

Performance of Field Corn Hybrids In Alabama, 2014



Feed grinder in Opelika 1925

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Dept. Series No. CSES2014:Corn

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Crop, Soil and Environmental Sciences

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Auburn University, Auburn AL

November 2014



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“The mission of the Alabama Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a rapid, timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs.”

Field corn hybrids are evaluated in 2014 by the Alabama Agricultural Experiment Station as a service to producers, crop advisors, and industry. Field trials on corn hybrid performance were conducted on experiment stations throughout the state to evaluate yield performance under different climatic factors and soil types. Non-irrigated, conventional tillage trials were conducted at two locations in the northern region, two locations in the central region, and three locations in the southern region. The non-irrigated location at E.V. Smith Field Crops Unit in central Alabama was “no-till”. In addition, an irrigated, conventional tillage corn hybrid test was conducted in the northern region at Belle Mina (TVREC).

Methods

Field trials at all locations were conducted with hybrids arranged in a “randomized complete block design” with four replications. Plots were 2, 30- or 36-inch wide rows that were 20 to 30 feet long, according to the location. Planting rate was 28,000 or 32,000 seeds/acre. The entire plot was machine-harvested for yield and grain moisture content recorded. Grain yields were adjusted to 15.5% moisture and converted to yield (bushels/acre). Due to equipment breakdown and inclement weather, the trial at E.V. Smith Field Crops Unit is not presented in this report.

Tables

**Abbreviations: REC, Research and Extension Center; ARU, Agricultural Research Unit*

2014 Field Corn Hybrid Yield Performance

Table 1. Locations and cultural practices for the Alabama 2014 corn hybrid trials.

Northern Region

Table 2. Performance of non-irrigated field corn hybrids in North Alabama, TVREC, Belle Mina

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Table 4. Performance of non-irrigated field corn hybrids in Northeast Alabama, SMREC, Crossville

Central Region

Table 5. Performance of non-irrigated field corn hybrids in Central Alabama, PARU, Prattville

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Table 6. Performance of non-irrigated field corn hybrids in South Alabama, BARU, Brewton

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Table 9. Soil types for Alabama field corn trials, 2014

Table 10. Sources of 2014 Corn Hybrid Trial Seed

Table 1. Locations and cultural practices for the Alabama 2014 corn hybrid trials.

Location	Planting date	Nitrogen rate *	Plant pop.	Harvest date	Herbicides used
		(lbs/ac)	(seeds/ac)		
North Alabama					
Tennessee Valley REC (Belle Mina)					
Regular test (Non-Irrigated)	March 31	175	28,000	Sept. 9-11	Atrazine/Dual
Regular test (Irrigated)	April 1	225	32,000	Sept. 17-19	Atrazine/Dual
Sand Mountain REC (Crossville)					
Regular test	April 2	310	28,000	Sept. 17	Atrazine/Zidua
Central Alabama					
E.V. Smith Research Center (Shorter)					
No-till test	April 14	130	32,000	Sept. 3	Atrazine/Dual
Prattville Agricultural Res. Unit (Prattville)					
Regular test	April 28	120	28,000	Oct. 6	Atrazine/Dual
South Alabama					
Brewton Agricultural Res. Unit (Brewton)					
Regular test	March 26	120	28,000	Aug. 25	Atrazine/Dual
Gulf Coast REC (Fairhope)					
Regular test	March 21	160	28,000	Aug. 7	Atrazine/Callisto

* Lime, phosphorus, potassium, zinc, and sulfur were applied according to soil test recommendations.

Table 2. Performance of Non-irrigated Corn Hybrids in North Alabama, 2014.

