

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Growth and Development
Experiment: 01GD **Trial ID:** 6428 **Year:** 2020
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS408 **Previous Crop:** Alfalfa **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/1 /20 **pH** 6.1 **OM (%)** 2.8 **P (ppm)** 60 **K (ppm)** 119

Plot Management

Tillage Operations: Field Cultivator

Fertilizer: **Preplant Analysis:** 32-0-0 **Rate lbs/A:** 113 **Date:** N/A
Starter Analysis: 9-11-30-6S-1Z **Rate lbs/A:** 200 lbs/ **Date:** 4 /28/20
Post plant Analysis N/A **Rate lbs/A:** N/A **Date:** N/A
Manure: 13543 gal/A

Herbicide: Resicore 80 oz/A **Insecticide:** Force 3G 4.4 lbs/A
Irrigation: None **Hybrid:** Factor

Planting Date: 4/28/20 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 35000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/9/15 **Harvest Method:** Massey 8XP

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.3 acre
Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 33587 plants per acre

Factors/Treatments:

Hybrid (RM):

- | | |
|--------------------------------|----------------------------------|
| 1) Dekalb DKC31-10 (81) | 9) LG Seeds LG5465 VT2PRIB (97) |
| 2) Legacy L2347VT2PRIB (83) | 10) ProHarvest 4990VT2PRIB (99) |
| 3) Renk RK287VT2P (85) | 11) Federal 5280VT2P (103) |
| 4) Jung 36DP318 (86) | 12) Wyffels W4196RIB (105) |
| 5) Jung 39DP338 (89) | 13) AgriGold A638-74VT2RIB (108) |
| 6) NK Brand NK9175-3110A (91) | 14) FS InVision 60UX1RIB (110) |
| 7) ProHarvest 4340VT2PRIB (93) | 15) AgriGold A642-47STX (112) |
| 8) Dairyland DS-3550AM (95) | 16) Dekalb DKC65-94 (115) |
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Results: Table 2001-01 & 2001-02.

**Table: 2001-01. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2020.**

Hybrid	Relative maturity	Grain yield bu/A	Grain moisture %	Test wt lb/bu	Lodged			AGI \$/A	Silking day
					Total %	Stalk %	Root %		
Dekalb DKC31-10	81	158	15.2	58	10	0	10	530	190
Legacy L2347VT2PRIB	83	214	15.7	60	9	0	9	717	192
Renk RK287VT2P	85	210	16.9	58	17	0	17	697	194
Jung 36DP318	86	224	17.0	59	14	1	12	744	193
Jung 39DP338	89	245	15.3	56	7	2	5	820	193
NK Brand NK9175-3110A	91	117	18.6	59	79	0	79	384	195
ProHarvest 4340VT2PRIB	93	241	17.6	58	10	0	10	796	197
Dairyland DS-3550AM	95	270	17.7	55	3	0	3	893	196
LG Seeds LG5465 VT2PRIB	97	258	18.6	59	6	0	6	847	198
ProHarvest 4990VT2PRIB	99	255	18.2	59	10	0	10	842	198
Federal 5280VT2P	103	257	18.4	56	17	0	17	847	199
Wyffels W4196RIB	105	291	23.4	56	1	0	1	930	198
AgriGold A638-74VT2RIB	108	263	24.9	56	4	0	4	831	203
FS InVision 60UX1RIB	110	245	25.5	55	36	0	36	773	203
AgriGold A642-47STX	112	240	30.8	53	17	0	17	731	204
Dekalb DKC65-94	115	263	29.3	54	17	0	17	810	203
Mean		235	20.2	57	16	0	16	762	197
<u>Probability(%)</u>									
Hybrid (H)		0.0	0.0	0.0	0.0	14.1	0.0	0.0	0.0
<u>LSD(0.10)</u>									
Hybrid (H)		21	2.0	2	13	NS	13	69	1

