

# **Corn Grain Hybrid Tests in Tennessee**

**2009**

## **PRELIMINARY REPORT**

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Variety test results are posted on UT's website at:

**<http://varietytrials.tennessee.edu/>  
and  
[www.utcrops.com](http://www.utcrops.com)**

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# CORN GRAIN VARIETY TESTS IN TENNESSEE

## RESEARCH AND EDUCATION CENTER TESTS

2009

### Experimental Procedures:

**Research and Education Center Tests:** All corn hybrid trials were conducted in each of the physiographic regions of the state. Tests were conducted at the Ames Plantation (Grand Junction), Highland Rim (Springfield), East TN (Knoxville), Middle TN (Spring Hill), and Milan (Milan) Research and Education Centers (REC). **Duplicate plantings** of the early-, medium- and full-season tests were made at the **Milan and Middle Tennessee Research and Education Centers** for performance testing **with and without irrigation**.

The corn hybrids were placed in either the **early-, medium-, or full-season tests** based on the maturity as reported by the company providing the hybrid. The early season test contained hybrids that had maturity <114 days after planting (DAP); the medium season test contained hybrids with maturity of 114-116 DAP; and the full season test contained hybrids with maturities >116 DAP. All corn hybrid trials were over-planted and thinned to a uniform population per acre at each location (see Table 1). Population varied with location but attempts were made to make the population the same for all hybrids at a given location. Tests were conducted using 30 inch row spacing. The tests were fertilized with 150 pounds of nitrogen per acre. A portion of the nitrogen was applied prior to seeding and the remainder was applied as a side-dress. The plot size was two rows, 30 feet in length. Plots were replicated three times at each location. An incomplete block design was used at each location in order to reduce the within replication variation.

**Growing Season:** The 2009 growing season was characterized by cooler and wetter than normal conditions overall. Producers planted 670,000 acres this year, a reduction of 20,000 from 2008. Acreage harvested for grain is projected to be 590,000, down 40,000 from last season. Corn grain production for 2009 is projected to be 80.2 million bushels, an increase of 8 percent from the previous year. Wet conditions in September and October delayed harvest by nearly a month past the normal pace. The state corn grain yield average is projected to be 136 bu/a, 18 bushels above 2008 yields.

### Interpretation of Data:

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first. **All yields presented have been adjusted to 15.5% moisture.** At the bottom of the tables, **LSD** values stand for **Least Significant Difference**. The mean yields of any two varieties being compared must differ by at least the amount shown to be considered different in yielding ability at the 5% level of probability of significance. For example, given that the LSD for a test is 8.0 bu/a and the mean yield of Hybrid A was 110 bu/a and the mean yield of Hybrid B was 115 bu/a, then the two hybrids are not statistically different in yield because the difference of 5 bu/a is less than the minimum of 8 bu/a required for them to be significant. Similarly, if the average yield of Hybrid C was 123 bu/a then it is significantly higher yielding than both Hybrid B ( $123 - 115 = 8$  bu/a = LSD of 8) and Hybrid A ( $123 - 110 = 13$  bu/a > LSD of 8).

Also, the **coefficient of variation (C.V.)** values are shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is the percentage that the square root of error variance is of the overall test mean yield at that location. For example, a C.V. of 10% indicates that the size of the error variation is about 10% of the size of the test mean. Similarly, a C.V. of 30% indicates that the size of the error variation is nearly one-third as large as the test mean. A goal in conducting each yield test is to keep the C.V. as low as possible, preferably below 20 percent.

## RESULTS

***Yield and Agronomic Traits.*** One hundred and twelve corn hybrids were evaluated in the 2009 **Research and Education Center (REC)** tests in Tennessee. There were 45 hybrids in the early- (Tables 2-5), 42 in the medium- (Tables 6-9), and 25 hybrids in the full-season (Tables 10-13). The 112 hybrids represent 16 different brands (Tables 14-15). In the REC tests, the white grain, Bt, RW, RR, LL and stacked-trait hybrids were not placed in separate tests, but were placed in the maturity test for which they fit. Ninety-one of the 112 hybrids in the 2009 REC tests have a Bt gene for European Corn Borer resistance (denoted by Bt, YG, CB, YGCB, YGPL, HX); 56 have a gene for Corn Root Worm resistance (denoted by YGRW, RW, CRW, YGPL); 87 have a Roundup Ready gene for tolerance to glyphosate herbicide (denoted by R, RR,RR2,GT); 23 have a gene for tolerance to Liberty (glufosinate) herbicide (denoted by LL); and 85 have stacked genes with trait combinations of RR, Bt, RW, LL, 56 of these hybrids are triple stacked with RR,Bt,RW (Table 14).

***Irrigated vs. Non-irrigated Yields.*** Duplicate tests were conducted at the Milan and Middle TN Research and Education Centers with and without irrigation. In a year of higher than normal rainfall during critical stages of the growing season, the average differences in yields across hybrids receiving irrigation versus non-irrigation at Milan in 2009 were not statistically different: 3 bu/a for early-season hybrids (Table 2), 5 bu/a for medium-season hybrids (Table 6), and 2 bu/a for full-season hybrids (Table 10). The differences in yield between irrigated and non-irrigated plots were larger at the Middle Tennessee REC where rainfall patterns were not as favorable. The differences were 62, 9, and 26 bu/a for the early-, medium-, and full-season tests respectively, with the medium tests showing no statistical difference in overall yield. (Tables 2, 6, and 10).

The test weight, protein, oil and starch data as well as the two and three year agronomic data will be added to the tables in the final report. **Also the County Standard Tests will be added later to the final report as harvesting has been severely delayed by weather conditions this season.**

**Table 1. Location information from research and education centers where the corn hybrid tests were conducted in Tennessee in 2009.**

<b>Research and Education Center</b>	<b>Location</b>	<b>Planting Date</b>	<b>Harvest Date</b>	<b>Plant Population</b>	<b>Soil Type</b>
<b>Early Season Corn Hybrids</b>					
East Tennessee	Knoxville	April 17, 2009	September 19, 2009	26,426	Sequatchie Silt Loam
Highland Rim	Springfield	April 17, 2009	September 29, 2009	20,038	Sango Silt Loam
Middle TN (irrigated)	Spring Hill	April 23, 2009	September 30, 2009	23,813	Maury Silt Loam
Middle TN (non-irrigated)	" "	April 24, 2009	October 1, 2009	23,813	Maury Silt Loam
Milan (irrigated)	Milan	April 23, 2009	September 29, 2009	26,426	Grenada Silt Loam
" (non-irrigated)	"	April 22, 2009	September 11, 2009	26,426	Grenada Silt Loam
Ames Plantation	Grand Junction	April 27, 2009	September 28, 2009	22,942	Lexington Silt Loam

<b>Research and Education Center</b>	<b>Location</b>	<b>Planting Date</b>	<b>Harvest Date</b>	<b>Plant Population</b>	<b>Soil Type</b>
<b>Medium Season Corn Hybrids</b>					
East Tennessee	Knoxville	April 17, 2009	September 29, 2009	26,426	Sequatchie Silt Loam
Highland Rim	Springfield	April 17, 2009	September 30, 2009	20,038	Sango Silt Loam
Middle TN (irrigated)	Spring Hill	April 23, 2009	October 1, 2009	21,780	Maury Silt Loam
Middle TN (non-irrigated)	" "	April 24, 2009	October 8, 2009	22,942	Maury Silt Loam
Milan (irrigated)	Milan	April 23, 2009	September 29, 2009	25,846	Grenada Silt Loam
" (non-irrigated)	"	April 22, 2009	September 28, 2009	25,265	Grenada Silt Loam
Ames Plantation	Grand Junction	April 27, 2009	September 29, 2009	22,651	Lexington Silt Loam

