FIELD EXPERIMENT HISTORY

Title: **Corn Rootworm Hybrid Comparison Trial**

Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2682 **Year:** 2005

Personnel: J.G. Lauer, E. Cullen, P.J. Flannery, and K.D. Kohn

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

Supported By: HATCH

Site Information

Field: ARS505 **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 Cultivated 6/9/05

		Analysis:	Rate lbs/A:	Date:
Fertilizer:	**Preplant :**	82-0-0	195 lbs/A	N/A
	Starter :	9-24-24	150 lbs/A	4 /28/05
	Post plant :	N/A	N/A	N/A
	Manure:	N/A	N/A	N/A

Herbicide: Roundup Weather Max 21 oz/A **Insecticide:** See Factors

Irrigation: None **Hybrid:** See Factors

Planting Date: 4/28/05 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/21/05 **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.

Trial was incorrectly sprayed with Round-up Weather Max resulting in death of non-RR hybrids. Filler corn was replanted to provide competition.

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:** 29066

Factors/Treatments:

Hybrids:	Soil Applied Insecticide:
Dekalb DKC51-41(RR2YGRW)	Untreated
Dekalb DKC51-45(RR2)	Force 3G @ 4.4 lbs/A
Dekalb DKC60-13(RR2YGRW)	

Results: Table C-65.

Table C-65. Corn Rootworm Hybrid Comparison Trial (Heavy Rootworm Pressure) Arlington, WI - 2005

Insecticide	Brand	Hybrid	Yield	Moisture	Test weight	Root lodging	Stalk lodging	Grower Return	Root rating
			bu/A	%	lbs/bu	%	%	$/A	0 to 3
	Dekalb	DKC51-41(RR2YGRW)	261	18.7	60	4	2	409	0.01
	Dekalb	DKC51-45(RR2)	252	18.8	60	4	0	394	0.23
	Dekalb	DKC60-13(RR2YGRW)	273	22.8	55	3	0	406	0.01
UTC			261	19.8	59	3	0	403	0.11
Force 3G			262	20.3	58	4	1	402	0.06
UTC	Dekalb	DKC51-41(RR2YGRW)	262	18.5	61	2	0	411	0.01
UTC	Dekalb	DKC51-45(RR2)	255	18.7	60	4	1	400	0.31
UTC	Dekalb	DKC60-13(RR2YGRW)	267	22.4	56	4	0	399	0.02
Force 3G	Dekalb	DKC51-41(RR2YGRW)	260	18.9	60	5	3	406	0.01
Force 3G	Dekalb	DKC51-45(RR2)	248	18.8	59	4	0	388	0.15
Force 3G	Dekalb	DKC60-13(RR2YGRW)	279	23.3	55	1	0	412	0.00
Mean			262	20.1	58	3	1	403	0.08
Probability(%)									
Insecticide (I)			68.3	17.3	28.0	70.7	42.3	58.8	48.8
Hybrid (H)			0.2	0.0	0.0	79.1	49.0	13.6	13.3
I x H			9.3	61.9	46.0	24.4	44.7	23.7	75.8
LSD(0.10)									
Insecticide (I)			NS	NS	NS	NS	NS	NS	NS
Hybrid (H)			7	0.7	1	NS	NS	NS	NS
I x H			10	NS	NS	NS	NS	NS	NS
CV(%)			3	3	1	88	286	3	226

FIELD EXPERIMENT HISTORY

Title: **Corn Rootworm Hybrid Comparison Trial**

Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2683 **Year:** 2005

Personnel: J.G. Lauer, E. Cullen, P.J. Flannery, and K.D. Kohn

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

Supported By: HATCH

Site Information

Field: ARS428 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam

Soil Test: **Date:** 10/15/04 **pH** 6.5 **OM (%)** 3.1 **P (ppm)** 38 **K (ppm)** 96

Plot Management

Tillage Operations: Chisel Plow Field Cultivator Soil Finisher Cultivated 6/9/05

		Analysis:	Rate lbs/A:	Date:
Fertilizer:	**Preplant :**	46-0-0	325 lbs/A	4 /14/04
	Starter :	9-24-24	150 lbs/A	4 /28/05
	Post plant :	N/A	N/A	N/A
	Manure:	N/A	N/A	N/A

Herbicide: Outlook 20 oz/A
Hornet 3.0 oz/A
Accent 0.67 oz/A
Callisto 3.0 oz/A

Insecticide: See Factors
Hybrid: See Factors

Irrigation: None

Planting Date: 4/28/05 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/21/05 **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:** 30808

Factors/Treatments:

Hybrids:

Dekalb DKC51-41(RR2YGRW)
Dekalb DKC51-45(RR2)
Dekalb DKC58-78(YGCB)
Dekalb DKC60-13(RR2YGRW)
Dekalb DKC60-15

Soil Applied Insecticide:

Untreated
Force 3G @ 4.4 lbs/A

Results: Table C-66.

