

FIELD EXPERIMENT HISTORY

Title: Corn Rootworm Hybrid Comparison Trial
Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2602 **Year:** 2004
Personnel: J.G. Lauer, E. Cullen, P.J. Flannery, and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS504 **Previous Crop:** Corn **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/15/04 **pH:** 6.2 **OM (%):** 3.9 **P (ppm):** 70 **K (ppm):** 159

Plot Management

Tillage Operations: Chisel Plow Disk Field Cultivator Cultivated 6/17/04
Fertilizer: **Preplant :** 82-0-0 **Rate lbs/A:** 195 **Date:** 4 /20/04
 Starter : 9-24-24 150 5 /7 /04
 Post plant : N/A N/A N/A
 Manure: N/A N/A N/A
Herbicide: Dual II 1.5 pt/A **Insecticide:** See Factors
Irrigation: None **Hybrid:** See Factors
Planting Date: 5/7/04 **Planting Depth:** 1.5 **Row Width:** 30
Target Plant Density: See Factors **Planting Method:** Kinze Plot Planter
Harvest Date: 10/20/04 **Harvest Method:** Kincaid Plot Combine
Notes: The ISU 0 to 3 node-injury root rating scale was used. A rating of 0.50 or below is considered acceptable economic root protection. 5 roots per replicate were evaluated.

Experimental Design

Design: Split-Plot **Replications:** 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.43 A
Harvest Plot Size: 5' x 22' **Harvest Plant Density:** 30560

Factors/Treatments:

<u>Hybrids:</u>	<u>Soil Applied Insecticide:</u>
Dekalb DKC5141(RR2/YGRW)	Untreated
Dekalb DKC5701-Conventional	Force 3G @ 4.4 lbs/A
Dekalb DKC5878(YGCB)	
Dekalb DKC6013(RR2/YGRW)	
Dekalb DKC6015-Conventional	

Results: Table C-72.

**Table C-72. Corn Rootworm Hybrid Comparison Trial (Heavy Rootworm Pressure)
Arlington, WI - 2004**

Insecticide	Hybrid	Yield	Moisture	Test weight	Root lodging	Stalk lodging	Harvest pop	Grower return	Root rating
		bu/A	%	lbs/bu	%	%	plants/A	\$/A	0 to 3
	Dekalb DKC5141(RR2/YGRW)	217	21.7	53	0	0	30571	377	0.04
	Dekalb DKC5701	211	25.6	50	28	0	31218	350	0.82
	Dekalb DKC5878(YGCB)	223	27.0	50	3	0	30492	363	0.60
	Dekalb DKC6013(RR2/YGRW)	231	29.3	50	0	0	30162	365	0.04
	Dekalb DKC6015	218	30.1	50	24	0	30360	342	1.10
UTC		218	26.7	50	22	0	31046	356	0.89
Force 3G		221	26.6	50	0	0	30039	362	0.14
UTC	Dekalb DKC5141(RR2/YGRW)	224	21.5	53	0	0	31020	390	0.06
UTC	Dekalb DKC5701	200	26.2	50	55	0	32340	329	1.55
UTC	Dekalb DKC5878(YGCB)	231	26.8	50	6	0	31152	378	0.80
UTC	Dekalb DKC6013(RR2/YGRW)	227	29.5	50	0	0	29964	359	0.07
UTC	Dekalb DKC6015	214	30.5	50	48	0	30756	334	1.97
Force 3G	Dekalb DKC5141(RR2/YGRW)	210	22.0	52	0	0	29898	364	0.01
Force 3G	Dekalb DKC5701	222	25.1	50	0	0	30096	371	0.08
Force 3G	Dekalb DKC5878(YGCB)	218	27.2	50	0	0	29832	354	0.39
Force 3G	Dekalb DKC6013(RR2/YGRW)	233	29.2	50	0	1	30360	370	0.01
Force 3G	Dekalb DKC6015	222	29.7	50	0	0	29964	350	0.23
Mean		220	26.7	50	11	0	30560	359	0.52
Probability(%)									
Insecticide (I)		89.4	75.6	86.0	2.3	66.3	23.3	87.5	2.0
Hybrid (H)		11.4	0.0	0.0	0.0	20.1	87.4	3.5	0.3
I x H		5.2	0.5	0.6	0.0	6.8	79.0	2.3	1.4
LSD(0.10)									
Insecticide (I)		NS	NS	NS	10	NS	NS	NS	0.31
Hybrid (H)		NS	0.4	0	9	NS	NS	19	0.47
I x H		16	0.5	0	12	1	NS	26	0.67
CV(%)									
		5	1	1	76	259	6	5	90