<b>Research and Education Center</b>	<b>Location</b>	<b>Planting Date</b>	<b>Harvest Date</b>	<b>Plant Population</b>	<b>Soil Type</b>
<b>Full Season Corn Hybrids</b>					
East Tennessee	Knoxville	April 17, 2009	September 29, 2009	26,426	Sequatchie Silt Loam
Highland Rim	Springfield	April 17, 2009	October 1, 2009	18,295	Sango Silt Loam
Middle TN (irrigated)	Spring Hill	April 23, 2009	September 30, 2009	23,522	Maury Silt Loam
Middle TN (non-irrigated)	" "	April 24, 2009	October 1, 2009	24,394	Maury Silt Loam
Milan (irrigated)	Milan	April 23, 2009	September 30, 2009	26,136	Grenada Silt Loam
" (non-irrigated)	"	April 22, 2009	September 28, 2009	25,846	Grenada Silt Loam
Ames Plantation	Grand Junction	April 27, 2009	September 29, 2009	22,361	Lexington Silt Loam

**Table 2. Mean yields of 45 early-season (<114 DAP) corn hybrids evaluated in seven environments in Tennessee during 2009.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Spring Hill			Milan		Ames	
		± Std Err (n=7)	Knoxville	(Irr.)	(Non-Irr.)	Springfield	(Irr.)		(Non-Irr.)
-----bu/a-----									
Augusta	A5337EVT3	195 ± 4	255	206	152	140	202	218	194
NK Brand	N72Q-CB/LL/RW	194 ± 4	251	203	134	171	191	208	203
Dyna-Gro	V 5373 VT3	192 ± 4	238	194	157	150	203	204	198
Agrigold	A6455VT3	191 ± 4	245	213	152	140	193	193	204
DeKalb	DKC63-84 (VT3)	190 ± 4	244	197	126	167	190	209	196
NK Brand	N68B-CB/LL/RW	189 ± 4	222	206	151	163	192	199	194
DeKalb	DKC63-14 (VT3)	189 ± 4	246	196	147	159	196	195	184
Great Lakes	6354G3VT3	188 ± 4	239	204	148	126	203	204	193
Great Lakes	5939G3VT3	188 ± 4	236	204	137	152	213	205	169
Dairyland	9009 (VT3)	185 ± 4	260	195	115	138	187	203	199
Agrigold	A6479VT3	185 ± 4	231	189	136	133	197	197	208
Belle	BX912VT3	184 ± 4	240	202	135	132	200	200	180
Dairyland	7611 (RR2/YGCB)	183 ± 4	236	205	128	142	186	191	194
Agrigold	A6533VT3	183 ± 4	236	207	123	118	194	199	203
Dyna-Gro	57V05 (VT3)	182 ± 4	235	189	118	132	201	203	197
Trisler Seeds	T-8A02VT3	182 ± 4	222	194	148	135	198	202	175
Agrigold	A6489VT3	182 ± 4	222	196	132	138	194	190	199
Croplan	6831VT3	182 ± 4	229	187	127	139	195	199	196
Agrigold	A6522BtRR	182 ± 4	227	208	136	128	184	187	200
Dekalb	DKC61-69 (VT3)	181 ± 4	226	203	130	145	193	188	183
Augusta	A5175CB	180 ± 4	242	192	123	137	186	201	178
Augusta	A06-06CB (LL)	179 ± 4	238	195	134	130	202	206	151
Croplan	6725VT3	179 ± 4	222	200	121	140	190	183	199
Dairyland	9313 (VT3)	179 ± 4	227	202	110	156	191	192	174
Trisler Seeds	T-6N52VT3	178 ± 4	234	190	137	123	190	191	184
Wyffels	W6871 (VT3)	177 ± 4	221	164	130	143	200	196	187
Augusta	A54-59CBLL	177 ± 4	244	185	140	118	201	200	152
Dyna-Gro	57V40 (VT3)	177 ± 4	237	202	130	115	170	189	197
Pioneer	33N58 (HX1/RR2/LL)	177 ± 4	245	169	99	137	192	194	201
Belle	BX921VT3	176 ± 4	232	193	136	125	186	196	167
Wyffels	W7383 (Bt)	176 ± 4	237	189	119	139	193	185	169
Wyffels	W7251 (VT3)	175 ± 4	224	190	134	125	178	179	193
Augusta	A-06-04HX (LL)	172 ± 4	217	201	125	129	176	179	178
DeKalb	DKC62-54 (VT3)	172 ± 4	217	180	131	137	172	179	185
Croplan	6986VT3	172 ± 4	225	173	119	144	180	190	172
Augusta	A5337CB	170 ± 4	222	164	144	134	187	179	158

**Table 2 (continued)**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Spring Hill		Springfield	Milan		Ames	
		± Std Err (n=7)	Knoxville	(Irr.) (Non-Irr.)		(Irr.)	(Non-Irr.)		
----- bu/a -----									
Trisler Seeds	T-7N88VT3	169 ± 4	225	163	129	137	185	185	158
Channel	210-61VT3 Brand	168 ± 4	222	181	110	120	180	187	174
Agrigold	A6399VT3	166 ± 4	218	190	113	117	182	182	162
Pioneer	34F96 (HX1/LL/RR2)	165 ± 4	225	173	106	114	180	183	173
Trisler Seeds	T-7A14VT3	164 ± 4	213	161	112	128	180	191	166
Dairyland	9810 (VT3)	163 ± 4	218	172	98	119	184	179	174
Belle	BX913CV	162 ± 4	200	156	123	112	188	197	159
Agrigold	A6497VTRR2	161 ± 4	233	154	111	130	187	173	139
Belle	BX910RR	154 ± 4	213	172	106	118	160	179	131
<b>Avg. (bu/a)</b>		<b>178</b>	<b>231</b>	<b>190</b>	<b>128</b>	<b>135</b>	<b>190</b>	<b>193</b>	<b>182</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>9</b>	<b>18</b>	<b>21</b>	<b>29</b>	<b>35</b>	<b>21</b>	<b>18</b>	<b>34</b>
<b>C.V. (%)</b>		<b>8.8</b>	<b>4.6</b>	<b>7.7</b>	<b>13.8</b>	<b>15.6</b>	<b>6.7</b>	<b>5.6</b>	<b>10.7</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

YGPL = contains genes for corn borer and rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

