

FIELD EXPERIMENT HISTORY

Title: Corn Rootworm Hybrid Comparison Trial
Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2928 **Year:** 2006
Personnel: J. G. Lauer, E. Cullen, and K. D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS520 **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: Fall Chisel Plow Field Cultivator Cultivated 6/14/06

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	82-0-0	195 lbs/A	N/A
Starter :	9-23-30	150 lbs/A	5 /22/06
Post plant :	N/A	N/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Outlook 20 oz/A **Insecticide:** See Factors
 Hornet 3.0 oz/A **Hybrid:** See Factors

Irrigation: None

Planting Date: 5/22/06 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/23/06 **Harvest Method:** Massey Ferguson 8XP

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:** 29700

Factors/Treatments:

<u>Hybrids:</u>	<u>Soil Applied Insecticide:</u>
Dekalb DKC51-41(RR2YGRW)	Untreated
Dekalb DKC51-45(RR2)	Force 3G @ 4.4 lbs/A
Dekalb DKC58-78(YGCB)	
Dekalb DKC60-13(RR2YGRW)	
Dekalb DKC60-15	

Results: Table C-63.

**Table C-63. Corn Rootworm Hybrid Comparison Trial (Heavy Rootworm Pressure)
Arlington, WI - 2006**

Insecticide	Brand	Hybrid	Traits	Yield	Moisture	Test	Root	Stalk	Grower	Root
				bu/A	%	weight	lodging	lodging	Return	rating
						lbs/bu	%	%	\$/A	0 to 3
	Dekalb	DKC51-41(RR2YGRW)	CR,RR	255	23.4	54.9	1	0	767	0.05
	Dekalb	DKC51-45		217	24.0	54.0	12	0	649	1.29
	Dekalb	DKC58-78(YGCB)	CB	230	29.6	52.4	8	0	662	1.26
	Dekalb	DKC60-13(RR2YGRW)	CR,RR	277	29.2	53.4	3	1	801	0.04
	Dekalb	DKC60-15		237	29.8	52.9	4	7	681	0.85
UTC				233	27.2	53.4	10	3	681	1.01
Force 3G				254	27.1	53.6	1	1	742	0.39
UTC	Dekalb	DKC51-41(RR2YGRW)	CR,RR	254	23.2	54.8	0	0	764	0.10
UTC	Dekalb	DKC51-45		198	24.8	53.6	24	0	588	1.75
UTC	Dekalb	DKC58-78(YGCB)	CB	214	29.6	52.2	16	0	617	1.68
UTC	Dekalb	DKC60-13(RR2YGRW)	CR,RR	277	28.7	53.4	3	0	801	0.06
UTC	Dekalb	DKC60-15		222	29.9	52.9	8	13	638	1.48
Force 3G	Dekalb	DKC51-41(RR2YGRW)	CR,RR	257	23.5	55.0	1	0	770	0.00
Force 3G	Dekalb	DKC51-45		236	23.2	54.3	0	1	709	0.83
Force 3G	Dekalb	DKC58-78(YGCB)	CB	245	29.6	52.5	0	0	707	0.85
Force 3G	Dekalb	DKC60-13(RR2YGRW)	CR,RR	278	29.6	53.5	2	2	801	0.01
Force 3G	Dekalb	DKC60-15		252	29.7	52.8	0	2	724	0.23
Mean				243	27.2	53.5	6	2	712	0.70
Probability(%)										
Insecticide (I)				3.5	69.7	19.1	2.4	15.6	4.2	0.4
Hybrid (H)				0.0	0.0	0.0	6.4	0.0	0.0	0.0
I x H				0.6	36.0	52.7	2.6	0.0	0.4	0.0
LSD(0.10)										
Insecticide (I)				12	NS	NS	4	NS	37	0.11
Hybrid (H)				9	0.5	0.4	7	2	28	0.15
I x H				13	0.6	NS	10	3	39	0.21
CV(%)										
				4	2	1	125	102	4	21