**Table: 2001-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2020.**

Hybrid	Relative maturity	Day of year	Leaf Development			Plant height
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
		153	2.3	4.0	4.4	4.9
		167	5.9	7.8	10.0	19.1
		181	10.3	12.4	14.7	58.2
		195	16.8	17.1	17.8	104.6
		209	19.0	19.0	19.0	112.0
Dekalb DKC31-10	81		10.8	11.8	13.1	62.5
LG Seeds LG5465 VT2PRIB	83		11.1	12.3	13.3	59.8
Renk RK287VT2P	85		11.2	12.2	13.6	62.1
Jung 36DP318	86		11.0	12.1	13.1	61.0
Jung 39DP338	89		11.6	12.7	13.6	60.5
NK Brand NK9175-3110A	91		10.3	11.3	12.4	52.9
ProHarvest 4340VT2PRIB	93		10.8	12.0	13.0	59.2
Dairyland DS-3550AM	95		10.8	12.1	13.3	61.4
Legacy L2347VT2PRIB	97		11.2	12.5	13.5	59.5
ProHarvest 4990VT2PRIB	99		11.1	12.3	13.6	62.1
FS InVision 60UX1RIB	103		10.8	11.9	13.0	55.3
Wyffels W4196RIB	105		10.5	11.8	12.8	62.4
AgriGold A638-74VT2RIB	108		9.6	11.0	12.0	63.2
Federal 5280VT2P	110		11.1	12.1	13.6	61.9
AgriGold A642-47STX	112		11.2	12.5	13.8	57.0
Dekalb DKC65-94	115		10.7	12.2	13.3	55.5
Dekalb DKC31-10	81	153	2.2	4.0	4.7	5.4
LG Seeds LG5465 VT2PRIB	83	153	2.5	4.0	4.3	5.2
Renk RK287VT2P	85	153	2.7	4.0	5.0	5.7
Jung 36DP318	86	153	2.5	4.0	4.7	5.2
Jung 39DP338	89	153	3.0	4.5	5.0	5.3
NK Brand NK9175-3110A	91	153	2.0	3.7	4.0	4.7
ProHarvest 4340VT2PRIB	93	153	2.0	3.7	4.0	4.5
Dairyland DS-3550AM	95	153	2.8	4.2	5.0	4.8
Legacy L2347VT2PRIB	97	153	2.7	4.2	4.8	5.5
ProHarvest 4990VT2PRIB	99	153	2.7	4.0	4.5	5.2
FS InVision 60UX1RIB	103	153	1.8	3.8	3.8	3.8
Wyffels W4196RIB	105	153	2.0	4.0	4.0	5.0
AgriGold A638-74VT2RIB	108	153	2.0	4.0	4.2	4.7
Federal 5280VT2P	110	153	2.5	4.0	4.8	5.4
AgriGold A642-47STX	112	153	2.0	4.0	4.0	4.3
Dekalb DKC65-94	115	153	1.7	3.3	3.8	4.0

continued

Table: 2001-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2020.

(continued)