**Table 3. Overall mean yields and agronomic characteristics of 45 early-season corn hybrids evaluated in seven environments in Tennessee during 2009.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Moisture	Test	Lodging	Plant	Ear	Protein	Oil	Starch
		± Std Error (n=7) bu/a	at Harvest (n=7) %	Weight (n=1) lbs/bu	(n=2) %	Height <sup>‡</sup> (n=2) in.	Height <sup>‡</sup> (n=2) in.	(n=1) %	(n=1) %	(n=1) %
Augusta	A5337EVT3	195 ± 4	17.4	---	5	114	47	---	---	---
NK Brand	N72Q-CB/LL/RW	194 ± 4	18.1	---	1	106	41	---	---	---
Dyna-Gro	V 5373 VT3	192 ± 4	18.5	---	0	111	45	---	---	---
Agrigold	A6455VT3	191 ± 4	16.9	---	0	114	48	---	---	---
DeKalb	DKC63-84 (VT3)	190 ± 4	17.0	---	1	108	44	---	---	---
NK Brand	N68B-CB/LL/RW	189 ± 4	17.0	---	0	104	42	---	---	---
DeKalb	DKC63-14 (VT3)	189 ± 4	17.2	---	2	106	44	---	---	---
Great Lakes	6354G3VT3	188 ± 4	17.6	---	0	107	43	---	---	---
Great Lakes	5939G3VT3	188 ± 4	16.2	---	0	111	42	---	---	---
Dairyland	9009 (VT3)	185 ± 4	16.6	---	2	106	43	---	---	---
Agrigold	A6479VT3	185 ± 4	17.6	---	1	106	46	---	---	---
Belle	BX912VT3	184 ± 4	17.1	---	1	111	44	---	---	---
Dairyland	7611 (RR2/YGCB)	183 ± 4	17.0	---	0	113	42	---	---	---
Agrigold	A6533VT3	183 ± 4	17.9	---	0	105	42	---	---	---
Dyna-Gro	57V05 (VT3)	182 ± 4	18.4	---	2	112	43	---	---	---
Trisler Seeds	T-8A02VT3	182 ± 4	16.9	---	4	106	44	---	---	---
Agrigold	A6489VT3	182 ± 4	17.3	---	1	109	44	---	---	---
Croplan	6831VT3	182 ± 4	18.7	---	1	108	43	---	---	---
Agrigold	A6522BtRR	182 ± 4	17.2	---	1	108	43	---	---	---
Dekalb	DKC61-69 (VT3)	181 ± 4	16.4	---	1	108	43	---	---	---
Augusta	A5175CB	180 ± 4	17.0	---	0	112	46	---	---	---
Augusta	A06-06CB (LL)	179 ± 4	17.9	---	1	113	44	---	---	---
Croplan	6725VT3	179 ± 4	17.5	---	2	111	43	---	---	---
Dairyland	9313 (VT3)	179 ± 4	17.2	---	0	104	44	---	---	---
Trisler Seeds	T-6N52VT3	178 ± 4	16.6	---	0	101	42	---	---	---
Wyffels	W6871 (VT3)	177 ± 4	16.9	---	0	116	42	---	---	---
Augusta	A54-59CBLL	177 ± 4	16.0	---	1	111	44	---	---	---
Dyna-Gro	57V40 (VT3)	177 ± 4	17.1	---	0	113	41	---	---	---
Pioneer	33N58 (HX1/RR2/LL)	177 ± 4	16.6	---	0	108	44	---	---	---
Belle	BX921VT3	176 ± 4	17.0	---	2	107	41	---	---	---
Wyffels	W7383 (Bt)	176 ± 4	16.9	---	1	111	50	---	---	---
Wyffels	W7251 (VT3)	175 ± 4	17.4	---	1	106	44	---	---	---
Augusta	A-06-04HX (LL)	172 ± 4	17.8	---	0	112	47	---	---	---
DeKalb	DKC62-54 (VT3)	172 ± 4	16.2	---	7	106	42	---	---	---
Croplan	6986VT3	172 ± 4	17.2	---	1	103	47	---	---	---
Augusta	A5337CB	170 ± 4	18.9	---	1	109	44	---	---	---

**Table 3 (continued)**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Moisture	Test	Lodging	Plant	Ear	Protein	Oil	Starch
		± Std Error (n=7)	at Harvest (n=7)	Weight (n=1)	(n=2)	Height <sup>‡</sup> (n=2)	Height <sup>‡</sup> (n=2)	(n=1)	(n=1)	(n=1)
		bu/a	%	lbs/bu	%	in.	in.	%	%	%
Trisler Seeds	T-7N88VT3	169 ± 4	16.9	---	0	104	43	---	---	---
Channel	210-61VT3 Brand	168 ± 4	17.4	---	0	105	45	---	---	---
Agrigold	A6399VT3	166 ± 4	16.5	---	3	107	41	---	---	---
Pioneer	34F96 (HX1/LL/RR2)	165 ± 4	16.8	---	1	105	40	---	---	---
Trisler Seeds	T-7A14VT3	164 ± 4	17.2	---	1	102	43	---	---	---
Dairyland	9810 (VT3)	163 ± 4	16.9	---	0	108	46	---	---	---
Belle	BX913CV	162 ± 4	16.9	---	4	104	37	---	---	---
Agrigold	A6497VTRR2	161 ± 4	16.8	---	4	106	47	---	---	---
Belle	BX910RR	154 ± 4	16.7	---	5	98	41	---	---	---
<b>Average</b>		<b>178</b>	<b>17.2</b>		<b>1</b>	<b>108</b>	<b>44</b>			

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

YGPL = contains genes for corn borer and rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

Protein, Oil, and Starch on a dry weight basis

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

<sup>‡</sup>Average of Knoxville and Springfield.

**Table 4. Mean yields of 21 early-season (<114 DAP) corn hybrids evaluated in seven environments for two years (2008-2009) in Tennessee.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Spring Hill		Springfield	Milan		Ames	
		± Std Err (n=14)	Knoxville	(Irr.)		(Non-Irr.)	(Irr.)		(Non-Irr.)
		----- bu/a -----							
Dyna-Gro	V 5373 VT3	177 ± 3	227	190	140	128	205	160	191
Trisler Seeds	T-8A02VT3	174 ± 3	220	194	140	125	201	159	181
Dekalb	DKC61-69 (VT3)	174 ± 3	221	194	133	148	191	151	183
Agrigold	A6479VT3	172 ± 3	221	191	135	133	180	155	192
Agrigold	A6489VT3	171 ± 3	224	193	137	120	191	151	184
Agrigold	A6455VT3	171 ± 3	226	201	138	127	170	152	183
Augusta	A06-06CB (LL)	170 ± 3	231	194	138	126	198	156	148
Croplan	6831VT3	170 ± 3	220	183	129	138	180	153	184
Dairyland	7611 (RR2/YGCB)	169 ± 3	224	196	126	132	175	147	182
Dairyland	9313 (VT3)	169 ± 3	219	194	120	138	182	149	179
Dyna-Gro	57V05 (VT3)	168 ± 3	225	189	117	127	179	155	186
Wyffels	W7383 (Bt)	168 ± 3	238	182	124	122	179	146	184
Wyffels	W7251 (VT3)	168 ± 3	224	188	140	111	180	140	191
Dairyland	9009 (VT3)	166 ± 3	245	181	126	117	159	143	188
Pioneer	33N58 (HX1/RR2/LL)	166 ± 3	231	181	120	119	171	142	196
Augusta	A5175CB	164 ± 3	221	185	126	115	185	146	173
Augusta	A5337CB	162 ± 3	216	176	138	123	180	140	165
Augusta	A-06-04HX (LL)	162 ± 3	211	186	127	125	177	137	168
Pioneer	34F96 (HX1/LL/RR2)	157 ± 3	216	171	119	111	176	139	166
Agrigold	A6399VT3	155 ± 3	213	189	118	110	164	137	151
Trisler Seeds	T-7A14VT3	154 ± 3	211	167	118	103	167	141	173
<b>Avg. (bu/a)</b>		<b>167</b>	<b>223</b>	<b>187</b>	<b>129</b>	<b>124</b>	<b>180</b>	<b>148</b>	<b>178</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>9</b>	<b>19</b>	<b>21</b>	<b>22</b>	<b>33</b>	<b>22</b>	<b>17</b>	<b>26</b>
<b>C.V. (%)</b>		<b>9.4</b>	<b>5.5</b>	<b>7.9</b>	<b>11.4</b>	<b>17.9</b>	<b>8.4</b>	<b>7.9</b>	<b>9.6</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

