2008
Project Report
Alabama Wheat and Feed Grain Committee

TITLE: ***Alabama On-Farm Corn Hybrid Performance Tests***

INVESTIGATORS:
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RESULTS SUMMARY:
Nine on-farm corn hybrid performance tests were coordinated by Regional Extension agents. Tests were planted in Clay, Dallas, Fayette, Geneva, Macon, Perry, Pike, Talladega and Washington Counties. Hybrids were planted in strips the length of the field at each site with one to two Complete Blocks. Yields of corn hybrids were evaluated within seed treatments (Poncho 250 or Cruiser). Dryland tests in Clay County yielded from 111.3 to 156.9 bushels per acre (bu/A), Dallas County from 96.5 to 132.2 bu/A, Perry County from 68.0 to 117.2 bu/A, Talladega County from 172.7 to 216.1 bu/A, and Washington County from 120.3 to 141.4 bu/A. Irrigated trials in Geneva County yielded from 145.8 to 201.6 bu/A, and Macon County from 190.4 to 216.8 bu/A. The Pike County test was not harvested for yield data because of damage from Tropical Storm Fay. The Fayette County test was severely affected by drought and was not harvested for yield data. The Geneva County test and the Washington County test were toured, but tests in the other counties were not because of drought. Yield results of the harvested tests were distributed to farmers at meetings and visits. Results were linked to the AlabamaCrops.com website.

2008 Alabama On-Farm Corn Hybrid Program
Dryland Roundup® Test
Test Location: Clay County
Farmer Cooperator: Dave Good – Borrowed Acres Farm
Regional Extension Agent: Leonard Kuykendall
Alabama Cooperative Extension System

Planted: May 2, 2008
Row Spacing: 30 inches
Tillage: No Till
Soil Type: Silt Loam

Harvested: October 20, 2008
Number of Rows Harvested per Hybrid: 4
Previous Crop: Corn
Final Plant Population (approximate): 31,000

This was a single strip test and not replicated at this location. Hybrids were provided by participating seed companies based upon their top choices for this area. Each hybrid was planted in a single strip the length of the field. Plot length averaged 800 feet. Trial was affected by an early-to-mid season drought. Lodging was observed and recorded. This was a non-replicated, single strip test; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Corn Hybrid Yields with Poncho® 250 Seed Treatment

Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Test Weight[2]	Yield [3]	Lodging
		(days)	(%)	(Lb/Bu)	(Bu/A)	(%)
Pioneer 31P40	RR2	119	14.9	59.3	156.9	3
Dyna-Gro 58K40	RR2	117	15.7	59.6	138.2	28
DeKalb DKC66-23	RR2/YGCB	116	14.9	57.5	123.7	73
Pioneer 31G65	RR2	119	14.6	59.5	120.6	53
Dyna-Gro 58K02	RR2	119	15.8	59.8	111.3	62
Test Average					131.6	

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer.
[2] Test Weight is pounds per bushel (Lb/Bu).
[3] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Appreciation is expressed to Dave Good (Borrowed Acres Farms), the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Rudy Yates, Regional Extension Agent, Kathy Glass, Advisor III – Natural Resource Programs, Dennis Delaney, Extension Specialist, and Dale Monks, Extension Specialist, for their assistance.

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2008 Alabama On-Farm Corn Hybrid Program
Dryland Roundup® Test
Test Location: Dallas County
Farmer Cooperators: Stanley Walters
Regional Extension Agent: Rudy Yates
Alabama Cooperative Extension System

Planted: April 17, 2008
Row Spacing: 30 inches
Tillage: No-till
Soil Type: Vaiden Clay

Harvested: September 8, 2008
Number of Rows Harvested per Hybrid: 4
Previous Crop: Soybeans

Two hybrids were provided by participating seed companies based upon their top choices for the area. The hybrids were planted in two strips the length of the field. Plot length averaged 392 feet. The test was affected by a late season drought; therefore, the hybrids are presented in order of planting across the field. Some lodging was observed but not in a significant amount between hybrids. The lodged corn was harvested by the combine. This test had only two strips per hybrid; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Dallas County On-Farm Corn Hybrid Yields[1]

