

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6269 **Year:** 2018

Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.

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

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: ARS411 **Previous Crop:** Alfalfa **Soil Type:** Plano Silt Loam

Soil Test: Date: 11/12/18 **pH:** 6.2 **OM (%)** 3.5 **P (ppm)** 37 **K (ppm)** 106

Plot Management

Tillage Operations: Field Cultivator Disk Chisel

Fertilizer:	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	46-0-0	250 lbs/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/1/2018 5/1/2018
Post plant	N/A	N/A	N/A
Manure:	Dairy	13235 gal/A	N/A

Herbicide: Resicore 80.0 oz/A **Insecticide:** Force 3G 4.4 lbs/A
Simazine 4L 16.0 oz//A

Irrigation: None **Hybrid:** Factor

Planting Date: 5/1/18 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/09/18 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25' **Experiment Size:** 0.28 Acre

Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 31335 plants per acre

Factors/Treatments:

Hybrid (RM):

- | | |
|------------------------------|---------------------------------|
| 1) Jung 31DP308 (82) | 9) DuPont Pioneer P9998AMT (99) |
| 2) Dekalb DKC31-10 (81) | 10) Dekalb DKC52-68RIB (102) |
| 3) Dairyland DS9686 (86) | 11) NuTech 5F-504 (104) |
| 4) Munson 4877-3010 (88) | 12) Renk RK717SSTX (105) |
| 5) Dekalb DKC39-27RIB (89) | 13) Nu-Tech 5F-510 (109) |
| 6) NK Brand N27P-3110A (92) | 14) NK Brand N66V-3120EZ1 (109) |
| 7) Jung 46SS427RIB (96) | 15) Dekalb DKC62-20RIB (112) |
| 8) NK Brand N40L-3000GT (98) | 16) Dekalb DKC65-95RIB (115) |

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-01

**Table 1812 - 01. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Arlington, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$3.44 \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	UTC		254	26.0	56.7	31163	820	6.7	1.0	5.7	99	--	--	--	--	--
	Pop-up		248	26.0	57.1	31139	800	8.2	0.7	7.5	100	--	--	--	--	--
	Starter		254	27.1	56.2	31763	813	4.7	0.5	4.2	104	--	--	--	--	--
		Dairyland DS9686	252	22.6	58.2	32070	831	2.8	0.4	2.4	95	--	--	--	--	--
		Dekalb DKC31-10	207	21.0	58.4	31481	689	1.1	0.3	0.8	92	--	--	--	--	--
		Dekalb DKC39-27RIB	233	22.0	56.8	30976	771	7.4	1.1	6.4	93	--	--	--	--	--
		Dekalb DKC52-68RIB	268	27.9	54.4	31776	855	1.9	0.1	1.7	104	--	--	--	--	--
		Dekalb DKC62-20RIB	281	33.7	55.6	32070	864	2.3	0.9	1.4	106	--	--	--	--	--
		Dekalb DKC65-95RIB	261	35.4	57.6	31481	796	2.5	0.8	1.7	106	--	--	--	--	--
		DuPont Pioneer P9998AMT	267	27.0	56.9	31565	858	5.4	0.0	5.4	100	--	--	--	--	--
		Jung 31DP308	210	21.7	58.7	30850	698	0.6	0.4	0.1	94	--	--	--	--	--
		Jung 46SS427RIB	268	23.1	55.0	30723	880	3.4	0.1	3.3	99	--	--	--	--	--
		Munson 4877-3010	249	21.8	57.8	31776	824	2.8	0.4	2.4	100	--	--	--	--	--
		NK Brand N27P-3110A	252	22.9	59.4	30934	828	4.8	1.2	3.6	98	--	--	--	--	--
		NK Brand N40L-3000GT	239	24.5	55.5	30976	778	12.6	0.7	11.9	99	--	--	--	--	--
		NK Brand N66V-3120EZ1	252	32.1	55.0	31397	785	21.5	0.4	21.1	112	--	--	--	--	--
		Nu-Tech 5F-510	261	31.1	57.0	31355	817	19.8	4.0	15.8	107	--	--	--	--	--
		NuTech 5F-504	267	27.9	55.3	31102	851	11.0	0.3	10.8	110	--	--	--	--	--
		Renk RK717SSTX	266	26.7	55.2	31144	856	4.9	0.7	4.3	98	--	--	--	--	--
1	UTC	Jung 31DP308	215	21.2	59.4	30934	715	0.0	0.0	0.0	91	4.8	0.6	4.2	0.2	3.5
2	UTC	Dekalb DKC31-10	207	23.2	59.6	31944	679	0.4	0.4	0.0	91	3.8	0.7	4.9	0.3	4.4
3	UTC	Dairyland DS9686	260	21.9	58.5	32323	862	1.2	0.0	1.2	95	4.0	0.5	5.0	0.2	3.5
4	UTC	Munson 4877-3010	245	21.3	57.8	31818	815	1.2	0.0	1.2	97	3.9	0.5	4.8	0.2	2.9
5	UTC	Dekalb DKC39-27RIB	240	21.3	57.0	31060	798	8.1	2.4	5.7	92	4.2	0.6	3.7	0.2	2.7
6	UTC	NK Brand N27P-3110A	248	23.3	60.6	30808	816	6.1	1.6	4.5	94	4.6	0.6	4.7	0.2	3.5
7	UTC	Jung 46SS427RIB	256	22.7	52.4	30050	844	2.5	0.0	2.5	97	4.4	0.5	3.7	0.2	3.5
8	UTC	NK Brand N40L-3000GT	249	23.9	56.1	31186	815	11.3	1.7	9.6	95	4.3	0.5	4.0	0.2	3.1
9	UTC	DuPont Pioneer P9998AMT	270	26.5	56.7	30681	869	11.9	0.0	11.9	95	4.7	0.6	3.9	0.2	3.2
10	UTC	Dekalb DKC52-68RIB	286	27.2	54.8	31565	919	2.8	0.4	2.4	101	4.4	0.6	4.0	0.2	3.7
11	UTC	NuTech 5F-504	270	28.1	55.9	30303	861	15.5	0.0	15.5	110	4.2	0.5	4.5	0.2	2.9
12	UTC	Renk RK717SSTX	268	25.9	53.7	30808	866	2.5	0.8	1.6	97	4.2	0.6	4.6	0.2	3.3
13	UTC	Nu-Tech 5F-510	260	30.5	56.4	30555	817	17.6	5.0	12.7	107	4.5	0.6	4.6	0.2	3.0
14	UTC	NK Brand N66V-3120EZ1	249	31.4	53.9	31186	776	22.7	0.8	21.9	110	4.2	0.6	4.2	0.2	4.3
15	UTC	Dekalb DKC62-20RIB	276	34.1	55.5	32702	846	2.7	1.5	1.2	107	4.3	0.6	4.4	0.2	3.3
16	UTC	Dekalb DKC65-95RIB	270	33.9	58.9	30681	831	0.8	0.8	0.0	105	4.0	0.6	4.3	0.2	3.0

continue

Table 1812 - 01. Corn Hybrid Response to Starter Fertilizer in Wisconsin.(continued) Arlington, 2018

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	hight in	N %	P %	K %	S %	DM gr
17	Pop-up	Jung 31DP308	202	21.9	58.6	30050	668	1.3	0.8	0.4	94	4.3	0.6	4.6	0.2	3.5
18	Pop-up	Dekalb DKC31-10	201	20.4	59.5	31313	672	2.0	0.0	2.0	90	4.3	0.6	4.5	0.2	4.3
19	Pop-up	Dairyland DS9686	242	22.6	58.6	31818	798	4.0	1.2	2.8	94	4.5	0.5	4.7	0.2	4.7
20	Pop-up	Munson 4877-3010	242	22.6	57.9	31060	797	6.1	0.8	5.2	98	4.6	0.5	4.0	0.2	4.4
21	Pop-up	Dekalb DKC39-27RIB	226	22.5	57.4	30681	746	9.0	0.4	8.6	94	4.6	0.6	4.0	0.2	3.6
22	Pop-up	NK Brand N27P-3110A	254	22.6	59.2	30429	839	5.0	0.8	4.2	99	4.4	0.6	4.0	0.2	3.3
23	Pop-up	Jung 46SS427RIB	269	22.8	57.1	31439	886	6.9	0.4	6.5	99	4.2	0.6	4.7	0.2	4.6
24	Pop-up	NK Brand N40L-3000GT	238	23.8	56.0	30303	779	18.6	0.0	18.6	97	4.1	0.5	4.0	0.2	3.9
25	Pop-up	DuPont Pioneer P9998AMT	272	25.4	57.5	31439	882	2.5	0.0	2.5	99	4.5	0.6	4.0	0.2	4.1
26	Pop-up	Dekalb DKC52-68RIB	246	28.0	54.7	31691	784	2.4	0.0	2.4	102	4.0	0.6	4.0	0.2	4.7
27	Pop-up	NuTech 5F-504	267	27.1	55.0	31565	856	9.6	0.4	9.2	107	4.0	0.6	4.8	0.2	3.7
28	Pop-up	Renk RK717SSTX	252	26.8	56.0	30176	810	9.6	0.9	8.8	98	4.2	0.6	4.9	0.2	3.6
29	Pop-up	Nu-Tech 5F-510	257	31.7	57.5	31565	800	22.1	2.4	19.7	107	3.8	0.6	4.6	0.2	4.0
30	Pop-up	NK Brand N66V-3120EZ1	254	30.2	55.0	30808	800	23.0	0.4	22.6	110	3.5	0.6	4.9	0.2	4.3
31	Pop-up	Dekalb DKC62-20RIB	287	31.9	56.2	32070	894	4.3	1.2	3.2	106	4.4	0.6	4.5	0.2	3.6
32	Pop-up	Dekalb DKC65-95RIB	259	35.1	56.7	31818	789	5.1	1.5	3.6	106	4.4	0.6	3.7	0.2	3.1
33	Starter	Jung 31DP308	215	22.0	58.1	31565	711	0.4	0.4	0.0	96	4.2	0.6	5.1	0.3	3.5
34	Starter	Dekalb DKC31-10	213	19.4	56.1	31186	716	0.8	0.4	0.4	95	4.0	0.6	5.4	0.2	3.7
35	Starter	Dairyland DS9686	253	23.4	57.4	32070	831	3.1	0.0	3.1	96	3.9	0.5	4.7	0.2	3.8
36	Starter	Munson 4877-3010	259	21.6	57.6	32449	859	1.2	0.4	0.8	104	4.0	0.5	5.0	0.2	3.2
37	Starter	Dekalb DKC39-27RIB	233	22.2	55.8	31186	771	5.2	0.4	4.8	93	4.3	0.6	5.2	0.2	3.0
38	Starter	NK Brand N27P-3110A	252	22.9	58.3	31565	830	3.2	1.2	2.0	102	3.8	0.5	4.9	0.2	4.0
39	Starter	Jung 46SS427RIB	278	23.7	55.5	30681	910	0.8	0.0	0.8	101	3.7	0.6	4.4	0.2	3.5
40	Starter	NK Brand N40L-3000GT	229	25.8	54.4	31439	742	7.8	0.4	7.4	105	3.9	0.5	4.8	0.2	3.6
41	Starter	DuPont Pioneer P9998AMT	260	29.2	56.5	32575	824	1.9	0.0	1.9	105	3.7	0.5	4.6	0.2	4.1
42	Starter	Dekalb DKC52-68RIB	271	28.5	53.7	32070	862	0.4	0.0	0.4	110	3.7	0.6	4.8	0.2	3.7
43	Starter	NuTech 5F-504	263	28.6	55.2	31439	838	8.0	0.4	7.7	114	4.7	0.5	4.8	0.2	3.2
44	Starter	Renk RK717SSTX	278	27.2	55.9	32449	892	2.7	0.4	2.4	100	3.9	0.6	4.6	0.2	3.1
45	Starter	Nu-Tech 5F-510	266	31.1	57.1	31944	833	19.8	4.8	15.0	108	4.5	0.6	4.7	0.2	3.8
46	Starter	NK Brand N66V-3120EZ1	255	34.8	56.0	32197	778	18.9	0.0	18.9	117	4.3	0.5	4.7	0.2	4.6
47	Starter	Dekalb DKC62-20RIB	279	35.3	55.3	31439	850	0.0	0.0	0.0	107	4.5	0.5	4.2	0.2	3.4
48	Starter	Dekalb DKC65-95RIB	256	37.0	57.1	31944	769	1.6	0.0	1.6	106	4.3	0.5	4.4	0.2	3.0
Mean			252	26.3	56.7	31355	811	6.6	0.7	5.8	101	4.2	0.6	4.5	0.2	3.6
Probability(%):																
Fertilizer(F)			19.7	27.9	24.6	3.1	31.7	7.4	38.8	7.5	0.7	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	--	--	--	--	--
F x H			12.8	51.5	45.8	3.4	15.2	59.0	88.9	59.5	60.0	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			NS	NS	NS	347	NS	2.3	NS	2.2	2	--	--	--	--	--
Hybrid (H)			10	1.5	1.4	624	36	3.6	1.1	3.7	3	--	--	--	--	--
F x H			NS	NS	NS	1081	NS	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6276 **Year:** 2018

