

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Growth and Development
Experiment: 01GD **Trial ID:** 6608 **Year:** 2021
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS411 **Previous Crop:** Alfalfa **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/1 /21 **pH** 6.3 **OM (%)** 4 **P (ppm)** 56 **K (ppm)** 75

Plot Management

Tillage Operations: Field Cultivator

Fertilizer: **Preplant Analysis:** 32-0-0 **Rate lbs/A:** 149 **Date:** N/A
Starter Analysis: 9-11-30-6S-1Z **Rate lbs/A:** 200 lbs/ **Date:** 4 /27/21
Post plant Analysis N/A **Rate lbs/A:** N/A **Date:** N/A
Manure: N/A

Herbicide: Resicore 2.5 qt/A **Insecticide:** Force 3G 4.4 lbs/A
Irrigation: None **Hybrid:** Factor

Planting Date: 4/27/21 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/6/21 **Harvest Method:** Massey 8XP

Experimental Design

Design: RCB **Replications:** 3

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

Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 31575 plants per acre

Factors/Treatments:

Hybrid (RM):

- | | |
|----------------------------|----------------------------------|
| 1) Dekalb DKC31-10 (81) | 9) Renk RK579DGV2P (99) |
| 2) Dekalb DKC33-37 (83) | 10) Dekalb DKC51-98RIB (101) |
| 3) Dekalb DKC36-86 (86) | 11) Pioneer P0306Q (103) |
| 4) Pioneer P8736AM (87) | 12) Wyffels W4196RIB (105) |
| 5) Jung 39DP338 (89) | 13) AgriGold A638-74VT2RIB (108) |
| 6) ProHarvest 4255RR2 (92) | 14) Dekalb DKC61-41RIB (111) |
| 7) Dekalb DKC43-75RIB (93) | 15) AgriGold A642-47STX (112) |
| 8) Jung 47DP411 (97) | 16) Dekalb DKC65-94 (115) |
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Results: Table 2101-01 & 2101-02.

**Table: 2101-01. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2021.**

Hybrid	Relative maturity	Grain yield bu/A	Grain moisture %	Test wt lb/bu	Lodged			AGI \$5.22 \$/A	Silking date	Early dent	Kernel Milk			Black layer
					Total %	Stalk %	Root %				75% doy	50% doy	25% doy	
Dekalb DKC31-10RIB	81	197	16.1	60	1	1	0	982	190	222	228	236	240	245
Dekalb DKC33-37RIB	83	198	15.5	59	3	3	0	987	189	223	229	236	241	248
Dekalb DKC36-86RIB	86	195	16.1	56	1	1	0	972	192	226	232	237	242	248
Pioneer P8736AM	87	229	17.2	59	13	13	0	1136	191	225	231	238	241	245
Jung 39DP338	89	231	16.3	58	15	15	0	1147	192	226	232	238	245	250
ProHarvest 4255RR2	92	235	16.9	57	2	2	0	1165	195	229	235	240	245	251
Dekalb DKC43-75RIB	93	231	15.9	57	3	2	2	1152	193	227	234	239	246	250
Jung 47DP411	97	243	18.1	56	7	7	0	1199	194	229	236	244	252	258
Renk RK579DGVT2P	99	252	17.8	56	2	1	1	1244	195	227	236	243	250	257
Dekalb DKC51-98RIB	101	239	17.7	55	0	0	0	1180	195	229	237	244	250	256
Pioneer P0306Q	103	273	19.8	55	2	2	0	1340	195	231	238	247	251	261
Wyffels W4196RIB	105	256	21.2	55	2	2	0	1250	196	228	236	245	251	256
AgriGold A638-74VT2RIB	108	255	21.7	57	0	0	0	1243	198	237	241	249	256	262
Dekalb DKC61-41VT2RIB	111	254	23.6	51	1	1	0	1225	196	236	242	250	254	261
AgriGold A642-47VT2RIB	112	233	23.7	54	6	6	0	1123	199	239	242	253	259	268
Dekalb DKC65-94	115	246	24.2	55	3	3	0	1183	199	238	243	252	258	267
Mean		235	18.9	56	4	4	0	1158	194	229	236	243	249	255
Probability(%)														
Hybrid (H)		0.0	0.0	0.0	11.2	9.2	51.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD(0.10)														
Hybrid (H)		17	1.6	2	NS	8	NS	82	1	2	2	3	3	3