Tennessee Valley Research & Extension Center, Belle Mina AL

Yield	Hybrid*	Grain yield
rank		bu/acre
1	Dekalb DKC 68-92	250
2	Dekalb DKC 66-40	248
3	Terral REV 26BHR50	245
4	AgriGold A6559VT2RIB	244
5	Augusta A8868VT3PRO	241
6	DynaGro D 57VP75	239
7	Augusta A7768GT3110	237
8	Terral-REV 28HR20	236
9	Mycogen 2C797	234
10	Terral REV 23BHR55	232
11	AgriGold A6719VT2PRO	232
12	TA 784-13VP	231
13	Terral REV 24BHR93	231
14	Mycogen 2D848	231
15	Terral REV 22BHR43	229
16	Terral REV 27HR83	228
17	Terral REV 25BHR44	228
18	Mycogen 2J794	227
19	Terral REV 18BHR84	227
20	TA 744-22DP	225
21	AgriGold A6573VT2RIB	225
22	AgriGold A6517VT3PRIB	224
23	DynaGro D 56VC46	222
24	AgriGold A6499STXRIB	222
25	Terral REV 17HR73	221
26	TA 765-30	221
27	DynaGro D 54DC94	219
28	Mycogen 2C786	219
29	Augusta A5566GTCBLL	217
30	Mycogen 2Y816	216
31	AgriGold A6574STX	215
32	Terral-REV 28R10	213
33	Mycogen 2Y744	213
34	Dekalb DKC 62-77	213
35	Mycogen MYCX 13751	213
36	Dekalb DKC 61-54	211
37	Syngenta NK S78S-3111	210
38	TA 774-22DP	210
39	AgriGold A6687VT2PRO	207
40	Mycogen 2H877	207
41	Augusta A5565VT2PRO	205
42	Mycogen 2V714	203
43	Mycogen MYCX 13810	203
44	Mycogen MYCX 13809	198
45	DynaGro D 55VP77	197
46	Mycogen 2V777	196
47	AgriGold A6501VT2RIB	195
48	Dekalb DKC 65-19 (GENVT3P)	190
49	Augusta A8064VT2PRORIB	186
50	DynaGro D 57VP51	184
51	Syngenta NK 70J-3011A	184
52	AgriGold A6659VT2RIB	168
Trial mean		218
L.S.D. (0.10)**		20
C.V. (%)		8.0
Pr>F		0.0001

*Grain yields were adjusted to 15.5%.

**L.S.D, Least significant difference at the 10% level; C.V., coefficient of variation.

Table 3. Performance of Irrigated Corn Hybrids in North Alabama, 2014.

Tennessee Valley Research & Extension Center, Belle Mina AL

Yield	Hybrid*	Grain yield
rank		bu/acre
1	Terral REV 26BHR50	297
2	Terral-REV 28HR20	296
3	Augusta A7768GT3110	291
4	Terral REV 24BHR93	289
5	Terral REV 25BHR44	284
6	Terral REV 27HR83	280
7	TA 784-13VP	279
8	AgriGold A6687VT2PRO	279
9	Mycogen 2C797	278
10	Terral REV 23BHR55	278
11	AgriGold A6517VT3PRIB	274
12	Dekalb DKC 66-40	272
13	Mycogen 2D848	269
14	Augusta A5566GTCBLL	268
15	Mycogen 2Y744	266
16	TA 744-22DP	266
17	TA 774-22DP	262
18	Terral REV 22BHR43	261
19	Mycogen MYCX 13809	261
20	TA 765-30	261
21	AgriGold A6719VT2PRO	260
22	Augusta A8868VT3PRO	258
23	DynaGro D 57VP51	257
24	Terral-REV 28R10	257
25	Syngenta NK S78S-3111	256
26	Mycogen 2J794	255
27	AgriGold A6574STX	255
28	Terral REV 17HR73	254
29	DynaGro D 54DC94	254
30	Dekalb DKC 68-92	254
31	AgriGold A6499STXRIB	254
32	Mycogen 2V714	251
33	AgriGold A6501VT2RIB	250
34	AgriGold A6559VT2RIB	250
35	Dekalb DKC 62-77	248
36	Mycogen 2V777	247
37	AgriGold A6659VT2RIB	246
38	Mycogen MYCX 13810	245
39	Mycogen 2H877	244
40	Augusta A5565VT2PRO	243
41	DynaGro D 55VP77	243
42	Terral REV 18BHR84	243
43	Mycogen MYCX 13751	242
44	Mycogen 2C786	242
45	Mycogen 2Y816	241
46	AgriGold A6573VT2RIB	239
47	Dekalb DKC 65-19	239
48	DynaGro D 56VC46	238
49	DynaGro D 57VP75	237
50	Augusta A8064VT2PRORIB	237
51	Dekalb DKC 61-54	236
52	Syngenta NK 70J-3011A	228
Trial mean (bu/acre)		258
L.S.D. (0.10)**		25
C.V. (%)		8.3
Pr>F		0.0001

*Grain yields were adjusted to 15.5%.

**L.S.D, Least significant difference at the 10% level; C.V., coefficient of variation.

Table 4. Performance of Non-irrigated Corn Hybrids in Northeast Alabama, 2014.