**Table 5. Mean yields of eight early-season (<114 DAP) corn hybrids evaluated in six environments for three years (2007-2009) in Tennessee.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Spring			Milan		Ames
		± Std Err (n=18)	Knoxville	Hill (Non-Irr.)	Springfield	(Irr.)	(Non-Irr.)	
			----- bu/a -----					
Agrigold	A6479VT3	165 ± 2	202	139	128	200	155	164
Wyffels	W7383 (Bt)	162 ± 2	218	135	120	196	146	159
Croplan	6831VT3	161 ± 2	199	136	130	200	152	151
Agrigold	A6455VT3	160 ± 2	202	143	125	189	150	154
Dairyland	7611 (RR2/YGCB)	159 ± 2	200	130	132	198	143	150
Augusta	A5175CB	157 ± 2	202	133	113	201	146	147
Augusta	A5337CB	157 ± 2	197	143	119	202	141	139
Augusta	A-06-04HX (LL)	155 ± 2	186	134	123	195	145	147
	<b>Avg. (bu/a)</b>	<b>160</b>	<b>201</b>	<b>137</b>	<b>124</b>	<b>198</b>	<b>147</b>	<b>151</b>
	<b>L.S.D.<sub>.05</sub> (bu/a)</b>	<b>9</b>	<b>20</b>	<b>20</b>	<b>29</b>	<b>20</b>	<b>16</b>	<b>26</b>
	<b>C.V. (%)</b>	<b>9.5</b>	<b>6.7</b>	<b>10.4</b>	<b>16.7</b>	<b>6.7</b>	<b>7.4</b>	<b>11.4</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

<sup>‡</sup>Average of Knoxville and Springfield.

**Table 6. Mean yields of 42 medium-season (114-116 DAP) corn hybrids evaluated in seven environments in Tennessee during 2009.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Spring Hill				Milan		Ames
		± Std Err (n=7)	Knoxville	(Irr.)	(Non-Irr.)	Springfield	(Irr.)	(Non-Irr.)	
----- bu/a -----									
Terral-REV Brand	25HR39 (RR/LL/HX)	202 ± 4	250	167	212	151	210	216	209
Dairyland	9214Q (RR/LL/HXT)	199 ± 4	245	198	185	135	210	209	213
Dyna-Gro	58V24 (VT3)	197 ± 4	248	198	207	91	216	207	212
Augusta	A62-65GTCBLL	197 ± 4	236	189	191	134	200	214	213
Agrigold	A6633VT3	195 ± 4	267	164	157	130	227	203	220
Augusta	A73-64GTCBLL	195 ± 4	238	183	196	133	204	198	212
NK Brand	N77P-3000GT	194 ± 4	240	189	185	119	214	200	208
Augusta	A61-66CBLL	192 ± 4	240	183	181	161	211	192	176
Terral-REV Brand	26HR70 (RR/LL/HX)	192 ± 4	239	180	191	127	205	205	197
Belle	1655VT3	192 ± 4	226	176	210	132	207	203	190
Augusta	A5338CB	192 ± 5	239	181	199	111	211	196	204
Dyna-Gro	57P12 (RR/Bt)	192 ± 4	237	193	190	101	215	194	212
Terral-REV Brand	26HR50 (RR/LL/HX)	191 ± 4	253	170	159	118	218	207	213
Augusta	A08-01GTCLL (LL)	190 ± 4	244	178	185	125	205	199	194
Great Lakes	6576G3VT3	189 ± 4	242	181	207	123	197	190	184
Terral-REV Brand	25HR49 (RR/LL/HX)	189 ± 4	233	185	178	123	200	203	203
Belle	1457VT3	189 ± 4	244	160	186	128	207	209	191
Wyffels	W8681 (VT3)	189 ± 4	228	189	161	131	210	196	208
Dyna-Gro	58P59 (RR/Bt)	189 ± 4	248	177	177	112	201	206	201
Belle	1545VT3	189 ± 4	236	165	169	139	207	204	200
Trisler Seeds	T-9J38VT3	188 ± 4	221	176	221	115	185	190	209
Belle	BX990CV	188 ± 4	242	172	190	123	189	208	192
Dyna-Gro	57V21 (VT3)	187 ± 4	237	185	161	123	207	194	201
Belle	BX992CV	185 ± 4	259	154	175	121	204	192	189
Agrigold	A6632VT3	185 ± 4	234	162	196	121	201	190	191
Steyer	1147GTCBLL	185 ± 4	240	196	139	131	194	195	197
Augusta	A007P	184 ± 4	241	137	190	114	202	197	207
Croplan	7131VT3	183 ± 4	237	170	168	126	203	197	183
Pioneer	33F87 (HX1/LL/RR2)	182 ± 4	233	153	178	137	198	188	189
Augusta	A76-64CB	182 ± 4	242	166	152	114	206	197	199
NK Brand	N78N-3000GT	182 ± 4	240	157	188	135	190	167	198
Agrigold	A6639VT3	182 ± 4	219	161	208	118	186	196	184
Dairyland	7615 (RR2/YGCB)	180 ± 4	235	154	161	99	214	205	192
Dairyland	9414Q (RR/LL/HXT)	179 ± 4	224	157	202	116	194	187	174
Dyna-Gro	57K33 (RR)	179 ± 4	249	158	162	123	192	186	184
Dyna-Gro	57K58 (RR)	179 ± 4	245	171	128	136	174	196	199

**Table 6 (continued)**

Brand	Hybrid	Avg. Yield <sup>†</sup> ± Std Err (n=7)	Spring Hill			Milan		Ames	
			Knoxville	(Irr.)	(Non-Irr.)	Springfield	(Irr.)		(Non-Irr.)
Steyer	1157GT	178 ± 4	217	152	203	93	190	200	193
DeKalb	DKC65-44 (VT3)	177 ± 4	228	179	131	120	204	192	187
Steyer	1733W	176 ± 4	219	148	220	119	181	177	169
Terral-REV Brand	26R60 (RR)	176 ± 4	246	151	160	97	189	194	194
Croplan	7505VT3	175 ± 4	226	165	118	144	199	180	191
Belle	BX951VT3	170 ± 4	206	157	186	104	179	175	184
<b>Avg. (bu/a)</b>		<b>187</b>	<b>237</b>	<b>172</b>	<b>181</b>	<b>123</b>	<b>201</b>	<b>196</b>	<b>197</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>10</b>	<b>19</b>	<b>28</b>	<b>52</b>	<b>27</b>	<b>19</b>	<b>20</b>	<b>28</b>
<b>C.V. (%)</b>		<b>9.3</b>	<b>4.8</b>	<b>11.0</b>	<b>16.3</b>	<b>12.6</b>	<b>5.9</b>	<b>6.3</b>	<b>8.6</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