**Table: 2101-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2021.**

Hybrid	Observation		Leaf Development			Plant height
	Relative maturity	Day of year	Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
		146	2.9	4.2	4.9	5.6
		159	5.4	7.3	8.4	15.4
		173	8.9	12.1	13.4	40.3
		187	14.9	16.1	17.5	84.8
		201	19.1	19.1	19.2	111.2
		215	19.1	19.1	19.2	116.4
Dekalb DKC31-10RIB	81		12.2	13.8	14.4	62.8
Dekalb DKC33-37RIB	83		11.6	12.7	13.3	61.2
Dekalb DKC36-86RIB	86		11.3	12.3	13.2	59.4
Pioneer P8736AM	87		11.7	13.0	13.8	64.7
Jung 39DP338	89		11.5	12.7	13.4	61.0
ProHarvest 4255RR2	92		12.1	13.4	14.0	63.0
Dekalb DKC43-75RIB	93		12.1	13.4	14.2	60.0
Jung 47DP411	97		11.8	13.2	13.9	62.3
Renk RK579DGVT2P	99		12.3	13.5	14.4	65.0
Dekalb DKC51-98RIB	101		12.0	13.3	14.1	62.4
Pioneer P0306Q	103		11.0	12.2	13.0	62.0
Wyffels W4196RIB	105		11.7	12.8	13.8	64.7
AgriGold A638-74VT2RIB	108		10.7	11.9	12.6	64.9
Dekalb DKC61-41VT2RIB	111		12.1	13.3	14.1	62.7
AgriGold A642-47VT2RIB	112		11.8	12.8	14.0	59.7
Dekalb DKC65-94	115		11.4	12.8	13.9	60.8
Dekalb DKC31-10RIB	81	146	2.8	4.3	5.3	5.2
Dekalb DKC31-10RIB	81	159	5.7	8.3	9.0	15.7
Dekalb DKC31-10RIB	81	173	9.7	13.7	14.8	41.5
Dekalb DKC31-10RIB	81	187	16.2	17.7	18.7	86.8
Dekalb DKC31-10RIB	81	201	19.3	19.3	19.3	112.3
Dekalb DKC31-10RIB	81	215	19.3	19.3	19.3	115.2
Dekalb DKC33-37RIB	83	146	2.8	4.0	4.3	5.2
Dekalb DKC33-37RIB	83	159	5.3	7.3	8.2	13.8
Dekalb DKC33-37RIB	83	173	8.8	12.2	13.2	41.0
Dekalb DKC33-37RIB	83	187	15.7	16.2	17.3	87.2
Dekalb DKC33-37RIB	83	201	18.3	18.3	18.3	110.2
Dekalb DKC33-37RIB	83	215	18.3	18.3	18.3	109.8

continued

Table: 2101-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2021.

(continued)

Hybrid	Observation		Leaf Development			Plant height
	Relative maturity	Day of year	Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
Dekalb DKC36-86RIB	86	146	2.8	3.7	4.7	6.0
Dekalb DKC36-86RIB	86	159	4.8	6.7	7.7	15.5
Dekalb DKC36-86RIB	86	173	8.5	11.3	13.0	39.5
Dekalb DKC36-86RIB	86	187	15.2	15.7	17.3	81.2
Dekalb DKC36-86RIB	86	201	18.3	18.3	18.3	104.8
Dekalb DKC36-86RIB	86	215	18.3	18.3	18.3	109.2
Pioneer P8736AM	87	146	3.0	4.0	4.8	5.5
Pioneer P8736AM	87	159	5.3	7.7	8.3	15.8
Pioneer P8736AM	87	173	9.2	12.7	14.2	46.0
Pioneer P8736AM	87	187	15.5	16.3	17.8	91.3
Pioneer P8736AM	87	201	18.7	18.7	18.7	113.7
Pioneer P8736AM	87	215	18.7	18.7	18.7	115.7
Jung 39DP338	89	146	2.8	4.5	5.0	6.0
Jung 39DP338	89	159	5.7	7.8	8.8	16.5
Jung 39DP338	89	173	9.5	12.5	13.8	40.0
Jung 39DP338	89	187	15.3	15.7	16.8	88.0
Jung 39DP338	89	201	17.8	17.8	17.8	106.3
Jung 39DP338	89	215	17.8	17.8	17.8	109.3
ProHarvest 4255RR2	92	146	3.0	4.3	5.0	6.7
ProHarvest 4255RR2	92	159	5.7	8.0	8.8	17.5
ProHarvest 4255RR2	92	173	9.3	12.7	13.7	41.0
ProHarvest 4255RR2	92	187	15.3	16.5	17.7	84.7
ProHarvest 4255RR2	92	201	19.5	19.5	19.5	112.0
ProHarvest 4255RR2	92	215	19.5	19.5	19.5	116.2
Dekalb DKC43-75RIB	93	146	2.8	4.8	5.3	5.5
Dekalb DKC43-75RIB	93	159	5.8	7.8	9.2	13.3
Dekalb DKC43-75RIB	93	173	9.8	12.8	14.3	38.3
Dekalb DKC43-75RIB	93	187	15.5	16.2	17.7	85.8
Dekalb DKC43-75RIB	93	201	19.3	19.3	19.3	106.3
Dekalb DKC43-75RIB	93	215	19.3	19.3	19.3	110.8
Jung 47DP411	97	146	2.7	4.5	4.8	5.5
Jung 47DP411	97	159	5.7	7.5	8.3	16.0
Jung 47DP411	97	173	9.0	12.0	13.5	41.0
Jung 47DP411	97	187	15.0	16.5	18.2	82.8
Jung 47DP411	97	201	19.3	19.3	19.3	113.8
Jung 47DP411	97	215	19.3	19.3	19.3	114.7

continued

Table: 2101-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2021.