Sand Mountain Research & Extension Center, Crossville AL

Yield	Hybrid*	Grain yield
rank		bu/acre
1	Mycogen 2C786	202
2	AgriGold A6574STX	197
3	Terral REV 23BHR55	187
4	DynaGro D 57VP75	184
5	TA 784-13VP	179
6	Augusta A8868VT3PRO	178
7	TA 774-22DP	178
8	Mycogen 2J794	177
9	TA 744-22DP	177
10	DynaGro D 54DC94	174
11	AgriGold A6659VT2RIB	172
12	DynaGro D 57VP51	169
13	Terral REV 22BHR43	168
14	Augusta A7768GT3110	167
15	Mycogen MYCX 13809	164
16	Dekalb DKC 68-92	164
17	Mycogen MYCX 13810	163
18	Augusta A8064VT2PRORIB	163
19	TA 765-30	162
20	Mycogen 2C797	161
21	Dekalb DKC 62-77	161
22	DynaGro D 55VP77	158
23	Terral REV 26BHR50	158
24	Mycogen 2D848	158
25	Terral REV 24BHR93	158
26	AgriGold A6499STXRIB	156
27	Mycogen 2H877	156
28	DynaGro D 56VC46	156
29	Augusta A5565VT2PRO	155
30	AgriGold A6687VT2PRO	155
31	AgriGold A6559VT2RIB	154
32	Terral REV 27HR83	153
33	Augusta A5566GTCBLL	153
34	Terral REV 17HR73	151
35	Dekalb DKC 66-40	151
36	Mycogen MYCX 13751	150
37	AgriGold A6501VT2RIB	149
38	AgriGold A6517VT3PRIB	147
39	Mycogen 2Y816	147
40	Dekalb DKC 65-19 (GENVT3P)	146
41	Terral-REV 28HR20	142
42	Dekalb DKC 61-54	142
43	AgriGold A6719VT2PRO	141
44	Mycogen 2V777	140
45	Terral REV 25BHR44	139
46	Mycogen 2V714	138
47	Terral-REV 28R10	138
48	Terral REV 18BHR84	134
49	Syngenta NK 70J-3011A	133
50	Mycogen 2Y744	133
51	AgriGold A6573VT2RIB	132
52	Syngenta NK S78S-3111	113
Trial mean (bu/acre)		157
L.S.D. (0.10)**		27
C.V. (%)		14.5
Pr>F		0.0001

*Grain yields were adjusted to 15.5%.

**L.S.D, Least significant difference at the 10% level; C.V., coefficient of variation.

Table 5. Performance of Non-irrigated Corn Hybrids in Central Alabama, 2014.

Prattville Agricultural Research Unit, Prattville AL		
Yield	Hybrid*	Grain yield
rank		bu/acre
1	Terral REV 26BHR50	185
2	Terral-REV 28HR20	174
3	Mycogen 2V777	167
4	Mycogen 2Y816	163
5	Terral REV 27HR83	162
6	Terral REV 25BHR44	161
7	Augusta A5565VT2PRO	159
8	Mycogen 2Y744	158
9	Mycogen 2D848	157
10	TA 784-13VP	155
11	AgriGold A6719VT2PRO	153
12	Dekalb DKC 66-40	152
13	Mycogen MYCX 13809	151
14	Dekalb DKC 68-92	150
15	TA 744-22DP	149
16	Terral REV 24BHR93	149
17	AgriGold A6559VT2RIB	149
18	AgriGold A6499STXRIB	148
19	AgriGold A6574STX	148
20	Augusta A5566GTCBLL	147
21	Terral REV 23BHR55	147
22	Mycogen 2H877	147
23	AgriGold A6659VT2RIB	146
24	Augusta A7768GT3110	146
25	Terral-REV 28R10	145
26	Dekalb DKC 65-19	145
27	Mycogen MYCX 13810	145
28	Augusta A8868VT3PRO	145
29	Augusta A8064VT2PRORIB	144
30	Mycogen 2V714	144
31	Mycogen 2C786	141
32	Mycogen 2C797	141
33	TA 774-22DP	139
34	Mycogen 2J794	138
35	Mycogen MYCX 13751	138
36	Terral REV 22BHR43	131
37	AgriGold A6687VT2PRO	131
38	AgriGold A6517VT3PRIB	130
39	Terral REV 18BHR84	130
40	AgriGold A6573VT2RIB	127
41	Dekalb DKC 62-77	127
42	AgriGold A6501VT2RIB	127
43	Terral REV 17HR73	124
44	TA 765-30	123
Trial mean (bu/acre)		146
L.S.D. (0.10)**		19
C.V. (%)		11.1
Pr>F		0.0001

*Grain yields were adjusted to 15.5%.