**Table 7. Overall mean yields and agronomic characteristics of 42 medium-season corn hybrids evaluated in seven environments in Tennessee during 2009.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Moisture	Test	Lodging	Plant	Ear	Protein	Oil	Starch
		± Std Error (n=7) bu/a	at Harvest (n=7) %	Weight (n=1) lbs/bu	(n=3) %	Height <sup>‡</sup> (n=2) in.	Height <sup>‡</sup> (n=2) in.	(n=1) %	(n=1) %	(n=1) %
Terral-REV Brand	25HR39 (RR/LL/HX)	202 ± 4	17.2	---	0	114	45	---	---	---
Dairyland	9214Q (RR/LL/HXT)	199 ± 4	17.9	---	0	109	44	---	---	---
Dyna-Gro	58V24 (VT3)	197 ± 4	18.0	---	0	111	43	---	---	---
Augusta	A62-65GTCBLL	197 ± 4	17.6	---	2	112	43	---	---	---
Agrigold	A6633VT3	195 ± 4	18.0	---	0	109	37	---	---	---
Augusta	A73-64GTCBLL	195 ± 4	17.4	---	0	105	40	---	---	---
NK Brand	N77P-3000GT	194 ± 4	18.1	---	0	112	45	---	---	---
Augusta	A61-66CBLL	192 ± 4	18.9	---	0	109	45	---	---	---
Terral-REV Brand	26HR70 (RR/LL/HX)	192 ± 4	17.6	---	0	120	48	---	---	---
Belle	1655VT3	192 ± 4	18.0	---	1	116	46	---	---	---
Augusta	A5338CB	192 ± 5	17.8	---	0	105	44	---	---	---
Dyna-Gro	57P12 (RR/Bt)	192 ± 4	18.0	---	1	117	44	---	---	---
Terral-REV Brand	26HR50 (RR/LL/HX)	191 ± 4	18.7	---	0	114	41	---	---	---
Augusta	A08-01GTCB (LL)	190 ± 4	18.0	---	0	108	44	---	---	---
Great Lakes	6576G3VT3	189 ± 4	18.2	---	0	108	37	---	---	---
Terral-REV Brand	25HR49 (RR/LL/HX)	189 ± 4	17.5	---	0	118	47	---	---	---
Belle	1457VT3	189 ± 4	17.9	---	0	105	44	---	---	---
Wyffels	W8681 (VT3)	189 ± 4	18.3	---	0	112	41	---	---	---
Dyna-Gro	58P59 (RR/Bt)	189 ± 4	18.0	---	0	108	46	---	---	---
Belle	1545VT3	189 ± 4	18.1	---	0	111	41	---	---	---
Trisler Seeds	T-9J38VT3	188 ± 4	17.3	---	2	110	43	---	---	---
Belle	BX990CV	188 ± 4	17.0	---	4	116	47	---	---	---
Dyna-Gro	57V21 (VT3)	187 ± 4	18.3	---	0	108	40	---	---	---
Belle	BX992CV	185 ± 4	17.6	---	2	113	50	---	---	---
Agrigold	A6632VT3	185 ± 4	18.1	---	0	102	37	---	---	---
Steyer	1147GTCBLL	185 ± 4	18.3	---	0	111	45	---	---	---
Augusta	A007P	184 ± 4	17.0	---	2	115	48	---	---	---
Croplan	7131VT3	183 ± 4	18.3	---	0	106	38	---	---	---
Pioneer	33F87 (HX1/LL/RR2)	182 ± 4	17.4	---	0	113	43	---	---	---
Augusta	A76-64CB	182 ± 4	18.2	---	1	110	42	---	---	---
NK Brand	N78N-3000GT	182 ± 4	18.7	---	0	118	43	---	---	---
Agrigold	A6639VT3	182 ± 4	18.1	---	0	104	40	---	---	---
Dairyland	7615 (RR2/YGCB)	180 ± 4	18.0	---	0	109	40	---	---	---
Dairyland	9414Q (RR/LL/HXT)	179 ± 4	17.8	---	0	106	37	---	---	---
Dyna-Gro	57K33 (RR)	179 ± 4	17.4	---	2	113	44	---	---	---
Dyna-Gro	57K58 (RR)	179 ± 4	17.3	---	5	110	43	---	---	---

**Table 7 (continued)**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Moisture	Test	Lodging	Plant	Ear	Protein	Oil	Starch
		± Std Error (n=7)	at Harvest (n=7)	Weight (n=1)	(n=3)	Height <sup>‡</sup> (n=2)	Height <sup>‡</sup> (n=2)	(n=1)	(n=1)	(n=1)
		bu/a	%	lbs/bu	%	in.	in.	%	%	%
Steyer	1157GT	178 ± 4	17.9	---	2	116	46	---	---	---
DeKalb	DKC65-44 (VT3)	177 ± 4	17.8	---	1	104	39	---	---	---
Steyer	1733W	176 ± 4	17.7	---	1	111	42	---	---	---
Terral-REV Brand	26R60 (RR)	176 ± 4	17.2	---	2	119	45	---	---	---
Croplan	7505VT3	175 ± 4	17.9	---	0	106	42	---	---	---
Belle	BX951VT3	170 ± 4	17.5	---	0	105	39	---	---	---
<b>Average</b>		<b>187</b>	<b>17.9</b>		<b>1</b>	<b>111</b>	<b>43</b>			

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

Protein, Oil, and Starch on a dry weight basis

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

<sup>‡</sup>Average of Knoxville and Springfield.

**Table 8. Mean yields of 18 medium-season (114-116 DAP) corn hybrids evaluated in seven environments for two years (2008-2009) in Tennessee.**

Brand	Hybrid	Avg. Yield <sup>†</sup> ± Std Err (n=14)	Spring Hill			Milan		Ames	
			Knoxville	(Irr.)	(Non-Irr.)	Springfield	(Irr.)		(Non-Irr.)
			----- bu/a -----						
Augusta	A76-64CB	177 ± 3	219	198	166	111	194	162	188
Dyna-Gro	57P12 (RR/Bt)	176 ± 3	221	207	169	104	179	162	189
Agrigold	A6633VT3	176 ± 3	230	194	119	120	211	165	190
Dyna-Gro	58V24 (VT3)	175 ± 3	229	222	174	92	172	156	181
Croplan	7131VT3	174 ± 3	214	194	153	120	194	164	180
Augusta	A5338CB	174 ± 3	227	202	152	113	195	143	186
Wyffels	W8681 (VT3)	173 ± 3	211	206	135	118	193	159	188
Dairyland	7615 (RR2/YGCB)	171 ± 3	218	191	150	103	192	160	184
Dyna-Gro	58P59 (RR/Bt)	170 ± 3	229	207	150	101	176	159	169
Dyna-Gro	57V21 (VT3)	170 ± 3	222	200	129	107	189	161	182
Trisler Seeds	T-9J38VT3	167 ± 3	203	201	142	104	178	149	191
Agrigold	A6632VT3	167 ± 3	209	187	144	110	177	164	176
Agrigold	A6639VT3	164 ± 3	193	187	151	104	181	157	173
Croplan	7505VT3	163 ± 3	199	193	120	118	179	150	183
NK Brand	N78N-3000GT	163 ± 3	221	181	155	111	185	105	182
Augusta	A007P	161 ± 3	214	179	147	97	167	140	183
Dyna-Gro	57K33 (RR)	159 ± 3	206	185	140	104	164	143	170
Dyna-Gro	57K58 (RR)	157 ± 3	216	197	119	110	145	139	172
	<b>Avg. (bu/a)</b>	<b>169</b>	<b>216</b>	<b>196</b>	<b>145</b>	<b>108</b>	<b>182</b>	<b>152</b>	<b>181</b>
	<b>L.S.D.<sub>.05</sub> (bu/a)</b>	<b>10</b>	<b>17</b>	<b>25</b>	<b>58</b>	<b>25</b>	<b>25</b>	<b>21</b>	<b>25</b>
	<b>C.V. (%)</b>	<b>9.7</b>	<b>5.4</b>	<b>8.7</b>	<b>18.6</b>	<b>14.7</b>	<b>9.2</b>	<b>9.7</b>	<b>9.2</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