(continued)

Hybrid	Observation		Leaf Development			Plant height
	Relative maturity	Day of year	Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
Renk RK579DGVT2P	99	146	3.0	4.3	5.3	6.7
Renk RK579DGVT2P	99	159	6.0	7.8	9.0	17.0
Renk RK579DGVT2P	99	173	9.2	12.2	13.7	43.7
Renk RK579DGVT2P	99	187	15.5	16.5	18.3	86.8
Renk RK579DGVT2P	99	201	20.0	20.0	20.0	115.3
Renk RK579DGVT2P	99	215	20.0	20.0	20.0	120.5
Dekalb DKC51-98RIB	101	146	3.0	4.5	5.2	5.7
Dekalb DKC51-98RIB	101	159	5.8	7.5	8.5	15.8
Dekalb DKC51-98RIB	101	173	9.0	12.2	13.5	41.8
Dekalb DKC51-98RIB	101	187	15.0	16.0	18.0	82.8
Dekalb DKC51-98RIB	101	201	19.7	19.7	19.7	112.5
Dekalb DKC51-98RIB	101	215	19.7	19.7	19.7	115.8
Pioneer P0306Q	103	146	3.0	4.2	4.8	5.5
Pioneer P0306Q	103	159	5.0	6.3	7.8	16.0
Pioneer P0306Q	103	173	8.2	11.2	12.3	38.0
Pioneer P0306Q	103	187	13.2	15.0	15.8	81.5
Pioneer P0306Q	103	201	18.3	18.3	18.5	109.2
Pioneer P0306Q	103	215	18.3	18.3	18.5	121.7
Wyffels W4196RIB	105	146	3.0	4.2	5.2	6.2
Wyffels W4196RIB	105	159	5.2	6.8	8.2	18.8
Wyffels W4196RIB	105	173	8.8	11.7	13.2	40.7
Wyffels W4196RIB	105	187	14.5	15.5	17.2	89.5
Wyffels W4196RIB	105	201	19.3	19.3	19.5	113.0
Wyffels W4196RIB	105	215	19.3	19.3	19.5	120.0
AgriGold A638-74VT2RIB	108	146	2.7	3.7	4.3	5.2
AgriGold A638-74VT2RIB	108	159	4.7	6.2	7.5	13.2
AgriGold A638-74VT2RIB	108	173	8.0	11.2	11.7	38.3
AgriGold A638-74VT2RIB	108	187	14.0	15.5	16.5	86.3
AgriGold A638-74VT2RIB	108	201	17.5	17.5	17.7	118.8
AgriGold A638-74VT2RIB	108	215	17.5	17.5	17.7	127.3
Dekalb DKC61-41VT2RIB	111	146	2.7	4.0	4.5	5.0
Dekalb DKC61-41VT2RIB	111	159	5.2	7.0	8.0	13.8
Dekalb DKC61-41VT2RIB	111	173	8.8	12.0	13.2	40.2
Dekalb DKC61-41VT2RIB	111	187	15.2	16.3	17.7	87.0
Dekalb DKC61-41VT2RIB	111	201	20.3	20.3	20.5	111.0
Dekalb DKC61-41VT2RIB	111	215	20.3	20.3	20.5	119.2

continued

Table: 2101-02. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Arlington, WI - 2021.

(continued)

Hybrid	Observation		Leaf Development			Plant height
	Relative maturity	Day of year	Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
AgriGold A642-47VT2RIB	112	146	3.0	4.0	4.7	5.2
AgriGold A642-47VT2RIB	112	159	5.3	6.5	8.2	14.3
AgriGold A642-47VT2RIB	112	173	8.8	11.3	13.0	36.8
AgriGold A642-47VT2RIB	112	187	14.2	15.3	17.8	77.5
AgriGold A642-47VT2RIB	112	201	19.8	19.8	20.2	109.0
AgriGold A642-47VT2RIB	112	215	19.8	19.8	20.2	115.2
Dekalb DKC65-94	115	146	2.8	4.0	4.7	5.3
Dekalb DKC65-94	115	159	5.0	7.0	8.2	13.5
Dekalb DKC65-94	115	173	8.2	11.5	12.7	36.7
Dekalb DKC65-94	115	187	14.0	16.0	17.7	77.5
Dekalb DKC65-94	115	201	19.2	19.2	20.0	110.8
Dekalb DKC65-94	115	215	19.2	19.2	20.0	121.2
Mean			11.7	12.9	13.7	62.3
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	1.7
Day Of Year (D)			0.2	0.2	0.2	1.0
H x D			0.7	0.8	0.8	4.1