Hybrid	Relative maturity	Day of year	Leaf Development			Plant height
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
Dekalb DKC31-10	81	167	6.0	7.5	10.3	18.5
LG Seeds LG5465 VT2PRIB	83	167	5.8	7.8	10.0	20.5
Renk RK287VT2P	85	167	5.8	7.8	10.5	19.7
Jung 36DP318	86	167	6.3	8.7	10.7	19.3
Jung 39DP338	89	167	7.0	9.0	11.3	21.0
NK Brand NK9175-3110A	91	167	6.0	7.8	9.3	18.7
ProHarvest 4340VT2PRIB	93	167	5.8	7.7	9.7	18.3
Dairyland DS-3550AM	95	167	6.0	8.0	10.3	18.7
Legacy L2347VT2PRIB	97	167	6.0	8.5	11.0	20.8
ProHarvest 4990VT2PRIB	99	167	6.0	7.7	10.3	19.5
FS InVision 60UX1RIB	103	167	5.8	7.2	9.0	18.0
Wyffels W4196RIB	105	167	5.7	7.8	9.3	17.8
AgriGold A638-74VT2RIB	108	167	5.2	7.0	9.2	19.2
Federal 5280VT2P	110	167	6.0	7.8	10.2	21.3
AgriGold A642-47STX	112	167	6.0	7.5	10.0	18.3
Dekalb DKC65-94	115	167	5.7	7.5	9.5	16.0
Dekalb DKC31-10	81	181	10.3	11.8	14.8	61.5
LG Seeds LG5465 VT2PRIB	83	181	10.7	13.3	15.2	57.0
Renk RK287VT2P	85	181	10.7	12.3	15.0	59.0
Jung 36DP318	86	181	11.0	12.8	15.2	62.3
Jung 39DP338	89	181	11.7	13.7	15.5	60.2
NK Brand NK9175-3110A	91	181	9.8	11.0	13.7	57.3
ProHarvest 4340VT2PRIB	93	181	9.8	12.5	14.3	53.7
Dairyland DS-3550AM	95	181	10.3	13.0	15.0	59.3
Legacy L2347VT2PRIB	97	181	11.2	13.8	15.7	61.5
ProHarvest 4990VT2PRIB	99	181	10.2	13.0	15.0	59.0
FS InVision 60UX1RIB	103	181	10.0	11.2	14.0	52.3
Wyffels W4196RIB	105	181	10.0	12.3	14.8	63.3
AgriGold A638-74VT2RIB	108	181	9.0	11.7	13.2	62.5
Federal 5280VT2P	110	181	10.2	11.8	14.8	60.7
AgriGold A642-47STX	112	181	10.0	12.3	14.7	54.2
Dekalb DKC65-94	115	181	9.5	12.2	14.0	47.8
Dekalb DKC31-10	81	195	17.7	17.7	17.7	111.8
LG Seeds LG5465 VT2PRIB	83	195	17.0	17.0	17.7	102.8
Renk RK287VT2P	85	195	18.0	18.2	18.5	111.7
Jung 36DP318	86	195	17.5	17.5	17.5	111.2
Jung 39DP338	89	195	18.0	18.0	18.0	107.2
NK Brand NK9175-3110A	91	195	15.7	16.2	17.2	90.3
ProHarvest 4340VT2PRIB	93	195	17.2	17.3	18.2	105.8

continued

Table: 2001-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2020.

(continued)

Hybrid	Relative maturity	Day of year	Leaf Development			Plant height
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
Dairyland DS-3550AM	95	195	16.3	16.8	17.8	109.8
Legacy L2347VT2PRIB	97	195	18.0	18.0	18.0	106.2
ProHarvest 4990VT2PRIB	99	195	17.2	17.5	18.5	108.8
FS InVision 60UX1RIB	103	195	16.2	16.8	17.8	94.3
Wyffels W4196RIB	105	195	16.0	16.0	17.0	109.2
AgriGold A638-74VT2RIB	108	195	13.7	14.2	15.0	104.0
Federal 5280VT2P	110	195	17.2	17.3	18.3	107.2
AgriGold A642-47STX	112	195	16.8	17.7	19.0	100.0
Dekalb DKC65-94	115	195	15.7	17.0	18.3	93.5
Dekalb DKC31-10	81	209	18.0	18.0	18.0	115.5
LG Seeds LG5465 VT2PRIB	83	209	19.3	19.3	19.3	113.7
Renk RK287VT2P	85	209	18.8	18.8	18.8	114.7
Jung 36DP318	86	209	17.7	17.7	17.7	106.8
Jung 39DP338	89	209	18.2	18.2	18.2	108.8
NK Brand NK9175-3110A	91	209	17.8	17.8	17.8	93.3
ProHarvest 4340VT2PRIB	93	209	19.0	19.0	19.0	113.7
Dairyland DS-3550AM	95	209	18.3	18.3	18.3	114.3
Legacy L2347VT2PRIB	97	209	18.0	18.0	18.0	103.3
ProHarvest 4990VT2PRIB	99	209	19.5	19.5	19.5	118.0
FS InVision 60UX1RIB	103	209	20.3	20.3	20.3	108.2
Wyffels W4196RIB	105	209	19.0	19.0	19.0	116.8
AgriGold A638-74VT2RIB	108	209	18.3	18.3	18.3	125.7
Federal 5280VT2P	110	209	19.7	19.7	19.7	115.0
AgriGold A642-47STX	112	209	21.2	21.2	21.2	108.0
Dekalb DKC65-94	115	209	20.8	20.8	20.8	116.2
Mean			10.9	12.1	13.2	59.8
Probability(%)						
Hybrid (H)			0.0	0.0	0.0	0.0
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			0.0	0.0	0.0	0.0
LSD(0.10)						
Hybrid (H)			0.3	0.3	0.3	2.3
Day Of Year (D)			0.2	0.2	0.2	1.3
H x D			0.6	0.7	0.7	5.1