				Strip 1		Strip 2	
Hybrid[1]	Technology Trait(s)[2]	Advertised Maturity	Seed Treatment[3]	Harvest Moisture	Yield [4]	Harvest Moisture	Yield [4]
		(days)		(%)	(Bu/A)	(%)	(Bu/A)
Dyna-Gro 58K02	RR2	119	P	15.8	99.7	19.2	104.1
DeKalb DKC67-23	RR2/YGCB	117	P	16.0	110.6	17.8	115.8
Pioneer 31P40	RR2	119	P	14.7	104.4	15.6	106.7
Great Lakes 6576 G3VT3	RR2/YGCB/YGVT3	115	P	17.0	104.4	15.7	112.1
NK N70C-3000 GT	*GT/CB/LL/RW*	*112*	*C*	*15.5*	*105.6*	*19.2*	*96.5*
CropLan TR1167 RR	*RR2*	*116*	*C*	*17.5*	*107.4*	*14.5*	*110.2*
Dyna-Gro 58K40	RR2	117	P	18.1	110.5	16.1	126.6
DeKalb DKC69-40	RR2/YGVT3	119	P	16.7	103.4	14.6	131.7
Pioneer 31G65	RR2	119	P	15.7	119.0	15.6	130.8
Great Lakes 6321 G3VT3	RR2/YGCB/YGVT3	114	P	15.1	105.8	15.6	120.7
NK N77P-GT/CB/LL	*GT/CB/LL*	*115*	*C*	*15.9*	*118.7*	*15.5*	*129.5*
CropLan 799 RB	*RR2/YGCB*	*117*	*C*	*15.9*	*126.6*	*15.6*	*132.2*

[1] Hybrids are listed according to planting order in the field. Hybrids in italics had Cruiser seed treatment.
[2] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; YGVT3 = YieldGard VT Triple®; GT/CB/LL/RW = Agrisure® GT (glyphosate tolerance), CB (corn borer), LL (Liberty Link®), and RW (rootworm).
[3] Seed Treatment: P = Poncho® 250; C = Cruiser®.
[4] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Appreciation is expressed to Stanley Walters, the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Kathy Glass, Advisor III – Natural Resource Programs, Dennis Delaney, Extension Specialist, and Dale Monks, Extension Specialist, for their assistance.

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2008 Alabama On-Farm Corn Hybrid Program
Irrigated Roundup® Test
Test Location: Geneva County
Farmer Cooperator: Walton Birdsong
Regional Extension Agent: Brandon Dillard
Extension Specialist - Agronomy: William Birdsong
Alabama Cooperative Extension System

Planted: March 15, 2008
Row Spacing: 36 inches
Tillage: Strip Till
Soil Type: Dothan Sandy Loam

Harvested: July 18, 2008
Number of Rows Harvested per Hybrid: 16
Previous Crop: Peanuts

Hybrids were provided by participating seed companies based upon their top choices for this area. The experimental design was two Complete Blocks. The plots averaged 1,100 feet in length. The test was irrigated according to a schedule. Lodging was observed and recorded; however, the lodged corn was harvested by the combine. This test had only two replications; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Table 1. Corn Hybrid Yields with Poncho® 250 Seed Treatment

			Replication 1		Replication 2			
Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Yield [2]	Harvest Moisture	Yield [2]	**Average Yield [2]**	Lodging
		(days)	(%)	(Bu/A)	(%)	(Bu/A)	**(Bu/A)**	(%)
Dyna-Gro 58K40	RR2	117	15.7	200.8	15.9	202.5	**201.6**	0
DeKalb DKC69-71	RR2/YGCB	119	15.4	200.1	15.8	199.3	**199.7**	25
Dyna-Gro 58K02	RR2	119	15.6	199.4	15.5	198.3	**198.9**	0
Pioneer 31N26	RR2	119	15.9	187.3	14.4	203.9	**195.6**	5
AgraTech 797 RR	RR2	117	15.6	189.2	16.0	199.5	**194.4**	0
AgraTech 760 RR	RR2	115	15.8	191.4	15.6	194.9	**193.2**	0
Pioneer 31P40	RR2	119	15.6	188.4	14.2	192.3	**190.4**	0