**L.S.D, Least significant difference at the 10% level; C.V., coefficient of variation.

Table 6. Performance of Non-irrigated Corn Hybrids in South Central Alabama, 2014.

Brewton Agricultural Research Unit, Brewton AL		
Yield	Hybrid*	Grain yield
rank		bu/acre
1	Dekalb DKC 68-92	170
2	Terral-REV 28HR20	169
3	TA 744-22DP	167
4	DynaGro D 57VP51	155
5	Mycogen 2C797	153
6	Mycogen 2D848	153
7	Mycogen 2C786	152
8	Augusta A5566GTCBLL	152
9	TA 765-30	151
10	Mycogen MYCX 13809	149
11	Dekalb DKC 65-19 (GENVT3P)	148
12	Dekalb DKC 66-40	148
13	TA 774-22DP	148
14	Terral-REV 28R10	147
15	Terral REV 27HR83	147
16	Terral REV 24BHR93	146
17	TA 784-13VP	146
18	Terral REV 25BHR44	144
19	Terral REV 26BHR50	143
20	Augusta A8868VT3PRO	142
21	DynaGro D 55VP77	142
22	Mycogen MYCX 13810	142
23	Terral REV 23BHR55	141
24	Mycogen 2J794	140
25	Mycogen 2H877	138
26	DynaGro D 57VP75	138
27	Mycogen 2V714	137
28	DynaGro D 56VC46	137
29	Terral REV 22BHR43	137
30	Augusta A5565VT2PRO	137
31	Mycogen 2Y816	137
32	Augusta A7768GT3110	133
33	DynaGro D 54DC94	131
34	Terral REV 17HR73	126
35	Augusta A8064VT2PRORIB	125
36	Mycogen 2Y744	125
37	Terral REV 18BHR84	124
38	Mycogen MYCX 13751	123
39	Mycogen 2V777	115
Trial mean (bu/acre)		142
L.S.D. (0.10)**		18
C.V. (%)		10.7
Pr>F		0.0001
*Grain yields were adjusted to 15.5%.		
**L.S.D, Least significant difference at the 10% level; C.V., coefficient of variation.		

Table 7. Performance of Non-irrigated Corn Hybrids in Southwest Alabama, 2014

Gulf Coast Research & Extension Center, Fairhope AL

Yield	Hybrid*	Grain yield
rank		bu/acre
1	Augusta A7768GT3110	210
2	Augusta A5566GTCBLL	195
3	TA 774-22DP	192
4	Terral-REV 28HR20	187
5	Terral REV 26BHR50	184
6	Dekalb DKC 68-92	182
7	DynaGro D 57VP51	182
8	Terral REV 24BHR93	181
9	Terral REV 23BHR55	181
10	Terral REV 17HR73	178
11	TA 765-30	177
12	Terral REV 22BHR43	173
13	Dekalb DKC 66-40	173
14	Terral REV 27HR83	173
15	Mycogen 2J794	171
16	TA 744-22DP	171
17	Terral REV 25BHR44	169
18	Mycogen 2D848	168
19	Mycogen 2C786	168
20	Terral REV 18BHR84	168
21	Terral-REV 28R10	166
22	DynaGro D 54DC94	164
23	DynaGro D 56VC46	161
24	DynaGro D 55VP77	161
25	Dekalb DKC 65-19 (GENVT3P)	160
26	TA 784-13VP	160
27	Mycogen MYCX 13810	159
28	Mycogen MYCX 13809	159
29	Mycogen 2Y744	156
30	Augusta A8868VT3PRO	151
31	Mycogen 2Y816	150
32	DynaGro D 57VP75	150
33	Augusta A8064VT2PRORIB	150
34	Mycogen 2V777	149
35	Mycogen 2C797	144
36	Mycogen MYCX 13751	135
37	Mycogen 2V714	131
38	Augusta A5565VT2PRO	127
39	Mycogen 2H877	119
	Trial mean	165
	L.S.D. (0.10)**	21
	C.V. (%)	10.6
	Pr>F	0.0001

*Grain yields were adjusted to 15.5%.