FIELD EXPERIMENT HISTORY

Title: Corn Rootworm Hybrid Comparison Trial
Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2601 **Year:** 2004
Personnel: J.G. Lauer, E. Cullen, P.J. Flannery, and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS407 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/15/04 **pH** 7 **OM (%)** 3.9 **P (ppm)** 69 **K (ppm)** 258

Plot Management

Tillage Operations: Chisel Plow Field Cultivator Soil Finisher Cultivated 6/14/04

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer: Preplant :	46-0-0	325 lbs/A	4 /15/04
Starter :	9-24-24	150 lbs/A	4 /29/04
Post plant :	34-0-0	150 lbs/A	6 /14/04
Manure:	N/A	N/A	N/A

Herbicide: Harness 2.5 pt/A **Insecticide:** See Factors
 Hornet 3.0 oz/A **Hybrid:** See Factors
Irrigation: None

Planting Date: 4/29/04 **Planting Depth:** 1.5" **Row Width:** 30"
Target Plant Density: See Factors **Planting Method:** Kinze Plot Planter
Harvest Date: 10/20/04 **Harvest Method:** Kincaid Plot Combine
Notes: The ISU 0 to 3 node-injury root rating scale was used. A rating of 0.50 or below is considered acceptable economic root protection. 5 roots per replicate were evaluated.

Experimental Design

Design: Split-Plot **Replications:** 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.39 A
Harvest Plot Size: 5' x 22' **Harvest Plant Density:** 30664

Factors/Treatments:

<u>Hybrids:</u>	<u>Soil Applied Insecticide:</u>
Dekalb DKC5141(RR2/YGRW)	Untreated
Dekalb DKC5701-Conventional	Force 3G @ 4.4 lbs/A
Dekalb DKC5878(YGCB)	
Dekalb DKC6013(RR2/YGRW)	
Dekalb DKC6015-Conventional	

Results: Table C-73.

**Table C-73. Corn Rootworm Hybrid Comparison Trial (Light Rootworm Pressure)
Arlington, WI - 2004**

Insecticide	Hybrid	Yield	Moisture	Test weight	Root lodging	Stalk lodging	Harvest pop	Grower return	Root rating
		bu/A	%	lbs/bu	%	%	plants/A	\$/A	0 to 3
	Dekalb DKC5141(RR2/YGRW)	226	20.8	53	0	1	30558	396	0.00
	Dekalb DKC5701	232	25.8	50	0	0	30360	384	0.03
	Dekalb DKC5878(YGCB)	235	27.2	50	0	0	31086	382	0.03
	Dekalb DKC6013(RR2/YGRW)	239	26.7	50	0	0	30360	391	0.01
	Dekalb DKC6015	236	28.0	50	1	0	30954	379	0.05
UTC		234	26.0	50	0	0	30386	385	0.02
Force 3G		233	25.4	51	0	0	30941	388	0.02
UTC	Dekalb DKC5141(RR2/YGRW)	225	20.6	53	0	0	30360	396	0.00
UTC	Dekalb DKC5701	232	25.8	50	0	0	29964	384	0.05
UTC	Dekalb DKC5878(YGCB)	235	27.2	50	0	0	30888	383	0.03
UTC	Dekalb DKC6013(RR2/YGRW)	240	27.6	50	0	0	29436	388	0.01
UTC	Dekalb DKC6015	236	29.1	50	0	0	31284	375	0.01
Force 3G	Dekalb DKC5141(RR2/YGRW)	227	21.1	53	0	1	30756	397	0.00
Force 3G	Dekalb DKC5701	232	25.8	50	0	0	30756	384	0.01
Force 3G	Dekalb DKC5878(YGCB)	234	27.2	50	0	0	31284	381	0.03
Force 3G	Dekalb DKC6013(RR2/YGRW)	238	25.9	50	0	1	31284	394	0.00
Force 3G	Dekalb DKC6015	235	27.0	50	1	0	30624	384	0.04
Mean		234	25.7	51	0	0	30664	386	0.02
Probability(%)									
Insecticide (I)		90.6	0.1	14.8	22.0	43.1	4.5	57.3	57.8
Hybrid (H)		2.2	0.0	0.0	4.5	56.7	88.7	12.3	19.2
I x H		99.0	33.6	39.9	4.5	19.9	73.9	92.6	34.1
LSD(0.10)									
Insecticide (I)		NS	0.2	NS	NS	NS	353	NS	NS
Hybrid (H)		6	1.3	0	0	NS	NS	NS	NS
I x H		NS	NS	NS	1	NS	NS	NS	NS
CV(%)									
		3	5	1	310	155	5	3	157

FIELD EXPERIMENT HISTORY

Title: Corn Rootworm Hybrid Comparison Trial
Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2600 **Year:** 2004
Personnel: J. G. Lauer, E. Cullen, P. J. Flannery and K. D. Kohn
Location: Janesville, WI **County:** Rock
Supported By: HATCH