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer.
[2] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Table 2. Corn Hybrid Yields with Cruiser® Seed Treatment

			Replication 1		Replication 2			
Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Yield [2]	Harvest Moisture	Yield [2]	**Average Yield [2]**	Lodging
		(days)	(%)	(Bu/A)	(%)	(Bu/A)	**(Bu/A)**	(%)
CropLan 6831RR	RR2	111	15.6	202.0	15.0	199.8	**200.9**	0
CropLan 851RR	RR2	117	15.0	189.8	14.7	191.1	**190.4**	15
Garst 82R45GT	GT	117	15.5	151.0	15.1	161.5	**156.3**	20
CropLan 8950RB	RR2/YGCB	121	15.6	147.7	15.6	143.9	**145.8**	50

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; GT = Agrisure® GT (glyphosate tolerance).
[2] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Appreciation is expressed to Walton Birdsong, the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Rudy Yates, Regional Extension Agent, and Dennis Delaney, Extension Specialist.

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2008 Alabama On-Farm Corn Hybrid Program
Irrigated Roundup® Test
Test Location: Macon County
Farmer Cooperators: Segrest Brothers
Regional Extension Agent: Leonard Kuykendall
Alabama Cooperative Extension System

Planted: April 18, 2008
Row Spacing: 30 inches
Tillage: No Till
Soil Type: Silt Loam

Harvested: September 11, 2008
Number of Rows Harvested per Hybrid: 8
Previous Crop: Cotton
Final Plant Population (approximate): 33,000

This was a single strip test and not replicated at this location. Hybrids were provided by participating seed companies based upon their top choices for this area. Each hybrid was planted in a single strip the length of the field. Plot length averaged 400 feet. The test was irrigated according to a schedule. Lodging was observed and recorded. The lodged corn was harvested by the combine. This was a non-replicated, single strip test; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Table 1. Corn Hybrid Yields with Poncho® 250 Seed Treatment

Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Test Weight[2]	Yield[3]	Lodging
		(days)	(%)	(Lb/Bu)	(Bu/A)	(%)
DeKalb DKC69-71	RR2/YGCB	119	15.4	58.0	214.0	0
DeKalb DKC67-23	RR2/YGCB	117	14.9	55.5	206.4	15.29
Pioneer 31P40	RR2	119	14.4	57.0	205.3	0
Pioneer 31N26	RR2	119	14.5	57.0	202.4	.01
Dyna-Gro 58K02	RR2	119	15.2	52.0	198.7	.05
Dyna-Gro 58K40	RR2	117	14.6	58.0	197.0	.01
Test Average					204.0	

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer.
[2] Test Weight is pounds per bushel (Lb/Bu).
[3] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Table 2. Corn Hybrid Yields with Cruiser® Seed Treatment

Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Test Weight[2]	Yield[3]	Lodging
		(days)	(%)	(Lb/Bu)	(Bu/A)	(%)
NK N77P-GT/CB/LL	GT/CB/LL	115	14.4	55.0	216.8	.02
CropLan TR1167 RR	RR2	116	14.4	56.0	196.1	.02
NK N70C-3000 GT	GT/CB/LL/RW	112	15.5	53.0	193.0	.07
CropLan 799 RB	RR2/YGCB	117	14.2	56.0	190.4	0
Test Average					199.1	

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; GT/CB/LL/RW = Agrisure® GT (glyphosate tolerance), CB (corn borer), LL (Liberty Link®), and RW (rootworm).
[2] Test Weight is pounds per bushel (Lb/Bu).
[3] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Appreciation is expressed to Segrest Brothers Farm, the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Rudy Yates, Regional Extension Agent, Kathy Glass, Advisor III – Natural Resource Programs, Dennis Delaney, Extension Specialist, and Dale Monks, Extension Specialist, for their assistance.

