline AMP + B-Moly	258	26.0	52	1	1	0	774	37250	3.0	1.5
Mean	226	25.5	52	1	1	0	679	35375	2.9	1.4
Probability(%)										
Treatment (T)	0.0	2.3	80.8	82.8	59.7	45.1	0.0	0.0	68.1	0.0
LSD(0.10)										
Treatment (T)	9	1	NS	NS	NS	NS	24	2134	NS	0.1

*AGI: Adjusted Gross Income