Personnel: Joe Lauer, Kent Kohn, Thierno Diallo

Location: Chippewa Falls, WI **County:** Chippewa

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: ARS406 **Previous Crop:** Corn **Soil Type:** Sattre silt loam

Soil Test: Date: 5 /2 /18 **pH:** 6.7 **OM (%)** 3.5 **P (ppm)** 53 **K (ppm)** 168

Plot Management

Tillage Operations: Field Cultivator Chisel plow

Fertilizer:	Analysis	Rate	Date
Preplant	N/A	N/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/2/18 5/2/18
Post plant	28-0-0	357 lbs/A	N/A
Manure:	Dairy	10000 gal/A	N/A

Herbicide: Acuron 3.0 qt/A **Insecticide:** Force 3G 4.4 lbs/A

Hybrid: Factor

Irrigation: None

Planting Date: 5/2/18 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/04/18 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 29856 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Jung 31DP308 (82)
- 2) Dekalb DKC39-27RIB (89)
- 3) Jung 46SS427RIB (96)
- 4) NK Brand N40L-3000GT (98)
- 5) DuPont Pioneer P9998AMT(99)
- 6) Dekalb DKC52-68RIB (102)
- 7) NuTech 5F-504 (104)
- 8) Nu-Tech 5F-510 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-02

**Table 1812 - 02. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Chippewa Falls, 2018**

Treatment			Grain	Grain	Test	Harvest	*AGI	Lodged			Plant				
number	Fertilizer	Hybrid	yield	moisture	weight	density	\$3.44	Total	Stalk	Root	N	P	K	S	DM
			bu/A	%	lb/bu	plants/A	\$/A	%	%	%	%	%	%	%	gr
	Pop-up		233	23.5	53.5	29856	763	1.3	0.7	0.6	--	--	--	--	--
	Starter		246	22.0	53.5	29856	814	0.5	0.5	0.0	--	--	--	--	--
	UTC		239	23.3	53.6	29856	785	1.6	1.2	0.4	--	--	--	--	--
		Dekalb DKC39-27RIB	205	21.7	50.9	29856	681	0.4	0.4	0.0	--	--	--	--	--
		Dekalb DKC52-68RIB	248	25.3	52.7	29856	806	0.5	0.5	0.0	--	--	--	--	--
		DuPont Pioneer P9998AMT	247	23.4	54.5	29856	811	0.4	0.0	0.4	--	--	--	--	--
		Jung 31DP308	182	19.5	53.3	29856	610	1.5	1.5	0.0	--	--	--	--	--
		Jung 46SS427RIB	222	21.0	51.6	29856	739	0.7	0.3	0.4	--	--	--	--	--
		NK Brand N40L-3000GT	243	22.8	53.6	29856	800	1.3	1.3	0.0	--	--	--	--	--
		Nu-Tech 5F-510	294	27.7	57.6	29856	939	1.0	1.0	0.0	--	--	--	--	--
		NuTech 5F-504	275	22.0	54.0	29856	911	3.2	1.3	1.9	--	--	--	--	--
1	UTC	Jung 31DP308	190	20.0	54.0	29856	636	1.2	1.2	0.0	3.7	0.6	5.2	0.2	6.2
5	UTC	Dekalb DKC39-27RIB	206	20.2	50.8	29856	691	0.0	0.1	0.0	3.7	0.7	6.5	0.2	5.8
7	UTC	Jung 46SS427RIB	220	21.2	50.5	29856	730	0.9	0.9	0.0	3.9	0.6	5.7	0.2	4.9
8	UTC	NK Brand N40L-3000GT	236	23.1	53.9	29856	777	2.6	2.6	0.0	3.4	0.5	5.1	0.2	4.8
9	UTC	DuPont Pioneer P9998AMT	253	22.8	55.2	29856	835	1.3	0.0	1.3	3.6	0.7	6.1	0.2	7.5
10	UTC	Dekalb DKC52-68RIB	244	26.0	52.6	29856	789	1.6	1.6	0.0	3.3	0.6	5.3	0.2	6.9
11	UTC	NuTech 5F-504	281	22.6	54.0	29856	926	4.4	2.2	2.2	3.4	0.6	5.8	0.2	5.5
13	UTC	Nu-Tech 5F-510	284	30.4	57.7	29856	892	0.9	0.9	0.0	3.4	0.6	5.6	0.2	5.9
17	Pop-up	Jung 31DP308	172	19.4	53.0	29856	578	1.9	1.9	0.0	3.4	0.6	6.0	0.2	8.0
21	Pop-up	Dekalb DKC39-27RIB	201	25.4	50.8	29856	650	0.8	0.8	0.0	4.3	0.6	5.3	0.2	7.5
23	Pop-up	Jung 46SS427RIB	219	21.5	52.4	29856	725	1.3	0.0	1.3	4.4	0.7	6.1	0.2	8.0
24	Pop-up	NK Brand N40L-3000GT	238	22.8	53.7	29856	786	0.4	0.4	0.0	4.0	0.6	5.5	0.2	5.6
25	Pop-up	DuPont Pioneer P9998AMT	240	24.5	54.7	29856	781	0.0	0.0	0.0	3.8	0.6	4.9	0.2	4.6
26	Pop-up	Dekalb DKC52-68RIB	241	25.0	52.2	29856	785	0.0	0.0	0.0	3.5	0.6	5.3	0.2	8.3
27	Pop-up	NuTech 5F-504	257	22.1	54.2	29856	852	4.4	0.8	3.6	3.7	0.6	5.6	0.1	8.0
29	Pop-up	Nu-Tech 5F-510	296	27.6	56.7	29856	947	1.7	1.7	0.0	3.7	0.6	5.7	0.2	7.4
33	Starter	Jung 31DP308	183	19.0	52.9	29856	617	1.3	1.3	0.0	4.3	0.7	5.7	0.2	6.1
37	Starter	Dekalb DKC39-27RIB	209	19.6	51.1	29856	703	0.4	0.4	0.0	4.0	0.6	6.0	0.2	6.2
39	Starter	Jung 46SS427RIB	227	20.3	51.7	29856	761	0.0	0.0	0.0	3.9	0.7	5.9	0.2	5.9
40	Starter	NK Brand N40L-3000GT	254	22.6	53.2	29856	837	0.9	0.9	0.0	3.8	0.6	5.8	0.2	7.8
41	Starter	DuPont Pioneer P9998AMT	248	22.9	53.7	29856	816	0.0	0.0	0.0	3.7	0.6	5.6	0.2	7.0
42	Starter	Dekalb DKC52-68RIB	260	24.8	53.3	29856	846	0.0	0.0	0.0	4.0	0.6	5.8	0.2	7.6
43	Starter	NuTech 5F-504	288	21.3	53.8	29856	956	0.8	0.8	0.0	4.0	0.6	5.9	0.2	6.0
45	Starter	Nu-Tech 5F-510	301	25.0	58.3	29856	979	0.4	0.4	0.0	3.9	0.7	6.0	0.2	7.1
Mean			240	22.9	53.5	29856	787	1.1	0.8	0.4	3.8	0.6	5.7	0.2	6.6
Probability(%):															
Fertilizer(F)			7.8	25.0	97.1	100.0	7.3	19.3	26.6	47.6	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	100.0	0.0	3.3	7.6	17.2	--	--	--	--	--
F x H			70.7	10.5	92.6	100.0	73.1	72.0	60.0	83.7	--	--	--	--	--
LSD(0.10):															
Fertilizer(F)			9	1.8	NS	NS	33	NS	NS	NS	--	--	--	--	--
Hybrid (H)			11	1.5	1.3	NS	41	1.4	0.9	NS	--	--	--	--	--
F x H			NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6278 **Year:** 2018
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo
Location: Coleman, WI **County:** Marinette
Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: N/A **Previous Crop:** wheat **Soil Type:** Oconto Silt Loam
Soil Test: Date: 5 /17/18 **pH:** 6.0 **OM (%)** 3.5 **P (ppm)** 57 **K (ppm)** 132

Plot Management

Tillage Operations: Field Cultivator Fall Chisel

Fertilizer:	Analysis	Rate	Date
Preplant	18-46-0 21-0-0-24S	25 lbs/A 75 lbs/A	N/A N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/17/18 5/17/18
Post plant	N/A	N/A	N/A
Manure:	Dairy	5000 gal	N/A

Herbicide: Acuron 3.0 qt/A **Insecticide:** Force 3G 4.4 lbs/A

Irrigation: None **Hybrid:** Factor

Planting Date: 5/17/18 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/06/18 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.28 Acre
Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 32112 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1)Jung 31DP308 (82)
- 2)Dekalb DKC31-10 (81)
- 3)Munson 4877-3010 (88)
- 4)Dekalb DKC39-27RIB (89)
- 5)NK Brand N27P-3110A (92)
- 6)Jung 46SS427RIB (96)
- 7)DuPont Pioneer P9998AMT (99)
- 8)NK Brand N66V-3120EZ1 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-03

**Table 1812 - 03. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Coleman, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	UTC		238	28.0	55.1	32528	759	1.4	1.3	0.2	124	--	--	--	--	--
	Pop-up		234	27.9	55.0	31912	745	2.0	1.9	0.0	126	--	--	--	--	--
	Starter		237	27.9	55.6	31897	757	2.0	2.0	0.1	127	--	--	--	--	--
		Dekalb DKC31-10	211	23.6	58.3	32197	690	1.9	1.9	0.0	123	--	--	--	--	--
		Dekalb DKC39-27RIB	232	25.9	53.2	31481	750	1.6	1.6	0.0	122	--	--	--	--	--
		DuPont Pioneer P9998AMT	261	32.0	55.2	32659	811	0.8	0.8	0.0	126	--	--	--	--	--
		Jung 31DP308	203	22.6	57.5	31776	671	2.8	2.8	0.0	115	--	--	--	--	--
		Jung 46SS427RIB	265	28.6	53.8	32407	842	0.3	0.3	0.0	127	--	--	--	--	--
		Munson 4877-3010	233	24.9	54.2	32407	758	2.4	2.4	0.0	126	--	--	--	--	--
		NK Brand N27P-3110A	239	27.4	54.7	31986	765	0.5	0.5	0.0	124	--	--	--	--	--
		NK Brand N66V-3120EZ1	248	38.5	55.1	31986	739	4.3	3.6	0.7	141	--	--	--	--	--
1	UTC	Jung 31DP308	196	21.9	58.4	31944	648	4.8	4.8	0.0	113	3.6	0.6	6.2	0.2	11.2
2	UTC	Dekalb DKC31-10	211	24.7	58.3	32828	689	0.8	0.8	0.0	122	3.9	0.6	6.5	0.2	9.5
4	UTC	Munson 4877-3010	234	24.5	54.1	32702	762	0.8	0.8	0.0	127	3.4	0.6	6.4	0.3	7.1
5	UTC	Dekalb DKC39-27RIB	245	24.6	52.4	31944	800	1.2	1.2	0.0	120	3.9	0.6	5.8	0.3	6.9
6	UTC	NK Brand N27P-3110A	239	28.7	54.3	33333	758	0.0	0.0	0.0	123	4.0	0.6	5.8	0.2	8.1
7	UTC	Jung 46SS427RIB	271	27.7	52.1	34217	867	0.4	0.4	0.0	128	3.9	0.6	5.9	0.2	9.2
9	UTC	DuPont Pioneer P9998AMT	257	32.2	56.0	31944	799	1.2	1.2	0.0	122	4.1	0.6	5.8	0.2	9.6
13	UTC	NK Brand N66V-3120EZ1	253	39.7	55.4	31313	748	2.4	1.2	1.2	140	3.6	0.6	5.9	0.2	10.6
17	Pop-up	Jung 31DP308	207	23.4	56.0	30429	679	1.7	1.7	0.0	114	4.0	0.6	5.9	0.3	11.3
18	Pop-up	Dekalb DKC31-10	205	22.1	57.5	31565	678	2.4	2.4	0.0	119	3.7	0.7	5.9	0.3	12.3
20	Pop-up	Munson 4877-3010	233	25.8	53.4	32702	752	1.2	1.2	0.0	126	3.8	0.6	5.8	0.2	9.3
21	Pop-up	Dekalb DKC39-27RIB	223	25.9	52.9	30934	721	2.1	2.1	0.0	121	3.4	0.7	5.7	0.2	8.3
22	Pop-up	NK Brand N27P-3110A	239	27.2	54.6	31186	766	0.8	0.8	0.0	128	3.8	0.6	6.3	0.2	11.3
23	Pop-up	Jung 46SS427RIB	263	29.0	55.9	32828	834	0.0	0.0	0.0	125	3.8	0.6	5.2	0.2	10.9
25	Pop-up	DuPont Pioneer P9998AMT	263	32.0	54.7	32828	818	0.0	0.0	0.0	130	4.1	0.6	5.5	0.3	9.4
29	Pop-up	NK Brand N66V-3120EZ1	237	38.2	55.2	32828	708	7.7	7.3	0.4	142	3.5	0.6	5.7	0.3	12.1
33	Starter	Jung 31DP308	208	22.5	57.9	32954	686	1.9	1.9	0.0	117	4.1	0.8	6.2	0.3	12.1
34	Starter	Dekalb DKC31-10	216	24.2	59.3	32197	704	2.4	2.4	0.0	128	3.6	0.7	6.0	0.2	11.1
36	Starter	Munson 4877-3010	233	24.4	55.0	31818	760	5.3	5.3	0.0	125	3.7	0.6	5.9	0.2	9.4
37	Starter	Dekalb DKC39-27RIB	227	27.1	54.3	31565	728	1.5	1.5	0.0	125	3.4	0.6	5.4	0.2	10.1
38	Starter	NK Brand N27P-3110A	239	26.3	55.3	31439	771	0.8	0.8	0.0	123	3.3	0.6	5.9	0.3	9.6
39	Starter	Jung 46SS427RIB	260	29.2	53.4	30176	824	0.5	0.5	0.0	128	3.3	0.6	5.3	0.3	9.9
41	Starter	DuPont Pioneer P9998AMT	263	32.0	54.9	33207	817	1.1	1.1	0.0	127	3.6	0.7	5.9	0.2	10.5
45	Starter	NK Brand N66V-3120EZ1	254	37.7	54.8	31818	761	2.8	2.4	0.4	140	3.6	0.6	5.2	0.2	12.1
Mean			236	27.9	55.3	32112	753	1.8	1.7	0.1	126	3.7	0.6	5.8	0.2	10.1
Probability(%):																
Fertilizer(F)			42.4	99.2	32.9	24.7	49.7	65.6	58.4	22.2	74.0	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	54.7	0.0	1.4	6.2	0.0	0.0	--	--	--	--	--
F x H			49.9	47.0	1.1	2.1	57.6	17.5	16.1	2.2	83.8	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--
Hybrid (H)			9	1.5	0.9	NS	32	1.9	1.9	0.2	5	--	--	--	--	--
F x H			NS	NS	1.6	1701	NS	NS	NS	0.3	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6277 **Year:** 2018

