

## FIELD EXPERIMENT HISTORY

**Title:** High Yield Systems for Corn and Soybean.  
**Experiment:** 19Systems **Trial ID:** 6171 **Year:** 2017  
**Personnel:** Joe Lauer, Thierno Diallo, Kent Kohn, Shawn Conely, John Gaska  
**Location:** Arlington, WI **County:** Columbia  
**Supported By:** HATCH

### Site Information

**Field:** ARS395 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam  
**Soil Test:** **Date:** 11/1 /2014 **pH:** 6.1 **OM (%)** 2.8 **P (ppm)** 23 **K (ppm)** 89

### Plot Management

**Tillage Operations:** No Till

<b>Fertilizer:</b>	<b>Preplant :</b>	<u><b>Analysis:</b></u>	<u><b>Rate lbs/</b></u>	<u><b>Date:</b></u>
	<b>Starter :</b>	46-0-0	410	4/25/2017
	<b>Post plant :</b>	See factors	N/A	N/A
		See factors	N/A	N/A
	<b>Manure:</b>	N/A	N/A	N/A

**Herbicide:** Verdict 13 oz/A 5/23/2017

**Insecticide:** None

**Irrigation:** None

**Hybrid:** DKC52-68 RIB

**Planting Date:** 05/19/2017 **Planting Depth:** 1.5" **Row Width:** 30"

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

**Harvest Date:** 11/1/2017 **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:** 31250 plants per acre

Continued.

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**Application Dates:****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

**Results:Table: 1719-03.**

**Table: 1719-03. High Yield Systems for Corn and Soybean.  
Arlington, WI - 2017.**

Treatment	(Population + N + P + K + Fungicides)	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Lodged			Harvest density plants/A	*AGI \$3.44/bu \$
					Total %	Stalk %	Root %		
1	32K + 0 N + 200 TSP + 200 K	238	28.7	51	5	4	1	31000	702
2	32K + 160 N + 200 DAP + 200 K	241	28.5	51	8	8	0	31500	712
3	38K + 160 N + 200 DAP + 200 K	238	29.1	51	10	9	2	31500	698
4	38K + 160 N Limus + 200 MESZ + 150 Aspire	228	28.5	50	7	7	0	31500	671
5	38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline + Priaxor + Headline AMP	249	28.3	51	14	11	3	30000	735
6	38K + 160 N Limus + 200 MESZ + 150 Aspire + Headline +Priaxor +Headline AMP + B-Moly	252	27.6	51	7	6	1	32000	747
Mean		241	28.5	51	9	8	1	31250	711
<b>Probability(%)</b>									
Treatment (T)		35.9	66.9	72.8	58.2	84.0	29	43.2	36.1
<b>LSD(0.10)</b>									
Treatment (T)		NS	NS	NS	NS	NS	NS	NS	NS

\*AGI: Adjusted Gross Income