**L.S.D, Least significant difference at the 10% level; C.V., coefficient of variation.

Table 8. 2014 Rainfall measurements at Alabama research sites.

Year	Monthly rainfall in inches							7-month
	Mar.	Apr.	May	June	July	Aug.	Sept.	total
Belle Mina								
2014	2.7	6.1	2.7	6.9	4.6	2.1	1.3	26.4
2013	5.6	5.3	6.5	3.3	9.8	2.2	4.2	36.9
2012	3.4	1.7	3.2	1.3	8.7	3.4	5.5	27.2
Crossville								
2014	3.9	8.9	3.7	5.8	6.8	1.8	1.6	32.5
2013	5.3	7.9	7.9	5.7	8.8	7.1	3.7	46.4
2012	5.3	1.2	2.0	3.4	6.0	4.3	5.5	27.7
Shorter								
2014	6.0	9.6	6.2	6.0	3.9	2.5	2.0	36.2
2013	2.4	3.2	1.9	8.8	6.5	5.8	2.5	31.1
2012	3.3	1.2	9.1	2.3	4.3	4.9	2.8	27.9
Prattville								
2014	6.8	8.0	5.2	4.2	4.4	4.1	2.5	35.2
2013	3.0	4.5	1.9	5.6	7.5	5.5	4.6	32.6
2012	5.4	1.6	5.3	3.5	1.3	4.8	3.7	25.6
Brewton								
2014	9.3	11.9	8.1	8.3	7.5	6.7	4.4	56.2
2013	2.7	5.0	2.5	7.5	6.3	7.2	8.2	39.4
2012	2.0	3.1	3.8	9.9	9.4	9.6	4.1	41.9
Fairhope								
2014	8.5	27.0	8.2	8.7	6.4	1.7	5.8	66.3
2013	1.6	4.0	9.4	8.9	16.7	8.8	1.9	51.3
2012	2.2	2.6	7.5	11.3	7.9	4.6	3.8	39.9

Table 9. Soil types for Alabama field corn trials, 2014

Trial Location	Soil Type
North	
Belle Mina	Decatur silt loam
Crossville	Wynnvilleville fine sandy loam
Central	
Shorter	Norfolk sandy loam
Prattville	Lucedale fine sandy loam
South	
Brewton	Benndale fine sandy loam
Fairhope	Malbis fine sandy loam

Table 10. Sources of 2014 Corn Hybrid Trial Seed

Seed Company	Brand	Seed Company	Brand
AgriGold Hybrids 5381 Akin Road St. Francisville, IL 62460	AgriGold	Mycogen Seeds 107 Meritt Cove Marion, AR 72364	Mycogen
Augusta Seed P.O. Box 899 Verona, VA 24482	Augusta	Syngenta NK Brand Seed 112 Meadowlark Lane Indianola, MS 38751	NK Brand
Crop Production Services 720 Hwy 52 South Kinston, AL 36453	Dyna-Gro	T.A. Seeds 39 Seeds Lane Jersey Shore, PA 17740	TA
Monsanto Company 800 N. Lindbergh Blvd St. Louis, MO 63167	Dekalb DKC	Terral Seed, Inc. P.O. Box 826 Lake Providence, LA 71254	Terral REV

Acknowledgements

We would like to express our appreciation for the work and dedication of the supervisory and staff personnel of the Alabama Experiment Station outlying units without whom this work would not be possible. Thanks are also expressed to the producers and citizens of Alabama for supporting research on the production of food and fiber across our state.

Alabama Experiment Station Outlying Units Conducting Row Crop Variety Trials

Northern Region

Sand Mountain Research and Extension Center, Crossville

Joyce Treadaway Ducar, Director

Tennessee Valley Research and Extension Center, Belle Mina

Chet Norris, Director

David Harkins, Associate Director



Central Region

Black Belt Research and Extension Center, Marion Junction

Jamie Yeager, Director

Gene Pegues, Assoc. Director

E.V. Smith Research and Extension Center, Field Crops & Plant Breeding Unit, Tallassee

Greg Pate, Director

Shawn Scott, Assoc. Director

Jason Burkett, Assoc. Director

Prattville Agricultural Research Unit, Prattville

Don Moore, Director



Southern Region

Brewton Agricultural Research Unit, Brewton

Malcomb Pegues, Director

Gulf Coast Research and Extension Center, Fairhope

Malcomb Pegues, Director

Jarrold Jones, Assoc. Director

Wiregrass Research and Extension Center, Headland

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