Personnel: Joe Lauer, Kent Kohn, Thierno Diallo

Location: Fond du Lac, WI **County:** Columbia

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Virgil Silt Loam
Soil Test: Date: 5 /17/18 **pH:** 6.5 **OM (%)** 2.5 **P (ppm)** 21 **K (ppm)** 110

Plot Management

Tillage Operations: Field Cultivator Fall Chisel

Fertilizer:	Analysis	Rate	Date
Preplant	46-0-0	391.3 lb/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/17/18 5/17/18
Post plant	N/A	N/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Acuron 3.0 qt/A **Insecticide:** Force 3G 4.4 lbs/A

Hybrid: Factor

Irrigation: None

Planting Date: 5/17/18 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/15/18 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 32287 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Jung 31DP308 (82)
- 2) Dekalb DKC39-27RIB (89)
- 3) DuPont Pioneer P9998AMT (99)
- 4) Dekalb DKC52-68RIB (102)
- 5) NuTech 5F-504 (104)
- 6) Renk RK717SSTX (105)
- 7) Nu-Tech 5F-510 (109)
- 8) NK Brand N66V-3122 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-04

**Table 1812 - 04. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Fond Du Lac, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	UTC		212	26.0	53.3	32907	685	0.4	0.3	0.0	102	--	--	--	--	--
	Pop-up		225	25.1	54.5	31568	729	0.5	0.5	0.0	100	--	--	--	--	--
	Starter		233	25.2	54.6	32386	754	2.6	2.4	0.2	101	--	--	--	--	--
		Dekalb DKC39-27RIB	185	19.5	54.5	31523	623	2.3	2.2	0.1	92	--	--	--	--	--
		Dekalb DKC52-68RIB	247	29.7	52.0	32617	780	0.5	0.5	0.0	102	--	--	--	--	--
		DuPont Pioneer P9998AMT	223	26.2	53.0	32575	719	0.4	0.3	0.1	96	--	--	--	--	--
		Jung 31DP308	174	17.6	57.3	32163	592	4.8	4.7	0.1	89	--	--	--	--	--
		NK Brand N66V-3122	225	32.1	52.4	32365	699	0.4	0.1	0.3	115	--	--	--	--	--
		Nu-Tech 5F-510	263	29.8	55.4	32575	831	0.5	0.5	0.0	109	--	--	--	--	--
		NuTech 5F-504	242	25.8	54.2	33207	781	0.5	0.4	0.1	108	--	--	--	--	--
		Renk RK717SSTX	229	22.5	54.1	31271	756	0.0	0.0	0.0	98	--	--	--	--	--
1	UTC	Jung 31DP308	180	17.8	56.0	33459	610	1.5	1.5	0.0	89	4.0	0.6	6.0	0.2	6.5
5	UTC	Dekalb DKC39-27RIB	188	20.2	54.1	32828	629	0.8	0.4	0.4	92	3.7	0.6	6.0	0.3	6.3
9	UTC	DuPont Pioneer P9998AMT	188	28.1	51.4	32954	598	0.0	0.0	0.0	95	4.1	0.6	6.0	0.2	4.4
10	UTC	Dekalb DKC52-68RIB	243	29.6	51.5	32449	768	0.4	0.4	0.0	105	3.7	0.6	6.2	0.2	7.3
11	UTC	NuTech 5F-504	218	27.2	53.6	33838	699	0.0	0.0	0.0	108	3.3	0.6	6.1	0.2	6.7
12	UTC	Renk RK717SSTX	232	21.9	53.5	31818	768	0.0	0.0	0.0	98	3.6	0.6	6.4	0.2	5.2
13	UTC	Nu-Tech 5F-510	260	30.4	55.1	33080	817	0.0	0.0	0.0	113	3.7	0.6	5.9	0.2	6.1
14	UTC	NK Brand N66V-3122	191	33.3	50.9	32828	588	0.4	0.4	0.0	117	4.2	0.5	5.9	0.3	7.3
17	Pop-up	Jung 31DP308	166	17.5	57.5	30707	563	1.8	1.8	0.0	88	4.2	0.6	6.1	0.3	5.1
21	Pop-up	Dekalb DKC39-27RIB	178	19.6	55.0	30050	599	0.8	0.8	0.0	92					4.4
25	Pop-up	DuPont Pioneer P9998AMT	237	25.7	53.8	32323	768	0.0	0.0	0.0	98	4.2	0.6	6.1	0.2	3.9
26	Pop-up	Dekalb DKC52-68RIB	247	29.4	52.3	31944	782	0.0	0.0	0.0	101	4.1	0.5	5.8	0.2	6.2
27	Pop-up	NuTech 5F-504	249	25.2	54.3	32449	809	0.8	0.4	0.4	106	3.9	0.4	5.9	0.2	4.6
28	Pop-up	Renk RK717SSTX	223	23.1	53.6	31313	735	0.0	0.0	0.0	95	4.1	0.5	6.1	0.2	5.1
29	Pop-up	Nu-Tech 5F-510	260	29.2	56.1	32197	825	0.8	0.8	0.0	108	4.4	0.6	6.5	0.3	4.9
30	Pop-up	NK Brand N66V-3122	240	31.0	53.1	31565	751	0.0	0.0	0.0	114	4.2	0.5	5.6	0.2	4.8
33	Starter	Jung 31DP308	177	17.7	58.5	32323	602	11.0	10.6	0.4	90	3.8	0.5	6.3	0.2	6.5
37	Starter	Dekalb DKC39-27RIB	190	18.9	54.4	31691	641	5.3	5.3	0.0	92	4.3	0.6	6.2	0.2	4.2
41	Starter	DuPont Pioneer P9998AMT	243	24.8	53.6	32449	791	1.2	0.8	0.4	96	4.3	0.6	6.5	0.2	5.8
42	Starter	Dekalb DKC52-68RIB	251	30.2	52.3	33459	791	1.2	1.2	0.0	99	3.8	0.6	5.4	0.2	6.9
43	Starter	NuTech 5F-504	257	25.1	54.7	33333	836	0.8	0.8	0.0	111	4.3	0.5	5.3	0.2	6.0
44	Starter	Renk RK717SSTX	232	22.4	55.2	30681	765	0.0	0.0	0.0	101	4.2	0.6	6.2	0.2	6.3
45	Starter	Nu-Tech 5F-510	270	29.9	55.1	32449	851	0.8	0.8	0.0	107	4.2	0.5	6.4	0.2	6.1
46	Starter	NK Brand N66V-3122	244	32.1	53.2	32702	758	0.8	0.0	0.8	114	3.6	0.5	6.0	0.2	6.8
Mean			224	25.4	54.1	32287	723	1.2	1.1	0.1	101	4.0	0.6	6.0	0.2	5.7
Probability(%):																
Fertilizer(F)			0.9	9.1	6.8	4.1	0.9	9.8	8.2	45.0	42.0	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	2.2	0.0	0.0	0.0	56.7	0.0	--	--	--	--	--
F x H			0.0	1.9	50.4	70.8	0.0	0.5	0.3	10.0	74.0	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			7	0.8	0.9	718	24	1.8	1.6	NS	NS	--	--	--	--	--
Hybrid (H)			9	0.7	0.9	922	31	1.5	1.4	NS	3	--	--	--	--	--
F x H			16	1.3	NS	NS	54	2.8	2.6	0.4	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6249 **Year:** 2018
Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.
Location: Galesville, WI **County:** Trempealeau
Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Downs Silt Loam
Soil Test: Date: 4 /30/18 **pH:** 5.2 **OM (%)** 3.2 **P (ppm)** 27 **K (ppm)** 149

Plot Management

Tillage Operations: Field Cultivator

Fertilizer:	Analysis	Rate	Date
Preplant	46-0-0	217.4 lb/A	N/A
	21-0-0-24S	100 lb/A	N/A
Starter	9-11-30-6S-1Zn	200 lbs/A	4/30/18
	10-34-0	4.08 gal/A	4/30/18
Post plant	N/A	N/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: DiFlexx 1.0 pt/A **Insecticide:** Force 3G 4.4 lbs/A
Laudis 3.0 oz/A

Irrigation: None **Hybrid:** Factor

Planting Date: 4/30/18 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 0/04/18 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.28 Acre
Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 32117 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Jung 31DP308 (82)
- 2) Dekalb DKC39-27RIB (89)
- 3) DuPont Pioneer P9998AMT (99)
- 4) Dekalb DKC52-68RIB (102)
- 5) NuTech 5F-504 (104)
- 6) Renk RK717SSTX (105)
- 7) Nu-Tech 5F-510 (109)
- 8) NK Brand N66V-3120EZ1 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-05