Site Information

Field: R-5C **Previous Crop:** Corn **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/1 /03 **pH** 6.8 **OM (%)** 3.2 **P (ppm)** 51 **K (ppm)** 170

Plot Management

Tillage Operations: Fall Chisel Plow Field Cultivator (2x) Cultivated 6/20/04

		<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:	Preplant :	28-0-0	160 lbs/A	N/A
	Starter :	6-24-24	150 lbs/A	4 /27/04
	Post plant :	N/A	N/A	N/A
	Manure:	N/A	N/A	N/A

Herbicide: Dual II Magnum 1.8 pt/A **Insecticide:** See Factors
 Hornet 4.0 oz/A **Hybrid:** See Factors

Irrigation: None

Planting Date: 4/27/04 **Planting Depth:** 1.5" **Row Width:** 30"

Target Plant Density: See Factors **Planting Method:** Kinze Plot Planter

Harvest Date: 10/12/04 **Harvest Method:** Kincaid Plot Combine

Notes: The ISU 0 to 3 node-injury root rating scale was used. A rating of 0.50 or below is considered acceptable economic root protection. 5 roots per replicate were evaluated.

Experimental Design

Design: Split-Plot **Replications:** 3
Plot Size Seeded: 10' x 25' **Experiment Size:** 0.32 Acre
Harvest Plot Size: 5' x 22' **Harvest Plant Density:** 29146

Factors/Treatments:

<u>Hybrids:</u>	<u>Soil Applied Insecticide:</u>
Dekalb DKC5141(RR2/YGRW)	Untreated
Dekalb DKC5701-Conventional	Force 3G @ 4.4 lbs/A
Dekalb DKC5878(YGCB)	
Dekalb DKC6013(RR2/YGRW)	
Dekalb DKC6015-Conventional	

Results: Table C-74.

**Table C-74. Corn Rootworm Hybrid Comparison Trial (Normal Rootworm Pressure)
Janesville, WI - 2004**

Insecticide	Hybrid	Yield	Moisture	Test weight	Root lodging	Stalk lodging	Harvest pop	Grower return	Root rating
		bu/A	%	lbs/bu	%	%	plants/A	\$/A	0 to 3
	Dekalb DKC5141(RR2/YGRW)	212	17.6	58	0	0	29238	385	0.00
	Dekalb DKC5701	204	21.1	54	2	1	29172	356	0.62
	Dekalb DKC5878(YGCB)	218	21.6	54	2	1	29634	380	0.82
	Dekalb DKC6013(RR2/YGRW)	229	22.2	53	0	1	28710	395	0.00
	Dekalb DKC6015	216	23.0	53	0	1	28974	369	0.93
UTC		207	21.1	54	2	1	28961	362	0.85
Force 3G		225	21.2	54	0	1	29330	392	0.10
UTC	Dekalb DKC5141(RR2/YGRW)	217	18.2	58	0	0	29172	392	0.00
UTC	Dekalb DKC5701	179	20.7	54	4	0	28512	315	1.19
UTC	Dekalb DKC5878(YGCB)	192	21.6	54	4	0	28908	333	1.38
UTC	Dekalb DKC6013(RR2/YGRW)	240	22.8	53	0	1	29172	412	0.00
UTC	Dekalb DKC6015	207	22.1	53	0	1	29040	357	1.67
Force 3G	Dekalb DKC5141(RR2/YGRW)	208	17.1	58	0	1	29304	379	0.00
Force 3G	Dekalb DKC5701	228	21.6	54	0	1	29832	397	0.05
Force 3G	Dekalb DKC5878(YGCB)	245	21.6	54	0	1	30360	426	0.26
Force 3G	Dekalb DKC6013(RR2/YGRW)	217	21.6	53	0	1	28248	377	0.00
Force 3G	Dekalb DKC6015	225	23.8	52	0	0	28908	381	0.19
Mean		216	21.1	54	1	1	29146	377	0.47
Probability(%)									
	Insecticide (I)	26.8	83.4	22.7	19.0	48.5	30.2	27.8	0.4
	Hybrid (H)	67.1	0.0	0.0	4.2	89.1	68.6	70.2	0.0
	I x H	12.8	15.5	94.9	2.3	50.4	33.1	15.2	0.1
LSD(0.10)									
	Insecticide (I)	NS	NS	NS	NS	NS	NS	NS	0.14
	Hybrid (H)	NS	1.1	1	1	NS	NS	NS	0.29
	I x H	NS	NS	NS	2	NS	NS	NS	0.41
CV(%)									
		13	5	2	155	128	4	13	60