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2008 Alabama On-Farm Corn Hybrid Program
Dryland Conventional Test
Test Location: Perry County
Farmer Cooperators: Jody and Jon Nichols
Regional Extension Agent: Rudy Yates
Alabama Cooperative Extension System

Planted: April 17, 2008
Row Spacing: 30 inches
Tillage: Conventional
Soil Type: Okolona Silty Clay Loam

Harvested: September 4, 2008
Number of Rows Harvested per Hybrid: 4
Previous Crop: Soybeans

This was a single strip test and not replicated at this location. Two hybrids were provided by participating seed companies based upon their top choices for this area. Each hybrid was planted in a single strip the length of the field. Plot length was 1000 feet. This test was affected by a mid-to-late season drought. Some lodging was observed but not in a significant amount between hybrids. The lodged corn was harvested by the combine. This was a non-replicated, single strip test; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Table 1. Corn Hybrid Yields with Poncho® 250 Seed Treatment

Hybrid	Technology Trait(s) [1]	Advertised Maturity	Harvest Moisture	Yield @ 15.5% moisture
		(days)	(%)	(bushels/acre)
DeKalb DKC69-40 (VT3)	RR2/YGVT3	119	16.9	117.2
Dyna-Gro 58K40	RR2	117	17.0	110.3
Pioneer 31G65	RR2	119	16.4	107.7
Dyna-Gro 58K02	RR2	119	16.7	106.4
Pioneer 31P41		119	16.2	100.3
DeKalb DKC67-23	RR2/YGCB	117	16.8	95.3
Great Lakes 6321 G3VT3	RR2/YGCB/YGVT3	114	15.9	92.0
Great Lakes 6576 G3VT3	RR2/YGCB/YGVT3	115	16.3	90.6
Test Average				102.5

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; YGVT3 = YieldGard VT Triple®.

Table 2. Corn Hybrid Yields with Cruiser® Seed Treatment

Hybrid	Technology Trait(s) [1]	Advertised Maturity	Harvest Moisture	Yield @ 15.5% moisture
		(days)	(%)	(bushels/acre)
CropLan 799 RB	RR2/YGCB	117	17.0	100.1
CropLan TR1167 RR	RR2	116	16.7	91.1
NK N77P-GT/CB/LL	GT/CB/LL	115	16.0	87.2
NK N70C-3000 GT	GT/CB/LL/RW	112	16.6	68.0
Test Average				86.6

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; GT/CB/LL/RW = Agrisure® GT (glyphosate tolerance), CB (corn borer), LL (Liberty Link®), and RW (rootworm).

Appreciation is expressed to Jody and Jon Nichols, the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Kathy Glass, Advisor III – Natural Resource Programs, Dennis Delaney, Extension Specialist, and Dale Monks, Extension Specialist, for their assistance.

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2008 Alabama On-Farm Corn Hybrid Program
Dryland Roundup® Test
Test Location: Talladega County
Farmer Cooperators: Mack and Scott Pruitt
Regional Extension Agent: Leonard Kuykendall
Alabama Cooperative Extension System

Planted: April 23, 2008
Row Spacing: 30 inches
Tillage: Conventional
Soil Type: Silt Loam

Harvested: September 25, 2008
Number of Rows Harvested per Hybrid: 6
Previous Crop: Bahiagrass
Final Plant Population (approximate): 27,000

This was a single strip test and not replicated at this location. Hybrids were provided by participating seed companies based upon their top choices for this area. Each hybrid was planted in a single strip the length of the field. Plot length averaged 400 feet. Lodging was observed and recorded. The lodged corn was harvested by the combine. This was a non-replicated, single strip test; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Table 1. Corn Hybrid Yields with Poncho® 250 Seed Treatment

Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Test Weight[2]	Yield @ 15.5% Moisture	Lodging
		(days)	(%)	(Lb/Bu)	(bushels/acre)	(%)
Pioneer 31P40	RR2	119	14.1	58.0	216.1	0.13
DeKalb DKC64-78	RR2/YGCB	114	13.3	57.0	210.3	0.08
Dyna-Gro 58K40	RR2	117	14.7	58.5	203.7	0.40
DeKalb DKC66-23	RR2/YGCB	116	13.6	56.0	193.2	0.08
Dyna-Gro 58K02	RR2	119	13.7	57.0	181.7	0.12
Pioneer 31G65	RR2	119	13.9	57.5	172.7	35.58
Test Average					196.3	