**Table 9. Mean yields of eight medium-season (114-116 DAP) corn hybrids evaluated in six environments for three years (2007-2009) in Tennessee.**

Brand	Hybrid	Avg. Yield <sup>†</sup> ± Std Err (n=18)	Spring			Milan		Ames
			Knoxville	Hill (Non-Irr.)	Springfield	(Irr.)	(Non-Irr.)	
----- bu/a -----								
Agrigold	A6633VT3	165 ± 3	219	123	106	220	160	164
Dyna-Gro	57P12 (RR/Bt)	162 ± 2	209	151	100	196	158	157
Dairyland	7615 (RR2/YGCB)	161 ± 3	210	139	102	204	155	158
Augusta	A5338CB	161 ± 3	214	137	106	211	142	159
Dyna-Gro	58P59 (RR/Bt)	159 ± 3	220	139	99	196	153	147
Agrigold	A6639VT3	151 ± 2	178	137	96	190	157	148
Dyna-Gro	57K33 (RR)	149 ± 2	193	137	101	181	141	141
Dyna-Gro	57K58 (RR)	145 ± 2	199	115	105	170	138	141
<b>Avg. (bu/a)</b>		<b>157</b>	<b>205</b>	<b>135</b>	<b>102</b>	<b>196</b>	<b>150</b>	<b>152</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>9</b>	<b>19</b>	<b>39</b>	<b>23</b>	<b>22</b>	<b>19</b>	<b>23</b>
<b>C.V. (%)</b>		<b>9.7</b>	<b>6.4</b>	<b>15.8</b>	<b>15.2</b>	<b>7.7</b>	<b>8.9</b>	<b>9.9</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

W = white grain

LL = contains a gene for tolerance to glufosinate

<sup>‡</sup>Average of Knoxville and Springfield.

**Table 10. Mean yields of 25 full-season (>116 DAP) corn hybrids evaluated in seven environments in Tennessee during 2009.**

Brand	Hybrid	Avg. Yield <sup>†</sup> ± Std Err (n=7)	Spring Hill			Milan		Ames	
			Knoxville	(Irr.)	(Non-Irr.)	Springfield	(Irr.)		(Non-Irr.)
----- bu/a -----									
Terral-REV Brand	28HR20 (RR/LL/HX)	203 ± 4	270	189	161	143	225	212	223
Croplan	851VT3	197 ± 4	253	198	145	150	191	213	229
Augusta	A91-69VT3	195 ± 4	251	199	153	144	217	206	192
Augusta	A008VT3	192 ± 4	256	207	130	108	216	203	222
Dekalb	DKC67-23 (RR2/YGCB)	191 ± 4	252	164	173	129	211	198	215
Croplan	8505VT3	189 ± 4	253	200	153	113	206	200	197
Augusta	A08-13HXLL	188 ± 4	240	190	160	118	203	190	215
Dyna-Gro	58P27 (RR2,YGCB)	186 ± 4	234	196	171	118	192	202	186
Augusta	A08-13HX	185 ± 4	245	178	154	118	208	189	201
Dyna-Gro	58V69 (VT3)	184 ± 4	231	169	174	118	197	209	192
Dyna-Gro	V6263 (VT3)	184 ± 4	236	164	171	137	187	195	198
Terral-REV Brand	28R30 (RR)	177 ± 4	246	151	136	119	200	198	190
TN Exp	TN 0702 (W)	177 ± 4	243	163	133	116	194	206	185
DeKalb	DKC68-06 (RR2/YGCB)	173 ± 4	223	165	164	124	184	184	168
TN Exp	TN 0903W	171 ± 4	236	179	126	122	182	186	169
TN Exp	TN 0902	169 ± 4	230	171	161	102	187	184	147
Dyna-Gro	V5783 (VT3)	166 ± 4	184	158	148	122	159	189	199
Dyna-Gro	58K40 (RR)	165 ± 4	222	160	142	98	177	178	175
Wyffels	W9121 (VT3)	164 ± 4	210	170	148	101	180	184	154
TN Exp	TN 0704	163 ± 4	220	166	120	112	173	186	166
TN Exp	TN 0506 (W)	158 ± 4	223	151	113	103	174	187	157
TN Exp	TN 0901	155 ± 4	218	146	121	108	169	172	149
Steyer	1863W	151 ± 4	210	144	135	89	173	164	142
Augusta	A08-20LL	143 ± 4	192	129	126	99	155	155	148
TN Exp	TN 0904	90 ± 5	106	98	76	46	94	97	111
<b>Avg. (bu/a)</b>		<b>173</b>	<b>227</b>	<b>170</b>	<b>144</b>	<b>114</b>	<b>185</b>	<b>187</b>	<b>183</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>10</b>	<b>25</b>	<b>25</b>	<b>32</b>	<b>25</b>	<b>17</b>	<b>22</b>	<b>48</b>
<b>C.V. (%)</b>		<b>10.2</b>	<b>6.7</b>	<b>10.3</b>	<b>13.5</b>	<b>13.2</b>	<b>5.4</b>	<b>7.2</b>	<b>15.1</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