**Table 1812 - 05. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Galesville, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$3.44 \$/A	Lodged			Plant				
								Total %	Stalk %	Root %	N %	P %	K %	S %	DM gr
	UTC		--	--	--	--	--	--	--	--	--	--	--	--	--
	Pop-up		--	--	--	--	--	--	--	--	--	--	--	--	--
	Starter		224	23.0	56.1	32218	736	7.9	7.4	0.5	--	--	--	--	--
		Jung 31DP308	--	--	--	--	--	--	--	--	--	--	--	--	--
		Dekalb DKC39-27RIB	186	19.5	53.8	32097	625	13.6	13.8	0.0	--	--	--	--	--
		Dekalb DKC52-68RIB	234	24.9	52.8	32569	762	4.3	4.3	0.0	--	--	--	--	--
		DuPont Pioneer P9998AMT	216	22.6	55.9	32012	711	0.5	0.4	0.0	--	--	--	--	--
		NK Brand N66V-3120EZ1	254	27.2	55.7	32039	815	6.4	4.3	2.1	--	--	--	--	--
		Nu-Tech 5F-510	269	25.3	57.6	32039	871	4.1	3.4	0.7	--	--	--	--	--
		NuTech 5F-504	259	22.8	56.1	32039	854	3.4	2.7	0.7	--	--	--	--	--
		Renk RK717SSTX	239	22.6	57.1	32071	787	4.3	3.9	0.5	--	--	--	--	--
1	UTC	Jung 31DP308	--	--	--	--	--	--	--	--	3.2	0.5	6.4	0.2	8.3
5	UTC	Dekalb DKC39-27RIB	196	18.8	51.3	32077	662	8.1	8.4	0.0	3.9	0.5	6.0	0.3	9.1
9	UTC	DuPont Pioneer P9998AMT	208	23.1	56.9	31960	683	0.4	0.2	0.0	3.4	0.6	6.0	0.3	10.3
10	UTC	Dekalb DKC52-68RIB	233	25.5	53.2	32039	754	7.1	7.1	0.0	3.7	0.5	5.9	0.2	9.7
11	UTC	NuTech 5F-504	261	22.8	54.9	32039	861	2.4	1.6	0.8	3.8	0.5	6.6	0.2	8.9
12	UTC	Renk RK717SSTX	237	22.7	56.1	32137	782	7.7	6.9	1.2	3.9	0.5	6.0	0.2	9.9
13	UTC	Nu-Tech 5F-510	281	25.5	58.5	32039	912	2.0	1.2	0.8	3.3	0.5	5.9	0.2	8.8
14	UTC	NK Brand N66V-3120EZ1	251	27.0	55.5	32039	806	7.1	6.3	0.8	3.2	0.5	6.0	0.2	9.6
17	Pop-up	Jung 31DP308	--	--	--	--	--	--	--	--	3.4	0.6	6.2	0.2	9.2
21	Pop-up	Dekalb DKC39-27RIB	169	20.1	55.1	32137	568	9.1	9.1	0.0	3.3	0.5	6.6	0.3	9.7
25	Pop-up	DuPont Pioneer P9998AMT	210	22.2	55.2	32039	695	0.4	0.4	0.0	3.4	0.5	6.5	0.2	11.5
26	Pop-up	Dekalb DKC52-68RIB	240	25.0	53.5	32039	781	2.3	2.3	0.0	3.5	0.5	6.7	0.3	10.1
27	Pop-up	NuTech 5F-504	270	22.0	56.0	32039	893	1.6	1.2	0.4	3.1	0.5	5.1	0.3	10.3
28	Pop-up	Renk RK717SSTX	239	22.4	57.7	32039	789	0.4	0.4	0.0	3.5	0.5	5.1	0.3	9.1
29	Pop-up	Nu-Tech 5F-510	278	25.2	57.7	32039	904	3.1	2.3	0.8	3.3	0.5	6.3	0.3	10.1
30	Pop-up	NK Brand N66V-3120EZ1	260	27.1	56.0	32039	836	5.2	2.0	3.2	3.0	0.5	5.2	0.3	12.2
33	Starter	Jung 31DP308	158	18.8	59.0	31843	535	9.6	9.6	0.0	3.2	0.5	6.4	0.4	9.3
37	Starter	Dekalb DKC39-27RIB	192	19.7	54.9	32077	646	23.7	23.9	0.0	3.1	0.4	5.7	0.3	8.5
41	Starter	DuPont Pioneer P9998AMT	229	22.3	55.7	32039	757	0.8	0.8	0.0	3.2	0.5	5.2	0.3	9.3
42	Starter	Dekalb DKC52-68RIB	230	24.2	51.7	33630	751	3.6	3.6	0.0	3.4	0.5	5.5	0.3	9.3
43	Starter	NuTech 5F-504	247	23.6	57.4	32039	809	6.3	5.5	0.8	3.0	0.4	5.2	0.3	8.3
44	Starter	Renk RK717SSTX	239	22.8	57.6	32039	788	4.7	4.4	0.4	3.3	0.4	5.6	0.3	7.0
45	Starter	Nu-Tech 5F-510	246	25.3	56.6	32039	798	7.1	6.7	0.4	3.0	0.4	6.1	0.3	8.8
46	Starter	NK Brand N66V-3120EZ1	251	27.6	55.7	32039	803	7.1	4.7	2.4	3.0	0.5	5.5	0.3	8.4
Mean			234	23.4	55.7	32117	766	5.5	5.0	0.5	3.3	0.5	5.9	0.3	9.4
Probability(%):															
Fertilizer(F)			68.5	86.8	54.0	58.0	69.3	9.8	9.0	97.1	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	63.3	0.0	0.0	0.0	9.1	--	--	--	--	--
F x H			31.6	91.1	33.8	62.2	32.0	5.2	0.5	92.7	--	--	--	--	--
LSD(0.10):															
Fertilizer(F)			NS	NS	NS	NS	NS	3.3	3.2	NS	--	--	--	--	--
Hybrid (H)			15	1.1	1.5	NS	52	2.8	2.2	1.3	--	--	--	--	--
F x H			NS	NS	NS	NS	NS	5.2	4.4	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

-- Wild life damaged the Hybrid.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 395 **Year:** 2018
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo
Location: Hancock, WI **County:** Waushara
Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: **Previous Crop:** Corn **Soil Type:** Plainfield Sand
Soil Test: Date: 5 /3 /18 **pH:** 5.7 **OM (%)** 0.9 **P (ppm)** 62 **K (ppm)** 106

Plot Management

Tillage Operations: Spring Disk

Fertilizer:	Analysis	Rate	Date
Preplant	N/A	N/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/3/18 5/3/18
Post plant	21-0-0-24S 11-52-0 32-0-0	152.3 lbs/A 355 lbs/A 331 lbs/A	N/A N/A N/A
Manure:	N/A	N/A	N/A

Herbicide: Prowl 2.0 pt/A
Laudis 3.0 oz/A

Insecticide: Force 3G 4.4 lbs/A

Irrigation: May - Sept:
11.1"

Hybrid: Factor

Planting Date: 5/3/2017 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/11/2018 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.28 Acre
Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 33389 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Jung 31DP308 (82)
- 2) Dekalb DKC39-27RIB (89)
- 3) DuPont Pioneer P9998AMT (99)
- 4) Dekalb DKC52-68RIB (102)
- 5) NuTech 5F-504 (104)
- 6) Renk RK717SSTX (105)
- 7) Nu-Tech 5F-510 (109)
- 8) NK Brand N66V-3122 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-06

**Table 1812 - 06. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Hancock, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant				
								Total %	Stalk %	Root %	N %	P %	K %	S %	DM gr
	UTC		244	24.6	55.5	33343	793	0.4	0.3	0.1	--	--	--	--	--
	Pop-up		240	24.4	55.4	33417	781	0.7	0.6	0.0	--	--	--	--	--
	Starter		245	24.6	55.9	33407	796	0.8	0.7	0.1	--	--	--	--	--
		Dekalb DKC39-27RIB	213	21.6	55.2	33417	705	1.2	1.2	0.0	--	--	--	--	--
		Dekalb DKC52-68RIB	244	27.0	53.0	33249	783	0.6	0.4	0.3	--	--	--	--	--
		DuPont Pioneer P9998AMT	264	23.8	56.4	33417	865	0.1	0.1	0.0	--	--	--	--	--
		Jung 31DP308	211	21.5	57.6	33417	699	0.5	0.5	0.0	--	--	--	--	--
		NK Brand N66V-3120EZ1	248	25.6	54.4	33389	803	1.0	1.0	0.0	--	--	--	--	--
		Nu-Tech 5F-510	273	28.0	55.3	33417	870	0.6	0.5	0.1	--	--	--	--	--
		NuTech 5F-504	264	24.6	55.9	33417	861	0.6	0.3	0.4	--	--	--	--	--
		Renk RK717SSTX	225	24.2	56.8	33389	736	0.2	0.2	0.0	--	--	--	--	--
1	UTC	Jung 31DP308	209	21.2	58.5	33417	696	0.7	0.7	0.0	4.0	0.8	5.1	0.4	4.2
5	UTC	Dekalb DKC39-27RIB	219	21.0	55.5	33417	728	0.8	0.8	0.0	3.7	0.8	5.7	0.4	3.4
9	UTC	DuPont Pioneer P9998AMT	258	23.9	56.5	33417	845	0.0	0.0	0.0	3.9	0.9	5.8	0.3	3.1
10	UTC	Dekalb DKC52-68RIB	242	27.4	53.1	32912	774	1.2	0.4	0.8	4.2	0.8	5.7	0.4	3.8
11	UTC	NuTech 5F-504	275	24.6	55.8	33417	896	0.4	0.4	0.0	3.8	0.8	5.3	0.4	2.7
12	UTC	Renk RK717SSTX	236	24.4	56.1	33417	771	0.0	0.0	0.0	3.9	0.9	5.7	0.3	3.7
13	UTC	Nu-Tech 5F-510	264	27.7	54.0	33417	844	0.0	0.0	0.0	3.8	0.9	5.8	0.4	3.2
14	UTC	NK Brand N66V-3120EZ1	245	26.7	54.7	33333	788	0.0	0.0	0.0	3.9	0.8	5.6	0.3	4.0
17	Pop-up	Jung 31DP308	208	21.3	56.3	33417	693	0.8	0.8	0.0	3.6	0.8	5.8	0.5	3.9
21	Pop-up	Dekalb DKC39-27RIB	200	22.3	53.6	33417	662	0.8	0.8	0.0	3.7	0.8	5.2	0.4	2.5
25	Pop-up	DuPont Pioneer P9998AMT	267	23.5	56.0	33417	874	0.0	0.0	0.0	3.9	0.8	5.5	0.3	2.7
26	Pop-up	Dekalb DKC52-68RIB	243	26.8	52.5	33417	780	0.0	0.0	0.0	4.3	0.8	5.0	0.5	3.5
27	Pop-up	NuTech 5F-504	245	24.2	55.6	33417	801	0.4	0.4	0.0	3.8	0.8	5.2	0.3	2.4
28	Pop-up	Renk RK717SSTX	217	24.1	57.7	33417	710	0.7	0.7	0.0	4.2	0.9	5.1	0.4	3.3
29	Pop-up	Nu-Tech 5F-510	281	28.0	56.9	33417	897	0.4	0.0	0.4	4.7	0.8	5.2	0.4	3.8
30	Pop-up	NK Brand N66V-3120EZ1	257	25.2	54.5	33417	834	2.2	2.2	0.0	4.7	0.8	5.1	0.4	5.0
33	Starter	Jung 31DP308	214	21.8	57.9	33417	710	0.0	0.0	0.0	4.7	0.8	5.4	0.5	4.0
37	Starter	Dekalb DKC39-27RIB	219	21.5	56.6	33417	726	1.9	1.9	0.0	4.6	0.8	6.2	0.5	4.5
41	Starter	DuPont Pioneer P9998AMT	267	23.9	56.6	33417	874	0.4	0.4	0.0	4.6	0.7	5.2	0.3	5.0
42	Starter	Dekalb DKC52-68RIB	247	26.7	53.6	33417	795	0.7	0.7	0.0	4.6	0.7	6.0	0.3	9.0
43	Starter	NuTech 5F-504	272	25.1	56.4	33417	884	1.1	0.0	1.1	4.7	0.8	5.8	0.3	4.5
44	Starter	Renk RK717SSTX	222	24.1	56.7	33333	726	0.0	0.0	0.0	4.4	0.8	5.5	0.3	4.9
45	Starter	Nu-Tech 5F-510	273	28.4	55.1	33417	867	1.5	1.5	0.0	4.0	0.8	5.4	0.4	6.8
46	Starter	NK Brand N66V-3120EZ1	242	24.9	53.9	33417	788	0.7	0.7	0.0	3.9	0.7	5.5	0.4	6.7
Mean			243	24.5	55.6	33389	790	0.6	0.5	0.1	4.1	0.8	5.5	0.4	4.2
Probability(%):															
Fertilizer(F)			77.2	84.3	56.4	21.0	79.4	57.4	56.2	82.2	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	9.6	0.0	72.5	57.5	61.3	--	--	--	--	--
F x H			35.5	69.8	22.8	3.7	41.5	72.2	68.1	37.5	--	--	--	--	--
LSD(0.10):															
Fertilizer(F)			NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--
Hybrid (H)			12	0.8	1.2	101	41	NS	NS	NS	--	--	--	--	--
F x H			NS	NS	NS	174	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6254 **Year:** 2018

Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.

Location: Janesville, WI **County:** Rock

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: N/A **Previous Crop:** Corn **Soil Type:** Plano Silt Loam

Soil Test: Date: 5 /1 /18 **pH:** 6.0 **OM (%)** 3.0 **P (ppm)** 29 **K (ppm)** 93

Plot Management

Tillage Operations: Field Cultivator Fall Disk Chisel

Fertilizer:	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	N/A	N/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/1/2018 5/1/2018
Post plant	28-0-0	714.3 lb/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Acuron 3.0 qt/A **Insecticide:** Force 3G 4.4 lbs/A

Hybrid: Factor

Irrigation: None

Planting Date: 5/1/2018 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/28/2018 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 31828 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Dekalb DKC31-10 (81)
- 2) Dekalb DKC39-27RIB (89)
- 3) Dekalb DKC62-20RIB (112)
- 4) Dekalb DKC65-95RIB (115)
- 5) DuPont Pioneer P9998AMT (99)
- 6) NK Brand N66V-3120EZ1 (109)
- 7) Nu-Tech 5F-510 (109)
- 8) Renk RK717SSTX (105)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-07