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Growth and Development
Experiment: 01GD **Trial ID:** 6498 **Year:** 2020
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo
Location: Marshfield, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Fenwood Silt Loam
Soil Test: **Date:** 9 /15/20 **pH** 6.9 **OM (%)** 3.3 **P (ppm)** 24 **K (ppm)** 146

Plot Management

Tillage Operations: Field Cultivator

Fertilizer: **Preplant Analysis:** N/A **Rate lbs/A:** N/A **Date:** N/A
Starter Analysis: 9-11-30-6S-1Z **Rate lbs/A:** 200 lbs/ **Date:** 5 /1 /20
Post plant Analysis 30-0-0-2.6S **Rate lbs/A:** 117 **Date:** N/A
Manure: 25 ton

Herbicide: Instigate 6 oz/A **Insecticide:** Force 3G 4.4 lbs/A
 Breakfree 3.8 pt/A **Hybrid:** Factor

Irrigation: None

Planting Date: 5/1/20 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: 35000 plants per acre **Planting Method:** Almaco Precision Planter

Harvest Date: 10/9/15 **Harvest Method:** Massey 8XP

Experimental Design

Design: RCB **Replications:** 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.3 acre
Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 33787 plants per acre

Factors/Treatments:

Hybrid (RM):

- | | |
|--------------------------------|----------------------------------|
| 1) Dekalb DKC31-10 (81) | 9) LG Seeds LG5465 VT2PRIB (97) |
| 2) Legacy L2347VT2PRIB (83) | 10) ProHarvest 4990VT2PRIB (99) |
| 3) Renk RK287VT2P (85) | 11) Federal 5280VT2P (103) |
| 4) Jung 36DP318 (86) | 12) Wyffels W4196RIB (105) |
| 5) Jung 39DP338 (89) | 13) AgriGold A638-74VT2RIB (108) |
| 6) NK Brand NK9175-3110A (91) | 14) FS InVision 60UX1RIB (110) |
| 7) ProHarvest 4340VT2PRIB (93) | 15) AgriGold A642-47STX (112) |
| 8) Dairyland DS-3550AM (95) | 16) Dekalb DKC65-94 (115) |
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Results: Table 2001-03.

**Table: 2001-03. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Marshfield, WI - 2020.**

Hybrid	Relative maturity	Grain yield bu/A	Grain moisture %	Test weight lb/bu				AGI \$3.58 \$/A
					Total %	Stalk %	Root %	
Dekalb DKC31-10	81	203	23.8	53	0	0	0	646
Legacy L2347VT2PRIB	83	210	23.0	53	1	0	0	672
Renk RK287VT2P	85	195	26.6	50	1	1	0	610
Jung 36DP318	86	206	26.3	51	0	0	0	646
Jung 39DP338	89	225	23.6	51	0	0	0	718
NK Brand NK9175-3110A	91	202	25.4	51	0	0	0	636
ProHarvest 4340VT2PRIB	93	209	26.9	49	0	0	0	652
Dairyland DS-3550AM	95	194	32.5	45	1	1	1	585
LG Seeds LG5465 VT2PRIB	97	204	28.7	49	0	0	0	629
ProHarvest 4990VT2PRIB	99	200	27.8	50	1	1	0	622
Federal 5280VT2P	103	208	32.7	48	0	0	0	627
Wyffels W4196RIB	105	205	33.0	48	1	1	0	616
AgriGold A638-74VT2RIB	108	159	41.5	50	3	3	0	449
FS InVision 60UX1RIB	110	148	47.7	50	1	0	1	400
AgriGold A642-47STX	112	149	48.0	49	0	0	0	405
Dekalb DKC65-94	115	138	47.9	52	2	1	1	374
Mean		191	32.2	50	1	1	0	580
<u>Probability(%)</u>								
Hybrid (H)		0.0	0.0	0.0	1.1	0.2	65.5	0.0
<u>LSD(0.10)</u>								
Hybrid (H)		22	3.6	1	1	1	NS	74