FIELD EXPERIMENT HISTORY

Title: Corn Rootworm Hybrid Comparison Trial
Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2929 **Year:** 2006
Personnel: J. G. Lauer, E. Cullen, and K. D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS427 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/01/06 **pH** 7.1 **OM (%)** 4 **P (ppm)** 88 **K (ppm)** 278

Plot Management

Tillage Operations: Fall Chisel Plow Field Cultivator Soil Finisher Cultivated 6/14/06

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325 lbs/A	4 /20/06
Starter :	9-23-30	150 lbs/A	5 /22/06
Post plant :	N/A	N/A	N/A
Manure:	N/A	N/A	N/A

Herbicide: Outlook 20 oz/A **Insecticide:** See Factors
 Hornet 3.0 oz/A **Hybrid:** See Factors

Irrigation: None

Planting Date: 5/22/06 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/23/06 **Harvest Method:** Massey Ferguson 8XP

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:** 28710

Factors/Treatments:

<u>Hybrids:</u>	<u>Soil Applied Insecticide:</u>
Dekalb DKC51-41(RR2YGRW)	Untreated
Dekalb DKC51-45(RR2)	Force 3G @ 4.4 lbs/A
Dekalb DKC58-78(YGCB)	
Dekalb DKC60-13(RR2YGRW)	
Dekalb DKC60-15	

Results: Table C-64.

**Table C-64. Corn Rootworm Hybrid Comparison Trial (Light Rootworm Pressure)
Arlington, WI - 2006**

Insecticide	Brand	Hybrid	Traits	Yield bu/A	Moisture %	Test	Root	Stalk	Grower	Root
						weight lbs/bu	lodging %	lodging %	Return \$/A	rating 0 to 3
	Dekalb	DKC51-41(RR2YGRW)	CR,RR	235	22.7	54.1	3	4	710	0.00
	Dekalb	DKC51-45		241	23.2	53.6	3	2	725	0.00
	Dekalb	DKC58-78(YGCB)	CB	255	28.5	52.5	1	0	739	0.00
	Dekalb	DKC60-13(RR2YGRW)	CR,RR	249	29.1	53.2	4	7	719	0.00
	Dekalb	DKC60-15		251	30.0	53.0	3	7	720	0.00
UTC				247	27.0	53.4	4	5	724	0.00
Force 3G				245	26.4	53.2	1	3	722	0.00
UTC	Dekalb	DKC51-41(RR2YGRW)	CR,RR	239	23.2	54.1	3	6	719	0.00
UTC	Dekalb	DKC51-45		244	23.9	53.5	6	3	731	0.00
UTC	Dekalb	DKC58-78(YGCB)	CB	256	29.0	52.7	0	1	740	0.01
UTC	Dekalb	DKC60-13(RR2YGRW)	CR,RR	249	29.2	53.5	7	4	717	0.00
UTC	Dekalb	DKC60-15		247	29.8	53.1	5	9	711	0.01
Force 3G	Dekalb	DKC51-41(RR2YGRW)	CR,RR	232	22.2	54.2	2	1	701	0.00
Force 3G	Dekalb	DKC51-45		238	22.6	53.7	0	0	718	0.00
Force 3G	Dekalb	DKC58-78(YGCB)	CB	254	28.1	52.3	1	0	739	0.00
Force 3G	Dekalb	DKC60-13(RR2YGRW)	CR,RR	250	29.0	52.9	0	10	721	0.00
Force 3G	Dekalb	DKC60-15		254	30.1	53.0	1	6	728	0.00
Mean				246	26.7	53.3	3	4	723	0.00
<u>Probability(%)</u>										
Insecticide (I)				82.5	3.2	33.9	9.5	75.6	92.4	43.4
Hybrid (H)				0.4	0.0	0.0	88.5	3.7	28.6	42.5
I x H				51.6	44.3	3.2	63.6	26.0	66.1	42.5
<u>LSD(0.10)</u>										
Insecticide (I)				NS	0.3	NS	3	NS	NS	NS
Hybrid (H)				8	0.8	0.2	NS	4	NS	NS
I x H				NS	NS	0.3	NS	NS	NS	NS
<u>CV(%)</u>										
				3	3	0	202	101	3	288