**Table 1812 - 07. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Janesville, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	UTC		232	22.9	55.7	32007	761	6.2	0.8	5.4	101	--	--	--	--	--
	Pop-up		222	22.7	56.1	31944	730	6.2	0.8	5.4	97	--	--	--	--	--
	Starter		232	23.3	55.7	31534	759	3.8	0.5	3.4	101	--	--	--	--	--
		Dekalb DKC31-10	149	15.6	54.1	31818	513	3.3	0.0	3.3	91	--	--	--	--	--
		Dekalb DKC39-27RIB	193	18.1	54.0	30471	655	3.4	1.6	1.9	92	--	--	--	--	--
		Dekalb DKC62-20RIB	250	25.3	54.8	32659	812	2.1	1.3	0.8	102	--	--	--	--	--
		Dekalb DKC65-95RIB	255	29.2	56.7	32070	809	0.5	0.5	0.0	101	--	--	--	--	--
		DuPont Pioneer P9998AMT	244	20.3	57.6	32491	816	5.2	0.3	5.0	97	--	--	--	--	--
		NK Brand N66V-3120EZ1	235	28.3	54.9	32154	747	14.3	0.5	13.8	113	--	--	--	--	--
		Nu-Tech 5F-510	259	24.7	56.6	32491	844	11.6	0.8	10.8	102	--	--	--	--	--
		Renk RK717SSTX	244	22.1	57.9	30471	807	2.7	0.5	2.2	98	--	--	--	--	--
1	UTC	Dekalb DKC31-10	147	15.2	53.2	31060	504	0.0	0.0	0.0	91	4.1	0.6	1.7	0.2	6.0
5	UTC	Dekalb DKC39-27RIB	204	17.8	54.5	32070	692	4.7	2.4	2.3	95	4.1	0.6	2.2	0.2	5.8
9	UTC	DuPont Pioneer P9998AMT	244	21.9	58.0	32575	809	12.4	0.0	12.4	99	4.0	0.5	2.0	0.2	5.6
12	UTC	Renk RK717SSTX	255	21.9	57.6	32070	843	3.2	0.8	2.3	101	4.4	0.6	2.8	0.2	3.8
13	UTC	Nu-Tech 5F-510	266	23.8	55.3	34090	871	12.1	1.6	10.5	101	4.0	0.6	1.9	0.2	5.4
14	UTC	NK Brand N66V-3120EZ1	228	28.2	54.6	31060	728	15.3	0.0	15.3	111	4.1	0.5	3.0	0.2	6.5
15	UTC	Dekalb DKC62-20RIB	249	24.9	54.9	32070	809	0.8	0.8	0.0	103	3.9	0.6	2.6	0.2	5.2
16	UTC	Dekalb DKC65-95RIB	264	29.3	57.6	31060	834	0.7	0.7	0.0	104	4.4	0.6	2.4	0.2	4.3
17	Pop-up	Dekalb DKC31-10	144	15.8	55.5	32070	496	5.3	0.0	5.3	87	4.2	0.7	2.4	0.2	10.0
21	Pop-up	Dekalb DKC39-27RIB	185	17.9	54.1	30303	626	5.6	2.4	3.2	86	3.8	0.6	2.0	0.2	7.3
25	Pop-up	DuPont Pioneer P9998AMT	244	19.8	57.9	33080	820	3.3	0.8	2.4	94	4.6	0.6	2.1	0.2	7.1
28	Pop-up	Renk RK717SSTX	238	20.0	58.2	32575	798	3.3	0.8	2.5	96	4.4	0.6	2.2	0.2	6.6
29	Pop-up	Nu-Tech 5F-510	246	25.2	57.8	31060	797	13.5	0.0	13.5	102	4.2	0.5	2.4	0.1	6.9
30	Pop-up	NK Brand N66V-3120EZ1	227	28.7	54.9	33585	723	17.7	1.5	16.2	111	4.2	0.5	2.5	0.2	7.3
31	Pop-up	Dekalb DKC62-20RIB	246	24.5	54.1	32070	803	0.0	0.0	0.0	99	4.4	0.6	2.0	0.2	7.8
32	Pop-up	Dekalb DKC65-95RIB	247	29.4	56.0	30808	780	0.8	0.8	0.0	98	4.3	0.7	2.5	0.2	5.4
33	Starter	Dekalb DKC31-10	157	15.8	53.5	32323	538	4.7	0.0	4.7	93	4.6	0.6	3.4	0.2	5.3
37	Starter	Dekalb DKC39-27RIB	191	18.6	53.5	29040	646	0.0	0.0	0.0	93	4.0	0.6	3.6	0.2	5.9
41	Starter	DuPont Pioneer P9998AMT	244	19.3	56.7	32323	820	0.0	0.0	0.0	98	4.0	0.7	3.0	0.2	8.2
44	Starter	Renk RK717SSTX	239	24.5	57.9	31565	779	1.7	0.0	1.7	97	4.5	0.6	4.1	0.2	6.4
45	Starter	Nu-Tech 5F-510	266	25.0	56.7	32323	864	9.2	0.8	8.4	104	4.0	0.6	3.3	0.2	6.4
46	Starter	NK Brand N66V-3120EZ1	248	28.0	55.2	31818	792	9.8	0.0	9.8	116	4.1	0.6	3.4	0.2	6.7
47	Starter	Dekalb DKC62-20RIB	255	26.4	55.4	33333	823	5.4	3.1	2.3	105	4.3	0.5	3.2	0.2	5.0
48	Starter	Dekalb DKC65-95RIB	256	29.0	56.7	29545	812	0.0	0.0	0.0	101	4.5	0.6	3.7	0.2	4.4
Mean			229	23.0	55.8	31828	750	5.4	0.7	4.7	99	4.2	0.6	2.7	0.2	6.2
Probability(%):																
Fertilizer(F)			32.2	32.0	68.9	66.5	32.3	60.6	70.4	66.4	2.5	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	4.0	0.0	1.6	28.1	1.0	0.0	--	--	--	--	--
F x H			66.8	4.8	70.3	35.8	57.5	95.8	20.4	97.3	54.5	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			NS	NS	NS	NS	NS	NS	NS	NS	2	--	--	--	--	--
Hybrid (H)			11	1.1	1.3	1362	36	6.9	NS	6.7	3	--	--	--	--	--
F x H			NS	1.8	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6275 **Year:** 2018

Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.

Location: Marshfield, WI **County:** Wood

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Withee Silt Loam

Soil Test: Date: 5/8/2018 **pH:** 6.0 **OM (%)** 2.5 **P (ppm)** 30 **K (ppm)** 91

Plot Management

Tillage Operations: Vertical Tillage Fall Disk Chisel

Fertilizer:	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	N/A	N/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/8/2018 5/8/2018
Post plant	28-0-0	425 lbs/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Accent Q 1.0 oz/A
Hornet 3.0 oz/A
Me-too-lachlor 1.7 pt/A

Insecticide: Force 3G 4.4 lbs/A
Hybrid: Factor

Irrigation: None

Planting Date: 5/8/2018 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/18/2018 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 31395 plants per acre

Factors/Treatments:

Hybrid (RM):

- | | |
|------------------------------|---------------------------------|
| 1) Jung 31DP308 (82) | 9) DuPont Pioneer P9998AMT (99) |
| 2) Dekalb DKC31-10 (81) | 10) Dekalb DKC52-68RIB (102) |
| 3) Dairyland DS9686 (86) | 11) NuTech 5F-504 (104) |
| 4) Munson 4877-3010 (88) | 12) Renk RK717SSTX (105) |
| 5) Dekalb DKC39-27RIB (89) | 13) Nu-Tech 5F-510 (109) |
| 6) NK Brand N27P-3110A (92) | 14) NK Brand N66V-3120EZ1 (109) |
| 7) Jung 46SS427RIB (96) | 15) Dekalb DKC62-20RIB (112) |
| 8) NK Brand N40L-3000GT (98) | 16) Dekalb DKC65-95RIB (115) |

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-08

Table 1812 - 08. Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Marshfield, 2018

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$3.44 \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	UTC		185	30.5	54.4	32087	580	0.5	0.5	0.1	91	--	--	--	--	--
	Pop-up		181	28.6	54.7	30720	572	3.5	2.9	0.6	91	--	--	--	--	--
	Starter		188	29.2	55.4	31377	593	1.5	0.7	0.8	93	--	--	--	--	--
		Dairyland DS9686	157	23.7	56.2	31066	516	8.0	7.6	0.4	87	--	--	--	--	--
		Dekalb DKC31-10	147	21.8	57.1	31445	487	0.9	0.9	0.0	86	--	--	--	--	--
		Dekalb DKC39-27RIB	176	24.2	53.3	30639	576	1.2	0.7	0.5	87	--	--	--	--	--
		Dekalb DKC52-68RIB	211	32.8	53.4	32533	652	0.0	0.0	0.0	91	--	--	--	--	--
		Dekalb DKC62-20RIB	201	37.6	54.0	32786	605	0.5	0.2	0.2	97	--	--	--	--	--
		Dekalb DKC65-95RIB	198	39.3	55.5	31271	587	0.3	0.0	0.3	97	--	--	--	--	--
		DuPont Pioneer P9998AMT	195	30.1	53.9	31734	614	0.1	0.0	0.1	85	--	--	--	--	--
		Jung 31DP308	138	21.1	57.5	31303	458	11.0	9.9	1.1	83	--	--	--	--	--
		Jung 46SS427RIB	194	26.7	53.8	31734	623	0.6	0.3	0.3	88	--	--	--	--	--
		Munson 4877-3010	184	22.7	55.1	31823	607	1.1	0.4	0.7	89	--	--	--	--	--
		NK Brand N27P-3110A	184	25.2	55.5	30766	598	2.6	0.8	1.9	93	--	--	--	--	--
		NK Brand N40L-3000GT	186	30.3	52.9	28451	587	2.0	0.3	1.7	95	--	--	--	--	--
		NK Brand N66V-3120EZ1	188	37.3	54.3	31565	564	0.5	0.4	0.1	106	--	--	--	--	--
		Nu-Tech 5F-510	201	35.1	55.5	32702	612	0.1	0.1	0.0	93	--	--	--	--	--
		NuTech 5F-504	209	32.3	54.4	31902	648	0.0	0.0	0.0	96	--	--	--	--	--
		Renk RK717SSTX	185	30.7	54.7	30597	579	0.5	0.1	0.4	91	--	--	--	--	--
1	UTC	Jung 31DP308	153	20.6	55.6	32466	510	1.2	1.2	0.0	79	3.3	0.3	3.9	0.2	1.4
2	UTC	Dekalb DKC31-10	151	22.9	55.5	32449	496	0.4	0.4	0.0	86	3.4	0.4	3.9	0.2	1.9
3	UTC	Dairyland DS9686	164	26.7	54.4	31439	527	1.9	1.9	0.0	88	3.2	0.3	4.0	0.2	1.4
4	UTC	Munson 4877-3010	188	22.9	55.0	31818	618	0.8	0.8	0.0	88	3.0	0.3	4.1	0.2	1.3
5	UTC	Dekalb DKC39-27RIB	175	24.1	52.2	32070	573	0.4	0.4	0.0	88	2.9	0.4	4.3	0.3	1.3
6	UTC	NK Brand N27P-3110A	177	27.9	54.4	30934	564	0.8	0.8	0.0	90	3.1	0.3	4.1	0.2	1.4
7	UTC	Jung 46SS427RIB	195	27.6	52.1	32449	624	0.0	0.0	0.0	88	3.5	0.3	4.4	0.2	1.5
8	UTC	NK Brand N40L-3000GT	185	32.5	53.2	29545	575	1.7	0.9	0.9	95	3.3	0.3	3.8	0.2	1.6
9	UTC	DuPont Pioneer P9998AMT	193	31.7	54.1	32702	602	0.0	0.0	0.0	84	3.5	0.4	3.7	0.2	1.5
10	UTC	Dekalb DKC52-68RIB	204	34.1	53.5	33459	625	0.0	0.0	0.0	89	3.8	0.4	3.8	0.2	1.9
11	UTC	NuTech 5F-504	200	33.5	54.7	31691	617	0.0	0.0	0.0	95	3.4	0.4	4.1	0.2	1.2
12	UTC	Renk RK717SSTX	192	32.4	55.2	31186	597	0.4	0.4	0.0	90	3.6	0.3	3.9	0.2	1.1
13	UTC	Nu-Tech 5F-510	212	34.8	56.2	33459	649	0.0	0.0	0.0	94	3.7	0.3	3.2	0.2	1.5
14	UTC	NK Brand N66V-3120EZ1	188	36.9	54.4	31944	568	0.4	0.4	0.0	104	3.2	0.3	3.2	0.2	1.8
15	UTC	Dekalb DKC62-20RIB	194	39.6	54.1	32828	576	0.4	0.4	0.0	98	3.3	0.4	4.4	0.2	1.4
16	UTC	Dekalb DKC65-95RIB	192	39.8	55.2	32954	567	0.4	0.0	0.4	94	3.7	0.4	4.1	0.2	1.4