[1] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer.
[2] Test Weight is pounds per bushel (Lb/Bu).
[3] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Table 2. Corn Hybrid Yields with Cruiser® Seed Treatment

Hybrid	Technology Trait(s)[1]	Advertised Maturity	Harvest Moisture	Test Weight[2]	Yield @ 15.5% Moisture	Lodging
		(days)	(%)	(Lb/Bu)	(bushels/acre)	(%)
NK N70C-3000GT	GT/CB/LL/RW	112	13.3	56.0	200.3	0.10
NK N77P-GT/CB/LL	GT/CB/LL	115	13.2	56.5	198.7	0.07
Test Average					199.5	

[1] Trait Key: GT/CB/LL/RW = Agrisure® GT (glyphosate tolerance), CB (corn borer), LL (Liberty Link®), and RW (rootworm).
[2] Test Weight is pounds per bushel (Lb/Bu).
[3] Yield is adjusted to 15.5 % moisture and reported in bushels per acre (Bu/A).

Appreciation is expressed to Mack and Scott Pruitt, the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Rudy Yates, Regional Extension Agent, Kathy Glass, Advisor III – Natural Resource Programs, Dennis Delaney, Extension Specialist, and Dale Monks, Extension Specialist, for their assistance.

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2008 Alabama On-Farm Corn Hybrid Program
Dryland Roundup® Test
Test Location: Washington County
Farmer Cooperator: Rod Richardson
Regional Extension Agent: Richard Petcher
Alabama Cooperative Extension System

Planted: March 27, 2008
Row Spacing: 36 inches
Tillage: Conventional
Soil Type: Bama Fine Sandy Loam

Harvested: August 21, 2008
Number of Rows Harvested per Hybrid: 8
Previous Crop: Corn

This was a single strip test and not replicated at this location. Hybrids were provided by participating seed companies based upon their top two choices for this area. Each hybrid was planted in a single strip the length of the field. Plot length averaged 1060 feet. Test was affected by a mid-to-late season drought. Some lodging was observed but not in a significant amount between hybrids. The lodged corn was harvested by the combine. This was a non-replicated, single strip test; therefore, producers are encouraged to consider several sources of information when making hybrid selections.

Table 1. Corn Hybrid Yields with Poncho® 250 Seed Treatment

Hybrid	Technology Trait(s) [a]	Advertised Maturity	Harvest Moisture	Yield @ 15.5% moisture
		(days)	(%)	(bushels/acre)
Terral TV25BR23	RR2/YGPL	113-115	16.7	141.4
Terral TV26BR41	RR2/YGPL	115-117	16.8	138.1
Pioneer 31P40	RR2	119	15.2	135.2
Dyna-Gro 58K02	RR2	119	16.7	131.4
Dyna-Gro 58K40	RR2	117	17.0	127.6
DeKalb DKC69-71	RR2/YGCB	119		126.7
Pioneer 31G65	RR2	119	16.4	125.4
DeKalb DKC67-23	RR2/YGCB	117	16.8	120.3
Trial Average				130.8

[a] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; YGPL = YieldGard® Plus.

Table 2. Corn Hybrid Yields with Cruiser® Seed Treatment

Hybrid	Technology Trait(s) [a]	Advertised Maturity	Harvest Moisture	Yield @ 15.5% moisture
		(days)	(%)	(bushels/acre)
CropLan 799 RB	RR2/YGCB	117	18.5	134.6
CropLan 6831 RBtCRW	RR2/YGCB/YGRW	112	17.7	132.0
Trial Average				133.3

[a] Trait Key: RR2 = Roundup Ready® 2 Corn; YGCB = YieldGard® Corn Borer; YGRW = YieldGard® Corn Rootworm.

Appreciation is expressed to Rod Richardson, the Alabama Wheat and Feed Grain Commission, and the participating seed companies for supporting this test. Appreciation is also expressed to Rudy Yates, Regional Extension Agent, for his assistance.

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