FIELD EXPERIMENT HISTORY

Title: Corn Rootworm Hybrid Comparison Trial
Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2930 **Year:** 2006
Personnel: J. G. Lauer, E. Cullen, 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** 6.7 **OM (%)** 3.3 **P (ppm)** 62 **K (ppm)** 188

Plot Management

Tillage Operations: Fall Chisel Plow Field Cultivator Cultivated 6/12/06

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	28-0-0	535 lbs/A	N/A
Starter :	9-23-30	150 lbs/A	4 /25/06
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: 4/25/06 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/16/06 **Harvest Method:** Massey Ferguson 8XP

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:** 27562

Factors/Treatments:

<u>Hybrids:</u>	<u>Soil Applied Insecticide:</u>
Dekalb DKC51-41(RR2YGRW)	Untreated
Dekalb DKC51-45(RR2)	Force 3G @ 4.4 lbs/A
Dekalb DKC58-78(YGCB)	
Dekalb DKC60-13(RR2YGRW)	
Dekalb DKC60-15	

Results: Table C-65.

**Table C-65. Corn Rootworm Hybrid Comparison Trial (Normal Rootworm Pressure)
Janesville, WI - 2006**

Insecticide	Brand	Hybrid	Traits	Yield bu/A	Moisture %	Test	Root	Stalk	Grower	Root
						weight lbs/bu	lodging %	lodging %	Return \$/A	rating 0 to 3
	Dekalb	DKC51-41(RR2YGRW)	CR,RR	202	18.8	56.6	1	0	626	0.01
	Dekalb	DKC51-45		166	17.7	56.7	13	0	517	0.89
	Dekalb	DKC58-78(YGCB)	CB	169	22.8	53.4	14	0	510	0.98
	Dekalb	DKC60-13(RR2YGRW)	CR,RR	220	26.3	54.4	2	0	647	0.04
	Dekalb	DKC60-15		198	26.5	54.0	9	0	582	0.32
UTC				182	22.5	55.1	15	0	549	0.77
Force 3G				200	22.3	54.9	0	0	604	0.13
UTC	Dekalb	DKC51-41(RR2YGRW)	CR,RR	197	18.9	56.7	1	0	609	0.02
UTC	Dekalb	DKC51-45		149	17.5	56.9	27	0	465	1.58
UTC	Dekalb	DKC58-78(YGCB)	CB	150	23.3	53.3	27	0	451	1.54
UTC	Dekalb	DKC60-13(RR2YGRW)	CR,RR	233	26.4	54.8	5	0	687	0.07
UTC	Dekalb	DKC60-15		182	26.6	54.0	17	0	534	0.63
Force 3G	Dekalb	DKC51-41(RR2YGRW)	CR,RR	208	18.7	56.5	1	0	644	0.00
Force 3G	Dekalb	DKC51-45		183	18.0	56.6	0	0	568	0.20
Force 3G	Dekalb	DKC58-78(YGCB)	CB	188	22.3	53.4	0	0	569	0.43
Force 3G	Dekalb	DKC60-13(RR2YGRW)	CR,RR	206	26.1	54.0	0	0	607	0.00
Force 3G	Dekalb	DKC60-15		214	26.5	54.0	0	0	631	0.01
Mean				191	22.4	55.0	8	0	576	0.45
<u>Probability(%)</u>										
Insecticide (I)				25.4	60.2	42.8	2.8	-	24.9	1.8
Hybrid (H)				0.0	0.0	0.0	0.7	-	0.1	0.0
I x H				3.4	39.5	72.3	0.4	-	3.7	0.2
<u>LSD(0.10)</u>										
Insecticide (I)				NS	NS	NS	8	-	NS	0.25
Hybrid (H)				18	0.7	0.6	6	-	55	0.29
I x H				26	NS	NS	9	-	78	0.41
<u>CV(%)</u>										
				10	3	1	79	-	10	64