Table 112 - 01. Corn Hybrid Response to Starter Fertilizer in Wisconsin.continued **Marshfield, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$3.44 \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	hight in	N %	P %	K %	S %	DM gr
17	Pop-up	Jung 31DP308	104	20.2	58.2	31140	347	28.4	27.2	1.3	85	3.3	0.4	3.3	0.2	2.3
18	Pop-up	Dekalb DKC31-10	139	21.0	57.3	30934	462	1.7	1.7	0.0	84	3.2	0.4	3.1	0.2	2.6
19	Pop-up	Dairyland DS9686	151	22.4	56.6	29941	498	15.0	13.7	1.3	87	3.4	0.4	3.3	0.2	2.1
20	Pop-up	Munson 4877-3010	181	22.0	54.3	31708	599	0.6	0.0	0.6	90	3.0	0.4	2.5	0.2	1.8
21	Pop-up	Dekalb DKC39-27RIB	173	23.8	53.8	27904	566	2.1	1.7	0.4	84	3.5	0.2	2.0	0.1	2.3
22	Pop-up	NK Brand N27P-3110A	191	23.6	55.7	30681	626	3.4	0.0	3.4	91	3.4	0.3	3.8	0.2	2.0
23	Pop-up	Jung 46SS427RIB	189	26.4	53.9	31313	608	0.8	0.8	0.0	88	3.2	0.3	3.6	0.2	2.4
24	Pop-up	NK Brand N40L-3000GT	190	27.7	52.5	27272	609	1.9	0.0	1.9	94	3.4	0.4	3.2	0.2	2.4
25	Pop-up	DuPont Pioneer P9998AMT	195	28.3	53.2	31186	621	0.0	0.0	0.0	85	2.8	0.4	2.6	0.2	2.5
26	Pop-up	Dekalb DKC52-68RIB	215	31.4	52.8	31818	670	0.0	0.0	0.0	90	3.2	0.4	3.1	0.2	2.6
27	Pop-up	NuTech 5F-504	206	32.0	54.5	31060	642	0.0	0.0	0.0	96	3.4	0.4	3.6	0.2	2.1
28	Pop-up	Renk RK717SSTX	183	29.2	54.0	29419	580	0.4	0.0	0.4	93	3.4	0.4	3.3	0.2	2.6
29	Pop-up	Nu-Tech 5F-510	192	34.5	55.2	31313	588	0.4	0.4	0.0	92	3.5	0.3	3.4	0.2	2.7
30	Pop-up	NK Brand N66V-3120EZ1	181	38.6	54.3	32702	540	0.4	0.0	0.4	107	3.4	0.4	2.8	0.2	2.7
31	Pop-up	Dekalb DKC62-20RIB	203	36.6	53.6	32575	611	0.4	0.4	0.0	95	3.4	0.4	3.1	0.2	2.7
32	Pop-up	Dekalb DKC65-95RIB	198	39.3	55.8	30555	588	0.4	0.0	0.4	96	3.2	0.4	3.6	0.2	2.2
33	Starter	Jung 31DP308	157	22.5	58.6	30303	517	3.3	1.3	2.0	84	3.8	0.4	4.8	0.2	2.4
34	Starter	Dekalb DKC31-10	152	21.7	58.6	30951	502	0.6	0.6	0.0	87	4.1	0.5	5.1	0.3	3.0
35	Starter	Dairyland DS9686	158	22.1	57.7	31818	522	7.2	7.2	0.0	87	4.0	0.4	4.6	0.3	2.4
36	Starter	Munson 4877-3010	184	23.2	56.0	31944	604	2.0	0.4	1.6	90	3.5	0.3	4.8	0.2	1.7
37	Starter	Dekalb DKC39-27RIB	181	24.6	54.0	31944	589	1.2	0.0	1.2	88	3.9	0.4	4.5	0.2	2.5
38	Starter	NK Brand N27P-3110A	185	24.2	56.5	30681	604	3.7	1.5	2.2	98	3.8	0.4	4.1	0.2	2.1
39	Starter	Jung 46SS427RIB	197	26.1	55.3	31439	636	0.8	0.0	0.8	88	3.9	0.4	4.5	0.2	1.9
40	Starter	NK Brand N40L-3000GT	184	30.7	53.1	28535	576	2.3	0.0	2.3	95	3.7	0.4	4.1	0.2	2.4
41	Starter	DuPont Pioneer P9998AMT	196	30.2	54.4	31313	617	0.4	0.0	0.4	88	4.0	0.5	4.4	0.2	2.3
42	Starter	Dekalb DKC52-68RIB	214	32.9	54.0	32323	661	0.0	0.0	0.0	93	4.0	0.5	4.0	0.2	2.3
43	Starter	NuTech 5F-504	219	31.4	53.9	32954	684	0.0	0.0	0.0	98	4.0	0.5	4.4	0.2	2.4
44	Starter	Renk RK717SSTX	178	30.6	54.7	31186	560	0.8	0.0	0.8	89	3.9	0.5	4.8	0.2	1.9
45	Starter	Nu-Tech 5F-510	198	35.9	55.1	33333	600	0.0	0.0	0.0	94	4.0	0.5	4.5	0.2	2.3
46	Starter	NK Brand N66V-3120EZ1	193	36.2	54.2	30050	585	0.8	0.8	0.0	108	3.4	0.4	4.5	0.2	2.3
47	Starter	Dekalb DKC62-20RIB	208	36.5	54.4	32954	629	0.7	0.0	0.7	98	3.6	0.5	4.4	0.2	2.1
48	Starter	Dekalb DKC65-95RIB	203	38.7	55.5	30303	605	0.0	0.0	0.0	100	3.6	0.6	4.5	0.2	2.1
Mean			185	29.4	54.8	31395	582	1.8	1.4	0.5	91	3.5	0.4	3.9	0.2	2.0
Probability(%):																
Fertilizer(F)			9.0	12.2	23.8	2.7	16.4	1.1	1.2	8.0	32.3	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	--	--	--	--	--
F x H			2.6	18.8	32.2	31.1	3.2	0.0	0.0	81.6	97.1	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			5	NS	NS	639	NS	1.1	1.0	0.5	NS	--	--	--	--	--
Hybrid (H)			9	1.4	1.1	1151	31	1.9	1.7	0.9	3	--	--	--	--	--
F x H			16	NS	NS	NS	54	3.3	3.0	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6252 **Year:** 2018

Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.

Location: Montfort, WI **County:** Grant

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: **Previous Crop:** Soybean **Soil Type** Dodgeville Silt Loam
Soil Test: Date: 4 /28/18 **pH:** 6.8 **OM (%)** 2.9 **P (ppm)** 41 **K (ppm)** 162

Plot Management

Tillage Operations: Strip-till

Fertilizer:	Analysis	Rate	Date
Preplant	21-0-0-24S 11-52-0	100 lb/A 54.5 lb/A	N/A N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/8/2017 5/8/2017
Post plant	N/A	N/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Compadre 2.6 oz/A
Atrazine 4L 28.8 oz/A
Callisto 3.0 oz/A
Zidua 2.0 oz/A

Insecticide: Force 3G 4.4 lbs/A
Hybrid: Factor

Irrigation: None

Planting Date: 4/28/2018 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 9/27/18 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 32028 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Dekalb DKC31-10 (81)
- 2) Dekalb DKC39-27RIB (89)
- 3) Dekalb DKC62-20RIB (112)
- 4) Dekalb DKC65-95RIB (115)
- 5) DuPont Pioneer P9998AMT (99)
- 6) NK Brand N66V-3120EZ1 (109)
- 7) Nu-Tech 5F-510 (109)
- 8) Renk RK717SSTX (105)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-09

Table 1812 - 09 Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Montfort, 2018															
Treatment number	Fertilizer	Hybrid	Grain	Grain	Test	Harvest	*AGI	Lodged			Plant				
			yield	moisture	weight	density	\$3.44	Total	Stalk	Root	N	P	K	S	DM
			bu/A	%	lb/bu	plants/A	\$/A	%	%	%	%	%	%	%	gr
	UTC		229	19.5	57.5	32028	769	9.7	9.1	0.6	--	--	--	--	--
	Pop-up		--	--	--	--	--	--	--	--	--	--	--	--	--
	Starter*		--	--	--	--	--	--	--	--	--	--	--	--	--
		Dekalb DKC31-10	--	--	--	--	--	--	--	--	--	--	--	--	--
		Dekalb DKC39-27RIB	184	16.4	56.2	32028	628	8.0	7.7	0.3	--	--	--	--	--
		Dekalb DKC62-20RIB	234	20.6	56.0	32028	780	7.1	7.1	0.0	--	--	--	--	--
		Dekalb DKC65-95RIB	229	21.0	57.4	32028	761	1.6	1.6	0.0	--	--	--	--	--
		DuPont Pioneer P9998AMT	249	19.4	58.3	32028	837	2.1	1.6	0.5	--	--	--	--	--
		NK Brand N66V-3120EZ1	225	20.1	57.3	32028	752	10.2	10.2	0.0	--	--	--	--	--
		Nu-Tech 5F-510	245	21.1	58.1	32028	817	7.2	7.0	0.3	--	--	--	--	--
		Renk RK717SSTX	224	17.9	58.3	32028	761	4.6	4.3	0.3	--	--	--	--	--
1	UTC	Dekalb DKC31-10	236	20.7	57.2	32028	788	39.4	34.9	4.7	4.7	0.6	5.9	0.2	4.3
5	UTC	Dekalb DKC39-27RIB	177	16.4	56.9	32028	607	11.0	10.6	0.4	4.6	0.6	4.7	0.2	3.1
9	UTC	DuPont Pioneer P9998AMT	254	19.4	58.6	32028	855	0.8	0.8	0.0	4.8	0.6	5.1	0.3	3.7
12	UTC	Renk RK717SSTX	231	17.1	57.2	32028	786	7.9	7.9	0.0	3.9	0.6	4.5	0.3	3.3
13	UTC	Nu-Tech 5F-510	242	20.9	58.0	32028	807	3.2	3.2	0.0	3.9	0.6	4.8	0.2	3.0
14	UTC	NK Brand N66V-3120EZ1	225	20.1	58.1	32028	752	6.7	6.7	0.0	4.4	0.5	5.0	0.2	3.3
15	UTC	Dekalb DKC62-20RIB	237	20.7	56.7	32028	791	7.5	7.5	0.0	4.7	0.6	4.6	0.2	3.2
16	UTC	Dekalb DKC65-95RIB	229	20.9	56.9	32028	762	1.2	1.2	0.0	4.6	0.6	4.9	0.2	2.3
17	Pop-up	Dekalb DKC31-10	--	--	--	--	--	--	--	--	4.4	0.5	4.3	0.2	5.6
21	Pop-up	Dekalb DKC39-27RIB	188	16.1	55.7	32028	647	3.8	3.8	0.1	4.4	0.4	4.5	0.3	3.7
25	Pop-up	DuPont Pioneer P9998AMT	240	19.2	58.3	32028	809	0.8	0.8	0.0	4.6	0.5	4.5	0.2	4.3
28	Pop-up	Renk RK717SSTX	222	18.2	58.8	32028	753	0.8	0.8	0.0	4.1	0.5	4.7	0.2	4.5
29	Pop-up	Nu-Tech 5F-510	247	21.1	58.4	32028	821	5.5	4.7	0.8	4.1	0.5	4.8	0.2	4.4
30	Pop-up	NK Brand N66V-3120EZ1	223	20.7	57.1	32028	743	9.5	9.5	0.0	3.9	0.5	4.9	0.2	4.2
31	Pop-up	Dekalb DKC62-20RIB	237	20.4	56.1	32028	794	3.5	3.5	0.0	4.3	0.5	4.2	0.2	4.6
32	Pop-up	Dekalb DKC65-95RIB	223	21.0	58.3	32028	744	1.6	1.6	0.0	4.1	0.5	5.0	0.2	4.1
33	Starter	Dekalb DKC31-10	--	--	--	--	--	--	--	--	4.5	0.6	4.9	0.2	4.8
37	Starter	Dekalb DKC39-27RIB	185	16.7	56.1	32028	631	9.1	8.7	0.4	4.3	0.5	4.9	0.2	3.7
41	Starter	DuPont Pioneer P9998AMT	252	19.7	58.1	32028	847	4.7	3.2	1.6	4.3	0.5	5.0	0.2	3.9
44	Starter	Renk RK717SSTX	220	18.5	59.0	32028	744	5.1	4.3	0.8	3.8	0.5	4.8	0.2	3.4
45	Starter	Nu-Tech 5F-510	247	21.2	57.8	32028	822	13.0	13.0	0.0	4.3	0.6	5.1	0.2	4.0
46	Starter	NK Brand N66V-3120EZ1	226	19.5	56.8	32028	760	14.6	14.6	0.0	3.5	0.5	5.3	0.3	4.4
47	Starter	Dekalb DKC62-20RIB	226	20.7	55.3	32028	755	10.2	10.2	0.0	4.1	0.6	4.7	0.2	4.2
48	Starter	Dekalb DKC65-95RIB	234	21.2	57.1	32028	777	2.0	2.0	0.0	4.5	0.6	5.1	0.3	4.4
Mean			227	19.5	57.4	32028	763	7.1	6.7	0.4	4.3	0.5	4.8	0.2	3.9
Probability(%):															
Fertilizer(F)			90.1	46.2	50.7	100.0	89.1	12.4	14.1	56.6	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	--	--	--	--	--
F x H			89.8	46.7	23.0	100.0	89.0	69.7	64.1	43.1	--	--	--	--	--
LSD(0.10):															
Fertilizer(F)			NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--
Hybrid (H)			11	0.6	0.8	NS	37	4.5	4.4	0.6	--	--	--	--	--
F x H			NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

-- Many plots of the same hybrid dropped.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6274 **Year:** 2018

Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.