Table C-66. Corn Rootworm Hybrid Comparison Trial (Light Rootworm Pressure) Arlington, WI - 2005

Insecticide	Brand	Hybrid	Yield	Moisture	Test weight	Root lodging	Stalk lodging	Grower Return	Root rating
			bu/A	%	lbs/bu	%	%	$/A	0 to 3
	Dekalb	DKC51-41(RR2YGRW)	236	17.2	60	8	4	377	0.00
	Dekalb	DKC51-45(RR2)	232	17.1	60	9	2	370	0.03
	Dekalb	DKC58-78(YGCB)	234	17.9	59	4	1	370	0.04
	Dekalb	DKC60-13(RR2YGRW)	250	19.9	59	5	6	385	0.01
	Dekalb	DKC60-15	253	20.1	58	6	2	390	0.04
UTC			235	18.4	58	8	3	370	0.04
Force 3G			246	18.5	60	5	2	386	0.01
UTC	Dekalb	DKC51-41(RR2YGRW)	232	17.2	60	11	2	370	0.01
UTC	Dekalb	DKC51-45(RR2)	224	17.2	60	11	3	357	0.03
UTC	Dekalb	DKC58-78(YGCB)	234	17.6	58	6	1	371	0.06
UTC	Dekalb	DKC60-13(RR2YGRW)	235	19.7	58	3	9	363	0.02
UTC	Dekalb	DKC60-15	253	20.1	57	9	2	390	0.07
Force 3G	Dekalb	DKC51-41(RR2YGRW)	240	17.2	61	5	5	383	0.00
Force 3G	Dekalb	DKC51-45(RR2)	240	17.1	61	7	1	383	0.03
Force 3G	Dekalb	DKC58-78(YGCB)	234	18.1	59	2	0	369	0.03
Force 3G	Dekalb	DKC60-13(RR2YGRW)	265	20.0	59	6	3	408	0.00
Force 3G	Dekalb	DKC60-15	254	20.2	59	3	2	389	0.00
Mean			241	18.4	59	6	3	378	0.02
Probability(%)									
Insecticide (I)			2.5	17.9	2.5	22.9	45.1	2.4	6.3
Hybrid (H)			0.2	0.0	0.0	25.0	10.1	10.5	7.4
I x H			5.6	18.4	5.5	36.2	16.5	6.3	16.0
LSD(0.10)									
Insecticide (I)			5	NS	1	NS	NS	8	0.02
Hybrid (H)			9	0.2	0	NS	NS	NS	0.03
I x H			13	NS	0	NS	NS	21	NS
CV(%)			4	1	1	68	109	4	108

FIELD EXPERIMENT HISTORY

Title: **Corn Rootworm Hybrid Comparison Trial**

Experiment: 10 Corn Rootworm Hybrid Comparison **Trial ID:** 2684 **Year:** 2005

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-5A **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 6/13/05

		Analysis:	Rate lbs/A:	Date:
Fertilizer:	**Preplant :**	28-0-0	570 lbs/A	N/A
	Starter :	9-24-24	150 lbs/A	4 /25/05
	Post plant :	N/A	N/A	N/A
	Manure:	N/A	N/A	N/A

Herbicide: Dual II Magnum 1.8 pt/A
Hornet 4.0 oz/A
Banvel 1 pt/A

Insecticide: See Factors
Hybrid: See Factors

Irrigation: None

Planting Date: 4/25/05 **Planting Depth:** 1.5" **Row Width:** 30"

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

Harvest Date: 10/03/05 **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:** 29898

Factors/Treatments:

Hybrids:
Dekalb DKC51-41(RR2YGRW)
Dekalb DKC51-45(RR2)
Dekalb DKC58-78(YGCB)
Dekalb DKC60-13(RR2YGRW)
Dekalb DKC60-15

Soil Applied Insecticide:
Untreated
Force 3G @ 4.4 lbs/A

Results: Table C-67.

Table C-67. Corn Rootworm Hybrid Comparison Trial (Normal Rootworm Pressure) Janesville, WI - 2005

Insecticide	Brand	Hybrid	Yield	Moisture	Test weight	Root lodging	Stalk lodging	Grower Return	Root rating
			bu/A	%	lbs/bu	%	%	$/A	0 to 3
	Dekalb	DKC51-41(RR2YGRW)	193	17.2	60	0	3	308	0.01
	Dekalb	DKC51-45(RR2)	181	16.2	59	1	2	292	0.59
	Dekalb	DKC58-78(YGCB)	180	20.7	56	4	0	275	0.75
	Dekalb	DKC60-13(RR2YGRW)	213	21.9	57	0	1	320	0.02
	Dekalb	DKC60-15	177	21.9	57	8	1	266	0.65
UTC			179	19.9	58	5	2	275	0.39
Force 3G			199	19.2	58	0	2	309	0.41
UTC	Dekalb	DKC51-41(RR2YGRW)	184	17.9	60	0	2	291	0.01
UTC	Dekalb	DKC51-45(RR2)	166	15.7	59	3	1	269	0.43
UTC	Dekalb	DKC58-78(YGCB)	168	21.2	56	7	0	255	0.60
UTC	Dekalb	DKC60-13(RR2YGRW)	209	21.7	57	0	2	315	0.04
UTC	Dekalb	DKC60-15	166	22.8	56	16	2	247	0.88
Force 3G	Dekalb	DKC51-41(RR2YGRW)	202	16.4	60	0	4	325	0.01
Force 3G	Dekalb	DKC51-45(RR2)	196	16.6	60	0	2	315	0.75
Force 3G	Dekalb	DKC58-78(YGCB)	192	20.2	57	0	1	296	0.90
Force 3G	Dekalb	DKC60-13(RR2YGRW)	216	22.0	56	0	0	325	0.00
Force 3G	Dekalb	DKC60-15	188	21.0	57	0	1	286	0.42
Mean			189	19.6	58	3	2	292	0.40
Probability(%)									
Insecticide (I)			15.3	10.7	28.6	19.6	84.0	12.5	85.9
Hybrid (H)			0.3	0.0	0.0	3.1	6.6	0.8	0.0
I x H			72.2	3.9	39.4	3.1	23.0	72.5	17.6
LSD(0.10)									
Insecticide (I)			NS	NS	NS	NS	NS	NS	NS
Hybrid (H)			15	0.8	1	4	1	24	0.29
I x H			NS	1	NS	6	NS	NS	NS
CV(%)			8	4	2	167	85	8	71