**Table 11. Overall mean yields and agronomic characteristics of 25 full-season corn hybrids evaluated in seven environments in Tennessee during 2009.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Moisture	Test	Lodging	Plant	Ear	Protein	Oil	Starch
		± Std Error (n=7)	at Harvest (n=7)	Weight (n=1)	(n=3)	Height <sup>‡</sup> (n=2)	Height <sup>‡</sup> (n=2)	(n=1)	(n=1)	(n=1)
		bu/a	%	lbs/bu	%	in.	in.	%	%	%
Terral-REV Br	28HR20 (RR/LL/HX)	203 ± 4	18.0	---	0	116	46	---	---	---
Croplan	851VT3	197 ± 4	17.5	---	0	108	42	---	---	---
Augusta	A91-69VT3	195 ± 4	19.9	---	0	113	48	---	---	---
Augusta	A008VT3	192 ± 4	17.7	---	0	109	44	---	---	---
Dekalb	DKC67-23 (RR2/YGCB)	191 ± 4	18.0	---	0	110	47	---	---	---
Croplan	8505VT3	189 ± 4	18.6	---	0	110	47	---	---	---
Augusta	A08-13HXLL	188 ± 4	18.3	---	0	107	50	---	---	---
Dyna-Gro	58P27 (RR2,YGCB)	186 ± 4	19.3	---	0	102	43	---	---	---
Augusta	A08-13HX	185 ± 4	18.3	---	0	112	51	---	---	---
Dyna-Gro	58V69 (VT3)	184 ± 4	18.5	---	2	114	46	---	---	---
Dyna-Gro	V6263 (VT3)	184 ± 4	18.4	---	0	120	53	---	---	---
Terral-REV Br	28R30 (RR)	177 ± 4	18.5	---	1	117	49	---	---	---
TN Exp	TN 0702 (W)	177 ± 4	18.3	---	2	109	46	---	---	---
DeKalb	DKC68-06 (RR2/YGCB)	173 ± 4	19.2	---	0	98	39	---	---	---
TN Exp	TN 0903W	171 ± 4	19.8	---	4	105	49	---	---	---
TN Exp	TN 0902	169 ± 4	18.3	---	0	108	48	---	---	---
Dyna-Gro	V5783 (VT3)	166 ± 4	18.5	---	9	108	43	---	---	---
Dyna-Gro	58K40 (RR)	165 ± 4	18.5	---	1	111	49	---	---	---
Wyffels	W9121 (VT3)	164 ± 4	17.8	---	0	107	42	---	---	---
TN Exp	TN 0704	163 ± 4	20.1	---	1	108	48	---	---	---
TN Exp	TN 0506 (W)	158 ± 4	19.2	---	1	104	48	---	---	---
TN Exp	TN 0901	155 ± 4	21.4	---	1	108	44	---	---	---
Steyer	1863W	151 ± 4	18.6	---	1	106	46	---	---	---
Augusta	A08-20LL	143 ± 4	17.8	---	3	110	44	---	---	---
TN Exp	TN 0904	90 ± 5	18.9	---	3	93	28	---	---	---
<b>Average</b>		<b>173</b>	<b>18.7</b>		<b>1</b>	<b>108</b>	<b>45</b>			

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

W = white grain

Protein, Oil, and Starch on a dry weight basis

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

<sup>‡</sup>Average of Knoxville and Springfield.

**Table 12. Mean yields of seven full-season (>116 DAP) corn hybrids evaluated in seven environments for two years (2008-2009) in Tennessee.**

Brand	Hybrid	Avg. Yield <sup>†</sup> ± Std Err (n=14)	Spring Hill			Milan		Ames	
			Knoxville	(Irr.)	(Non-Irr.)	Springfield	(Irr.)		(Non-Irr.)
			----- bu/a -----						
Dekalb	DKC67-23 (RR2/YGCB)	178 ± 3	225	180	159	111	211	165	193
Augusta	A008VT3	172 ± 3	228	211	124	101	188	161	192
Dyna-Gro	58P27 (RR2,YGCB)	166 ± 3	218	197	163	105	170	132	177
Dyna-Gro	58K40 (RR)	152 ± 3	198	163	135	94	178	133	165
TN Exp	TN 0702 (W)	151 ± 3	208	169	127	89	157	149	161
TN Exp	TN 0704	145 ± 3	197	166	120	91	144	137	157
TN Exp	TN 0506 (W)	141 ± 3	197	157	113	81	149	139	152
	<b>Avg. (bu/a)</b>	<b>158</b>	<b>210</b>	<b>177</b>	<b>134</b>	<b>96</b>	<b>171</b>	<b>145</b>	<b>171</b>
	<b>L.S.D.<sub>.05</sub> (bu/a)</b>	<b>10</b>	<b>21</b>	<b>25</b>	<b>27</b>	<b>27</b>	<b>21</b>	<b>22</b>	<b>35</b>
	<b>C.V. (%)</b>	<b>10.4</b>	<b>6.2</b>	<b>9.8</b>	<b>12.6</b>	<b>17.5</b>	<b>7.8</b>	<b>9.9</b>	<b>12.4</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

YGRW, RW, CRW = contains a gene for rootworm resistance

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

<sup>‡</sup>Average of Knoxville and Springfield.

W = white grain

LL = contains a gene for tolerance to glufosinate

**Table 13. Mean yields of five full-season (>116 DAP) corn hybrid evaluated in six environments for three years (2007-2009) in Tennessee.**

Brand	Hybrid	Avg. Yield <sup>†</sup>	Spring		Milan		Ames	
		± Std Err (n=18)	Knoxville	Hill (Non-Irr.)	Springfield (Irr.)	(Non-Irr.)		
----- bu/a -----								
Dekalb	DKC67-23 (RR2/YGCB)	168 ± 2	215	137	109	222	164	160
Dyna-Gro	58K40 (RR)	143 ± 2	189	116	85	191	132	142
TN Exp	TN 0702 (W)	142 ± 2	197	117	79	185	143	135
TN Exp	TN 0704	139 ± 2	188	114	89	167	139	134
TN Exp	TN 0506 (W)	133 ± 2	187	103	69	176	134	128
<b>Avg. (bu/a)</b>		<b>145</b>	<b>195</b>	<b>117</b>	<b>86</b>	<b>188</b>	<b>143</b>	<b>140</b>
<b>L.S.D.<sub>.05</sub> (bu/a)</b>		<b>10</b>	<b>20</b>	<b>25</b>	<b>27</b>	<b>20</b>	<b>22</b>	<b>32</b>
<b>C.V. (%)</b>		<b>10.6</b>	<b>6.5</b>	<b>13.2</b>	<b>20.4</b>	<b>6.7</b>	<b>10.1</b>	<b>13.3</b>

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance LL = contains a gene for tolerance to glufosinate

YGRW, RW, CRW = contains a gene for rootworm resistance

W = white grain

R, RR, RR2, R2, GT = contains a gene for tolerance to glyphosate

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

CL = contains a gene for tolerance to Imidazolinone class herbicides

<sup>†</sup>All Yields are adjusted to 15.5% moisture.

<sup>‡</sup>Average of Knoxville and Springfield.

**Table 14. Characteristics, as described by the seed company, of corn hybrids evaluated in yield tests in Tennessee during 2009.†**