Location: Seymour, WI **County:** Outagamie

Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: N/A **Previous Crop:** Soybean **Soil Type:** Onaway Silt Loam

Soil Test: Date: 5 /17/18 **pH:** 6.9 **OM (%)** 2.3 **P (ppm)** 25.3 **K (ppm)** 146

Plot Management

Tillage Operations: Field Cultivator

Fall Disk Chisel

Fertilizer:	<u>Analysis</u>	<u>Rate</u>	<u>Date</u>
Preplant	46-0-0	152.2 lbs/A	N/A
	11-52-0	154 lbs/A	N/A
Starter	9-11-30-6S-1Zn	200 lbs/A	5/17/2018
	10-34-0	4.08 gal/A	5/17/2018
Post plant	32-0-0	221 lbs/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Roundup 30 oz/A
Capreno 4.0 oz/A
Atrazine 0.75 lb/A

Insecticide: Force 3G 4.4 lbs/A

Hybrid: Factor

Irrigation: None

Planting Date: 5/17/2018 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/16/2018 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 32791 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Dekalb DKC39-27RIB (89)
- 2) Dekalb DKC52-68RIB (102)
- 3) DuPont Pioneer P9998AMT (99)
- 4) Jung 31DP308 (82)
- 5) Jung 46SS427RIB (96)
- 6) NK Brand N40L-3000GT (98)
- 7) NuTech 5F-504 (104)
- 8) Nu-Tech 5F-510 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-10

**Table 1812 - 10. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Seymour, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	UTC		204	24.4	54.6	33238	665	9.8	9.6	0.2	99	--	--	--	--	--
	Pop-up		212	24.5	54.8	31628	690	9.5	9.4	0.0	102	--	--	--	--	--
	Starter		204	24.9	54.5	33506	663	7.7	7.6	0.1	99	--	--	--	--	--
		Dekalb DKC39-27RIB	190	20.0	54.9	32659	638	18.5	18.3	0.2	94	--	--	--	--	--
		Dekalb DKC52-68RIB	218	28.5	52.5	33417	694	4.3	4.3	0.0	104	--	--	--	--	--
		DuPont Pioneer P9998AMT	216	24.8	54.4	33249	703	4.5	4.3	0.2	98	--	--	--	--	--
		Jung 31DP308	174	18.7	57.9	33080	588	25.4	24.9	0.5	93	--	--	--	--	--
		Jung 46SS427RIB	216	22.5	54.5	33291	714	3.2	3.2	0.0	98	--	--	--	--	--
		NK Brand N40L-3000GT	200	24.5	53.9	32323	653	11.2	11.2	0.0	100	--	--	--	--	--
		Nu-Tech 5F-510	214	30.3	54.8	31523	672	1.0	1.0	0.0	104	--	--	--	--	--
		NuTech 5F-504	225	27.2	54.2	32786	722	3.8	3.8	0.0	108	--	--	--	--	--
1	UTC	Jung 31DP308	165	18.7	57.1	33207	557	27.9	26.8	1.1	89	3.1	0.4	4.2	0.3	9.8
5	UTC	Dekalb DKC39-27RIB	194	20.1	55.7	32449	650	16.0	15.3	0.7	94	3.1	0.4	3.8	0.3	8.2
7	UTC	Jung 46SS427RIB	212	22.3	54.9	33964	701	3.0	3.0	0.0	95	3.4	0.5	4.4	0.3	9.1
8	UTC	NK Brand N40L-3000GT	199	24.1	54.8	32954	649	19.4	19.4	0.0	101	3.3	0.5	6.1	0.3	10.5
9	UTC	DuPont Pioneer P9998AMT	214	25.1	53.4	33459	696	1.9	1.9	0.0	98	3.5	0.4	4.4	0.2	8.5
10	UTC	Dekalb DKC52-68RIB	223	27.9	52.2	33585	712	4.9	4.9	0.0	103	3.0	0.5	4.7	0.3	10.7
11	UTC	NuTech 5F-504	213	26.5	54.2	32575	685	4.3	4.3	0.0	106	3.3	0.4	3.7	0.2	9.2
13	UTC	Nu-Tech 5F-510	214	30.2	54.3	33712	674	1.1	1.1	0.0	105	3.4	0.4	4.6	0.3	8.1
17	Pop-up	Jung 31DP308	184	19.1	58.0	32828	620	19.1	18.8	0.4	95	3.0	0.6	6.0	0.3	12.1
21	Pop-up	Dekalb DKC39-27RIB	194	20.2	54.6	32449	649	21.9	21.9	0.0	96	3.9	0.5	4.7	0.3	12.1
23	Pop-up	Jung 46SS427RIB	228	22.3	55.1	31818	752	2.4	2.4	0.0	102	3.7	0.5	5.5	0.3	11.3
24	Pop-up	NK Brand N40L-3000GT	204	24.8	53.9	31060	664	10.4	10.4	0.0	103	3.2	0.4	4.8	0.3	11.9
25	Pop-up	DuPont Pioneer P9998AMT	215	24.5	54.5	32575	700	9.8	9.8	0.0	98	4.0	0.5	4.0	0.3	11.6
26	Pop-up	Dekalb DKC52-68RIB	222	28.3	52.6	33207	705	5.4	5.4	0.0	106	3.6	0.5	5.3	0.3	12.3
27	Pop-up	NuTech 5F-504	230	27.0	54.7	32323	738	4.7	4.7	0.0	108	3.6	0.5	5.9	0.3	10.5
29	Pop-up	Nu-Tech 5F-510	218	29.5	55.1	26767	689	2.0	2.0	0.0	103	3.6	0.5	5.8	0.3	10.5
33	Starter	Jung 31DP308	173	18.2	58.7	33207	588	29.0	29.0	0.0	94	3.9	0.5	4.6	0.3	8.5
37	Starter	Dekalb DKC39-27RIB	183	19.6	54.3	33080	616	17.6	17.6	0.0	92	3.3	0.5	4.4	0.3	8.3
39	Starter	Jung 46SS427RIB	209	23.0	53.6	34090	689	4.1	4.1	0.0	97	3.6	0.5	5.0	0.3	10.3
40	Starter	NK Brand N40L-3000GT	198	24.7	53.1	32954	646	3.8	3.8	0.0	97	3.4	0.4	4.6	0.3	10.2
41	Starter	DuPont Pioneer P9998AMT	219	24.8	55.2	33712	712	1.8	1.1	0.7	98	3.2	0.5	5.7	0.3	9.9
42	Starter	Dekalb DKC52-68RIB	210	29.4	52.7	33459	664	2.6	2.6	0.0	102	4.0	0.5	4.7	0.3	9.8
43	Starter	NuTech 5F-504	233	28.1	53.9	33459	742	2.3	2.3	0.0	111	3.5	0.5	4.8	0.3	9.3
45	Starter	Nu-Tech 5F-510	209	31.3	54.8	34090	652	0.0	0.0	0.0	105	4.1	0.5	4.1	0.3	10.2
Mean			207	24.6	54.6	32791	673	9.0	8.9	0.1	100	3.5	0.5	4.8	0.3	10.1
Probability(%):																
Fertilizer(F)			48.9	44.7	87.8	8.6	45.9	82.4	83.3	53.6	61.5	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	67.4	0.0	0.0	0.0	43.5	0.0	--	--	--	--	--
F x H			83.8	91.4	41.6	43.1	88.7	73.5	68.6	61.4	57.5	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			NS	NS	NS	1393	NS	NS	NS	NS	NS	--	--	--	--	--
Hybrid (H)			11	1.1	1.0	NS	38	6.5	6.5	NS	3	--	--	--	--	--
F x H			NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Response to Starter Fertilizer in Wisconsin.

Experiment: 12Fertilizer **Trial ID:** 6273 **Year:** 2018
Personnel: Joe Lauer, Thierno Diallo, Kent Kohn.
Location: Valders, WI **County:** Manitowoc
Supported By: HATCH, Wisconsin Fertilizer Research Program

Site Information

Field: N/A **Previous Crop:** Alfalfa **Soil Type:** Kewanee Clay Loam
Soil Test: Date: 10/23/2018 **pH:** 7.2 **OM (%)** 2.9 **P (ppm)** 29 **K (ppm)** 97

Plot Management

Tillage Operations: Field Cultivator Chisel Plow

Fertilizer:	Analysis	Rate	Date
Preplant	N/A	N/A	N/A
Starter	9-11-30-6S-1Zn 10-34-0	200 lbs/A 4.08 gal/A	5/8/2017 5/8/2017
Post plant	28-0-0-5	182 lbs/A	N/A
Manure:	Dairy	10000 gal/A	N/A

Herbicide: Realm Q 4.0 oz/A
Atrazine 1.0 lb/A **Insecticide:** Force 3G 4.4 lbs/A

Hybrid: Factor

Irrigation: None

Planting Date: 5/23/2018 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 32000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/15/2018 **Harvest Method:** Massey 8XP

Notes:

Experimental Design RCB in a split-plot

Replications: 3

Plot Size Seeded: 10' x 25'

Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 32115 plants per acre

Factors/Treatments:

Hybrid (RM):

- 1) Dekalb DKC39-27RIB (89)
- 2) Dekalb DKC52-68RIB (102)
- 3) DuPont Pioneer P9998AMT (99)
- 4) Jung 31DP308 (82)
- 5) Jung 46SS427RIB (96)
- 6) NK Brand N40L-3000GT (98)
- 7) NuTech 5F-504 (104)
- 8) Nu-Tech 5F-510 (109)

Fertilizer:

- 1). UTC
- 2). Pop-up: 10-34-0
- 3). Starter: 9-11-30-6S-1Zn

Results: Table 1812-11

**Table 1812 - 11. Corn Hybrid Response to Starter Fertilizer in Wisconsin.
Valders, 2018**

Treatment number	Fertilizer	Hybrid	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Harvest density plants/A	*AGI \$/A	Lodged			Plant					
								Total %	Stalk %	Root %	height in	N %	P %	K %	S %	DM gr
	Pop-up		222	24.4	54.2	31282	720	2.5	2.4	0.1	103	--	--	--	--	--
	Starter		226	24.1	54.4	32086	737	3.9	3.9	0.1	103	--	--	--	--	--
	UTC		235	24.6	54.0	32978	765	1.3	1.3	0.0	106	--	--	--	--	--
		Dekalb DKC39-27RIB	205	21.1	54.5	31688	683	4.1	4.1	0.0	101	--	--	--	--	--
		Dekalb DKC52-68RIB	249	28.0	51.8	32399	794	1.1	0.9	0.1	103	--	--	--	--	--
		DuPont Pioneer P9998AMT	237	25.3	53.3	32912	768	1.1	1.1	0.0	100	--	--	--	--	--
		Jung 31DP308	173	18.7	57.3	31397	582	8.5	8.5	0.0	100	--	--	--	--	--
		Jung 46SS427RIB	238	21.9	54.4	33417	788	1.6	1.6	0.0	102	--	--	--	--	--
		NK Brand N40L-3000GT	225	25.1	53.9	31439	731	2.0	2.0	0.0	106	--	--	--	--	--
		Nu-Tech 5F-510	247	29.3	54.4	32070	782	1.1	1.1	0.0	112	--	--	--	--	--
		NuTech 5F-504	246	25.6	54.4	31601	797	1.4	1.2	0.2	109	--	--	--	--	--
1	UTC	Jung 31DP308	187	19.2	57.1	32807	629	2.9	2.9	0.0	103	3.8	0.4	3.7	0.3	4.1
5	UTC	Dekalb DKC39-27RIB	211	21.3	53.6	33186	702	1.1	1.1	0.0	106	3.5	0.4	2.8	0.3	5.1
7	UTC	Jung 46SS427RIB	245	21.4	54.2	35353	815	1.2	1.2	0.0	105	3.8	0.4	3.4	0.4	5.3
8	UTC	NK Brand N40L-3000GT	221	26.4	53.3	30176	711	2.1	2.1	0.0	105	3.5	0.4	3.5	0.4	5.9
9	UTC	DuPont Pioneer P9998AMT	249	25.3	53.2	34722	808	0.0	0.0	0.0	102	3.5	0.4	2.8	0.4	5.6
10	UTC	Dekalb DKC52-68RIB	249	27.9	51.9	32828	794	1.2	1.2	0.0	105	3.7	0.4	2.9	0.3	4.7
11	UTC	NuTech 5F-504	252	25.7	54.7	32429	816	0.6	0.6	0.0	109	3.4	0.4	3.1	0.4	4.0
13	UTC	Nu-Tech 5F-510	266	29.3	54.4	32323	843	1.6	1.6	0.0	113	4.0	0.4	3.1	0.4	4.3
17	Pop-up	Jung 31DP308	155	18.4	56.7	31275	522	9.8	9.8	0.0	95	3.3	0.3	3.2	0.3	5.9
21	Pop-up	Dekalb DKC39-27RIB	197	20.9	55.3	29997	654	2.1	2.1	0.0	98	3.4	0.4	2.5	0.4	6.5
23	Pop-up	Jung 46SS427RIB	236	22.0	55.1	32702	782	1.5	1.5	0.0	104	3.1	0.3	2.3	0.4	4.9
24	Pop-up	NK Brand N40L-3000GT	228	25.2	54.0	31060	740	1.2	1.2	0.0	106	3.4	0.3	2.9	0.4	6.9
25	Pop-up	DuPont Pioneer P9998AMT	221	25.9	52.9	31565	716	2.0	2.0	0.0	96	3.2	0.3	2.2	0.4	4.2
26	Pop-up	Dekalb DKC52-68RIB	255	27.9	51.4	31818	813	0.4	0.4	0.0	102	4.0	0.4	2.9	0.4	6.3
27	Pop-up	NuTech 5F-504	245	26.0	53.9	30905	792	1.2	0.6	0.6	113	3.1	0.3	2.5	0.3	5.2
29	Pop-up	Nu-Tech 5F-510	235	29.4	54.5	30934	744	1.6	1.6	0.0	111	3.8	0.3	2.7	0.3	6.7
33	Starter	Jung 31DP308	176	18.4	58.1	30110	593	12.7	12.7	0.0	100	3.4	0.4	3.5	0.4	6.5
37	Starter	Dekalb DKC39-27RIB	208	21.1	54.7	31881	692	9.0	9.0	0.0	99	3.7	0.3	3.5	0.3	3.8
39	Starter	Jung 46SS427RIB	232	22.2	53.8	32197	767	2.0	2.0	0.0	97	3.2	0.3	3.6	0.4	6.3
40	Starter	NK Brand N40L-3000GT	227	23.8	54.3	33080	743	2.6	2.6	0.0	107	3.4	0.3	3.9	0.4	5.8
41	Starter	DuPont Pioneer P9998AMT	240	24.8	53.8	32449	781	1.2	1.2	0.0	103	3.5	0.3	3.2	0.4	4.3
42	Starter	Dekalb DKC52-68RIB	243	28.2	52.0	32551	774	1.6	1.2	0.4	102	3.3	0.4	3.3	0.4	6.3
43	Starter	NuTech 5F-504	241	25.0	54.5	31468	784	2.4	2.4	0.0	105	3.2	0.3	3.4	0.3	5.1
45	Starter	Nu-Tech 5F-510	240	29.4	54.3	32954	760	0.0	0.0	0.0	112	3.2	0.4	3.1	0.4	5.5
Mean			228	24.4	54.2	32115	741	2.6	2.5	0.0	104	3.5	0.4	3.1	0.4	5.4
Probability(%):																
Fertilizer(F)			21.4	64.4	75.4	11.3	22.6	10.0	10.8	58.4	32.3	--	--	--	--	--
Hybrid (H)			0.0	0.0	0.0	13.8	0.0	0.4	0.4	47.4	0.0	--	--	--	--	--
F x H			91.0	65.7	91.5	26.7	89.7	27.2	27.0	33.0	64.2	--	--	--	--	--
LSD(0.10):																
Fertilizer(F)			NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--
Hybrid (H)			18	1.0	1.1	NS	60	2.5	2.5	NS	5	--	--	--	--	--
F x H			NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--