FIELD EXPERIMENT HISTORY

Title: Corn Hybrid Growth and Development
Experiment: 01GD **Trial ID:** 6609 **Year:** 2021
Personnel: Joe Lauer, Kent Kohn, Thierno Diallo
Location: Marshfield, WI **County:** Wood
Supported By: HATCH

Site Information

Field: **Previous Crop:** Soybean **Soil Type:** Owen Withee Silt Loam
Soil Test: **Date:** 10/1 /21 **pH** 6.5 **OM (%)** 2.7 **P (ppm)** 30 **K (ppm)** 80

Plot Management

Tillage Operations: Field Cultivator

Fertilizer: **Preplant Analysis:** 18-46-0 **Rate lbs/A:** 23 **Date:** N/A
Starter Analysis: 9-11-30-6S-1Z **Rate lbs/A:** 200 lbs/ **Date:** 5 /10/21
Post plant Analysis 29-0-0-3S **Rate lbs/A:** 119 **Date:** N/A
Manure: N/A

Herbicide: Resicore 2.0 qt/A **Insecticide:** Force 3G 4.4 lbs/A
Irrigation: None **Hybrid:** Factor

Planting Date: 5/10/21 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/19/21 **Harvest Method:** Massey 8XP

Experimental Design

Design: RCB **Replications:** 3

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

Harvest Plot Size: 5' x 23' **Harvest Plant Density:** 32575 plants per acre

Factors/Treatments:

Hybrid (RM):

- | | |
|----------------------------|----------------------------------|
| 1) Dekalb DKC31-10 (81) | 9) Renk RK579DGV2P (99) |
| 2) Dekalb DKC33-37 (83) | 10) Dekalb DKC51-98RIB (101) |
| 3) Dekalb DKC36-86 (86) | 11) Pioneer P0306Q (103) |
| 4) Pioneer P8736AM (87) | 12) Wyffels W4196RIB (105) |
| 5) Jung 39DP338 (89) | 13) AgriGold A638-74VT2RIB (108) |
| 6) ProHarvest 4255RR2 (92) | 14) Dekalb DKC61-41RIB (111) |
| 7) Dekalb DKC43-75RIB (93) | 15) AgriGold A642-47STX (112) |
| 8) Jung 47DP411 (97) | 16) Dekalb DKC65-94 (115) |
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Results: Table 2101-03.

**Table: 2101-03. Determining Corn Hybrid Maturity - Comparison of Hybrids.
Marshfield, WI - 2021.**

Hybrid	Relative maturity	Grain yield bu/A	Grain moisture %	Test weight lb/bu				AGI \$/A
					Total	Stalk	Root	
Dekalb DKC31-10RIB	81	192	19.0	57	0	0	0	947
Dekalb DKC33-37RIB	83	198	21.0	56	2	2	0	968
Dekalb DKC36-86RIB	86	226	21.3	53	0	0	0	1104
Pioneer P8736AM	87	239	22.4	54	0	0	0	1161
Jung 39DP338	89	241	22.3	53	0	0	0	1169
ProHarvest 4255RR2	92	219	23.5	53	1	1	0	1057
Dekalb DKC43-75RIB	93	244	24.1	53	0	0	0	1176
Jung 47DP411	97	246	27.2	52	2	2	0	1168
Renk RK579DGV2P	99	259	26.7	52	0	0	0	1234
Dekalb DKC51-98RIB	101	237	29.5	53	0	0	0	1114
Pioneer P0306Q	103	263	30.0	52	0	0	0	1235
Wyffels W4196RIB	105	278	30.4	53	0	0	0	1302
AgriGold A638-74VT2RIB	108	263	33.1	54	2	0	2	1217
Dekalb DKC61-41VT2RIB	111	273	38.1	52	0	0	0	1240
AgriGold A642-47VT2RIB	112	233	39.4	54	0	0	0	1052
Dekalb DKC65-94	115	240	38.4	54	0	0	0	1088
Mean		241	27.9	53	0	0	0	1140
<u>Probability(%)</u>								
Hybrid (H)		0.0	0.0	0.2	65.4	59.0	48.0	0.0
<u>LSD(0.10)</u>								
Hybrid (H)		20	2.4	1.8	NS	NS	NS	103