*AGI: Adjusted Gross Income.

Table 1812 - 12. Corn Hybrid Response to Starter Fertilizer in Wisconsin - Soil analysis.

Arlington, 2018												
Location	OM			pH			P			K		
	%	CV	STDDEV	%	CV	STDDEV	%	CV	STDDEV	%	CV	STDDEV
Arlington, WI	3.48	4.33	0.15	6.25	1.57	0.10	36.50	18.32	6.68	106.17	11.78	12.50
Chippewa Falls, WI	2.52	2.91	0.07	6.34	1.53	0.09	33.54	15.97	5.35	146.30	27.21	39.81
Coleman, WI	1.30	2.51	0.03	5.97	1.11	0.06	56.50	4.84	2.73	131.77	9.06	11.94
Fond du Lac, WI	2.52	6.67	0.16	6.51	4.64	0.30	20.93	22.36	4.68	109.60	6.29	6.89
Galesville, WI	3.21	2.25	0.07	5.23	5.03	0.26	26.97	17.24	4.64	148.60	8.11	12.05
Hancock, WI	0.95	9.06	0.08	5.71	0.62	0.03	61.84	5.17	3.19	105.50	12.38	13.06
Janesville, WI	3.01	1.17	0.03	6.00	1.21	0.07	28.83	19.86	5.72	92.80	16.20	15.03
Marshfield, WI	2.79	5.23	0.14	6.14	4.00	0.24	30.40	16.67	5.06	84.97	17.06	14.49
Montfort, WI	2.94	2.47	0.07	6.84	3.75	0.25	40.84	2.18	0.89	161.73	1.95	3.14
Seymour, WI	2.26	15.36	0.34	6.91	1.75	0.12	25.31	19.95	5.05	146.40	5.94	8.69
Valders, WI	2.95	5.36	0.15	7.24	0.29	0.02	28.93	19.56	5.66	97.13	8.92	8.66
Overall STD			0.76			0.57			13.12			29.00

**Table: 1812-13. Hybrid Maturity - Corn Leaf Development.
Arlington, WI - 2018.**

Hybrid	Observation date day of year	Leaf Development			Plant height inches
		Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
Dairyland DS9686		11.6	12.0	13.8	64.3
Dekalb DKC31-10		12.4	13.8	14.7	62.4
Dekalb DKC39-27RIB		11.9	11.7	13.8	61.7
Dekalb DKC52-68RIB		11.6	11.7	13.8	63.7
Dekalb DKC62-20RIB		11.0	11.4	13.2	65.3
Dekalb DKC65-95RIB		11.5	15.4	14.0	61.1
DuPont Pioneer P9998AMT		10.9	11.2	13.1	64.7
Jung 31DP308		12.3	13.4	14.5	59.7
Jung 46SS427RIB		11.4	11.7	13.6	64.0
Munson 4877-3010		11.6	11.9	14.0	65.2
NK Brand N27P-3110A		11.2	11.2	13.3	62.3
NK Brand N40L-3000GT		11.5	13.1	14.1	61.8
NK Brand N66V-3120EZ1		11.8	12.3	14.3	68.1
Nu-Tech 5F-510		11.2	12.2	13.5	63.3
NuTech 5F-504		11.3	11.5	13.5	67.1
Renk RK717SSTX		10.9	11.7	13.1	63.3
	149	4.5	5.4	6.1	9.4
	163	6.5	8.8	10.2	26.9
	176	10.3	13.1	14.9	62.7
	190	16.9	15.9	18.3	105.8
	204	19.3	18.1	19.3	113.3
Dairyland DS9686	149	4.7	5.7	6.2	9.0
Dekalb DKC31-10	149	5.0	6.7	7.0	9.3
Dekalb DKC39-27RIB	149	4.5	5.2	6.0	10.8
Dekalb DKC52-68RIB	149	4.5	5.3	6.3	10.1
Dekalb DKC62-20RIB	149	4.5	5.0	5.5	9.0
Dekalb DKC65-95RIB	149	4.5	5.2	6.2	9.0
DuPont Pioneer P9998AMT	149	4.3	5.2	6.0	8.5
Jung 31DP308	149	4.7	6.0	6.7	9.7
Jung 46SS427RIB	149	4.7	5.3	6.2	9.8
Munson 4877-3010	149	4.5	5.3	6.2	9.8
NK Brand N27P-3110A	149	4.3	4.5	5.2	9.0
NK Brand N40L-3000GT	149	4.5	5.5	6.2	7.8
NK Brand N66V-3120EZ1	149	4.8	6.0	6.7	10.3
Nu-Tech 5F-510	149	4.3	5.5	6.2	9.7
NuTech 5F-504	149	4.3	5.2	6.2	10.0
Renk RK717SSTX	149	4.3	4.8	5.5	8.7

Continued

Table: 1812-13. Hybrid Maturity - Corn Leaf Development.
Arlington, WI - 2018.

(continued)

Hybrid	Observation date	Leaf Development			Plant height
		Leaf	Hail adjusters	Total	
		collars	method	leaves	
	day of year	no./plant	no./plant	no./plant	inches
Dairyland DS9686	163	6.5	9.3	10.3	26.3
Dekalb DKC31-10	163	7.0	10.5	12.0	30.0
Dekalb DKC39-27RIB	163	7.0	8.7	10.3	27.7
Dekalb DKC52-68RIB	163	6.5	8.7	9.8	26.3
Dekalb DKC62-20RIB	163	6.2	8.2	9.5	26.5
Dekalb DKC65-95RIB	163	6.3	9.0	10.2	23.5
DuPont Pioneer P9998AMT	163	6.3	7.8	9.7	26.7
Jung 31DP308	163	7.2	9.3	11.2	25.8
Jung 46SS427RIB	163	6.3	8.7	10.0	30.2
Munson 4877-3010	163	6.5	9.0	10.5	26.3
NK Brand N27P-3110A	163	6.2	8.3	9.7	24.5
NK Brand N40L-3000GT	163	6.3	9.3	10.5	24.2
NK Brand N66V-3120EZ1	163	6.8	9.2	10.5	28.5
Nu-Tech 5F-510	163	6.0	8.8	9.7	26.2
NuTech 5F-504	163	6.3	7.8	10.0	29.7
Renk RK717SSTX	163	6.2	8.3	9.8	27.5
Dairyland DS9686	176	10.5	13.3	15.2	65.0
Dekalb DKC31-10	176	12.3	15.7	17.0	68.7
Dekalb DKC39-27RIB	176	11.0	13.2	15.2	61.7
Dekalb DKC52-68RIB	176	10.2	12.8	14.7	62.0
Dekalb DKC62-20RIB	176	9.2	12.2	14.0	64.2
Dekalb DKC65-95RIB	176	9.8	12.8	14.8	55.2
DuPont Pioneer P9998AMT	176	9.7	12.2	14.3	62.8
Jung 31DP308	176	11.7	14.2	16.7	65.0
Jung 46SS427RIB	176	10.0	13.3	15.0	63.8
Munson 4877-3010	176	10.3	13.0	15.0	64.2
NK Brand N27P-3110A	176	9.8	12.3	13.7	58.0
NK Brand N40L-3000GT	176	10.2	14.3	15.3	58.0
NK Brand N66V-3120EZ1	176	10.0	13.0	15.0	66.2
Nu-Tech 5F-510	176	9.8	12.8	14.3	59.7
NuTech 5F-504	176	10.0	12.2	14.2	68.3
Renk RK717SSTX	176	9.7	12.5	14.2	60.7
Dairyland DS9686	190	17.3	15.7	18.7	109.5
Dekalb DKC31-10	190	18.7	18.7	18.7	102.8
Dekalb DKC39-27RIB	190	18.2	15.5	18.5	102.2
Dekalb DKC52-68RIB	190	17.0	15.3	18.5	105.8
Dekalb DKC62-20RIB	190	15.7	15.0	17.7	107.2
Dekalb DKC65-95RIB	190	16.5	15.8	18.7	100.8
DuPont Pioneer P9998AMT	190	15.8	15.0	17.0	109.2
Jung 31DP308	190	18.8	18.8	18.8	100.3

Continued

Table: 1812-13. Hybrid Maturity - Corn Leaf Development.
 (continued) **Arlington, WI - 2018.**

Hybrid	Observation date day of year	Leaf Development			Plant height inches
		Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
		Jung 46SS427RIB	190	17.2	
Munson 4877-3010	190	17.5	15.7	19.0	110.5
NK Brand N27P-3110A	190	16.0	14.8	18.0	103.8
NK Brand N40L-3000GT	190	17.0	17.3	18.7	107.3
NK Brand N66V-3120EZ1	190	16.5	14.3	18.7	111.7
Nu-Tech 5F-510	190	16.0	15.7	17.7	103.5
NuTech 5F-504	190	16.3	15.5	17.8	106.8
Renk RK717SSTX	190	15.8	15.8	17.7	106.5
Dairyland DS9686	204	18.8	16.2	18.8	111.5
Dekalb DKC31-10	204	18.8	17.5	18.8	101.2
Dekalb DKC39-27RIB	204	19.0	15.8	19.0	106.2
Dekalb DKC52-68RIB	204	19.7	16.5	19.7	114.0
Dekalb DKC62-20RIB	204	19.3	16.5	19.3	119.5
Dekalb DKC65-95RIB	204	20.2	34.0	20.2	116.8
DuPont Pioneer P9998AMT	204	18.3	15.7	18.3	116.3
Jung 31DP308	204	19.0	18.8	19.0	97.7
Jung 46SS427RIB	204	18.7	15.8	18.7	111.5
Munson 4877-3010	204	19.3	16.5	19.3	115.2
NK Brand N27P-3110A	204	19.8	15.8	19.8	116.2
NK Brand N40L-3000GT	204	19.7	19.2	19.7	111.5
NK Brand N66V-3120EZ1	204	20.7	18.8	20.7	123.7
Nu-Tech 5F-510	204	19.7	18.2	19.7	117.5
NuTech 5F-504	204	19.5	16.8	19.5	120.5
Renk RK717SSTX	204	18.5	16.8	18.5	113.0
Mean		11.5	12.3	13.8	63.6

Probability(%)

Hybrid(H)	0.0	6.2	0.0	0.0
Sample DOY (S)	0.0	0.0	0.0	0.0
H x S	0.0	40.4	0.0	0.0

LSD(0.10)

Hybrid(H)	0.3	2.1	0.3	1.8
Sample DOY (S)	0.2	1.2	0.2	1.0
H x S	0.7	NS	0.7	4.0