Early-Season Corn Hybrid Entries		Grain		Herbicide		Released or	
Brand	Hybrid	Color	Maturity	Tolerance	BT Gene	Experimental	Comments from Companies
Agrigold	A6399VT3	Y	108	RR2	YGCB/RW	R	---
Agrigold	A6455VT3	Y	110	RR2	YGCB/RW	R	---
Agrigold	A6479VT3	Y	112	RR2	YGCB/RW	R	---
Agrigold	A6489VT3	Y	112	RR2	YGCB/RW	R	---
Agrigold	A6497VTRR2	Y	112	RR2	YGCB/RW	R	---
Agrigold	A6522BtRR	Y	113	RR2	YGCB	R	---
Agrigold	A6533VT3	Y	113	RR2	YGCB/RW	R	---
Augusta	A-06-04HX (LL)	Y	109	LL	HX	R	Workhorse, standability, stress tolerant
Augusta	A06-06CB (LL)	Y	111	LL	Bt	R	High test weight
Augusta	A5175CB	Y	109	---	CB	R	Highly adapted early hybrid, very healthy
Augusta	A5337CB	Y	113	---	YG	R	Good in corn after corn, low to high populations
Augusta	A5337EVT3	Y	113	RR	CB/RW	R	---
Augusta	A54-59CBLL	Y	109	LL	CB	R	Extremely strong performance for maturity
Belle	BX910RR	Y	110	RR2	---	E	---
Belle	BX912VT3	Y	112	RR2	YGCB/RW	E	---
Belle	BX913CV	Y	113	---	---	E	---
Belle	BX921VT3	Y	112	RR2	YGCB/RW	E	---
Croplan	6725VT3	Y	113	RR	YGCB/RW	R	---
Croplan	6831VT3	Y	112	RR	YGCB/RW	R	Great silage, not for poorly drained soils
Croplan	6986VT3	Y	113	RR	CRW/Bt	R	Avoid sandy soils, "improved 6886"
Crow's	210-61VT3	Y	110	RR	YGCB/RW	R	---
Dairyland	7611 (RR2/YGCB)	Y	111	RR2	YGCB	R	---
Dairyland	9009 (VT3)	Y	109	RR2	YGCB/RW	R	---
Dairyland	9313 (VT3)	Y	113	RR2	YGCB/RW	R	---
Dairyland	9810 (VT3)	Y	110	RR	YGCB/RW	R	---
Dekalb	DKC61-69 (VT3)	Y	111	RR	YGCB/RW	R	---
DeKalb	DKC62-54 (VT3)	Y	112	RR	YGCB/RW	R	---
DeKalb	DKC63-14 (VT3)	Y	113	RR	YGCB/RW	R	---
DeKalb	DKC63-84 (VT3)	Y	113	RR	YGCB/RW	R	---
Dyna-Gro	57V05 (VT3)	Y	113	RR2	YGCB/RW	R	High yield, drought tolerant, all soils
Dyna-Gro	57V40 (VT3)	Y	112	RR	YGCB/RW	R	---
Dyna-Gro	V 5373 VT3	Y	113	RR	CB/RW	R	High yield, stress tolerant
Great Lakes	5939G3VT3	Y	109	RR	YGCB/RW	R	---
Great Lakes	6354G3VT3	Y	113	RR	YGCB/RW	R	---
NK Brand	N68B-CB/LL/RW	Y	110	RR/LL	YGCB/RW	R	Stress tolerant, responsive to high yield environments
NK Brand	N72Q-CB/LL/RW	Y	112	RR/LL	YGCB/RW	R	Best in high yield environments
Pioneer	33N58 (HX1/RR2/LL)	Y	113	RR2/LL	HX1	R	---
Pioneer	34F96 (HX1/LL/RR2)	Y	111	RR2/LL	HX1	R	---
Trisler Seeds	T-6N52VT3	Y	110	RR	YGCB/RW	R	Adapted to light or dark soils
Trisler Seeds	T-7A14VT3	Y	111	RR	YGCB/RW	R	Suited for marginal soils
Trisler Seeds	T-7N88VT3	Y	112	RR	YGCB/RW	R	Delivers consistency in marginal soils
Trisler Seeds	T-8A02VT3	Y	113	RR	YGCB/RW	R	High yield on most soils
Wyffels	W6871 (VT3)	Y	110	RR2	YGCB/RW	R	New high yielding genetics
Wyffels	W7251 (VT3)	Y	111	RR2	YGCB/RW	R	Stable top end yield
Wyffels	W7383 (Bt)	Y	112	---	YGCB	R	Consistent high yield across variable soils

Table 14 (continued)

Medium-Season Corn Hybrid Entries		Grain		Herbicide		Released or	
Brand	Hybrid	Color	Maturity	Tolerance	BT Gene	Experimental	Comments from Companies
Augusta	A007P	Y	115	---	---	R	Conventional
Agrigold	A6632VT3	Y	115	RR2	YGCB/RW	R	---
Agrigold	A6633VT3	Y	115	RR2	YGCB/RW	R	---
Agrigold	A6639VT3	Y	115	RR2	YGCB/RW	R	---
Augusta	A08-01GTCB (LL)	Y	114	GT/LL	Bt	R	Workhorse/Racehorse,high popln,excel GLS tolerance
Augusta	A5338CB	Y	116	---	YG	R	High yield environments, highly digestible silage
Augusta	A61-66CBLL	Y	116	LL	CB	R	---
Augusta	A62-65GTCBLL	Y	115	GT/LL	CB	R	---
Augusta	A73-64GTCBLL	Y	114	GT/LL	CB	R	White cob,stress tolerant,high yield, low to high poplns.
Augusta	A76-64CB	Y	116	---	CB	E	Medium size, low ear, high yields
Belle	1457VT3	Y	114	RR2	YGCB/RW	R	---
Belle	1545VT3	Y	115	RR2	YGCB/RW	R	---
Belle	1655VT3	Y	116	RR2	YGCB/RW	R	---
Belle	BX951VT3	Y	115	RR2	YGCB/RW	E	---
Belle	BX990CV	Y	115	---	---	E	---
Belle	BX992CV	Y	116	---	---	E	---
Croplan	7131VT3	Y	115	RR	YGCB/RW	R	High yield
Croplan	7505VT3	Y	115	RR	YGCB/RW	R	Great disease tolerance, responds to high population
Dairyland	7615 (RR2/YGCB)	Y	115	RR2	YGCB	R	---
Dairyland	9214Q (RR/LL/HXT)	Y	114	RR/LL	HXT	R	---
Dairyland	9414Q (RR/LL/HXT)	Y	114	RR/LL	HXT	R	---
DeKalb	DKC65-44 (VT3)	Y	115	RR	YGCB/RW	R	---
Dyna-Gro	57K33 (RR)	Y	114	RR2	---	R	Very good drought tolerance, silage
Dyna-Gro	57K58 (RR)	Y	115	RR2	---	R	Very good drought tolerance, silage, all soils
Dyna-Gro	57P12 (RR/Bt)	Y	115	RR2	YGCB	R	High yield, drought tolerance, all soils
Dyna-Gro	57V21 (VT3)	Y	115	RR2	YGCB/RW	R	Disease resistance, high fertility soils, irrigation
Dyna-Gro	58P59 (RR/Bt)	Y	116	RR2	YGCB	R	High yield, silage hybrid
Dyna-Gro	58V24 (VT3)	Y	116	RR2	YGCB/RW	R	High yield, good drought tolerance
Great Lakes	6576G3VT3	Y	115	RR	YGCB/RW	R	---
NK Brand	N77P-3000GT	Y	114	RR	CB	R	Well suited to marginal soils
NK Brand	N78N-3000GT	Y	116	RR/LL	CB	R	Best suited to irrigated,high yield environments
Pioneer	33F87 (HX1/LL/RR2)	Y	114	RR2/LL	HX1	R	---
REV Brand	RV2539HR (RR/LL/HX)	Y	115	RR/LL	HX1	E	---
REV Brand	RV2549HR (RR/LL/HX)	Y	115	RR/LL	HX1	E	---
REV Brand	RV2650HR (RR/LL/HX)	Y	116	RR/LL	HX1	E	---
REV Brand	RV2660R	Y	116	RR	---	E	---
REV Brand	RV2670HR (RR/LL/HX)	Y	116	RR/LL	HX1	E	---
Steyer	1147GTCBLL	Y	114	RR/LL	YGCB	R	Exceptional plant health & stress tolerance
Steyer	1157GT	Y	115	RR	---	R	Excellent response to high fertility
Steyer	1733W	W	114	---	---	E	Food grade white corn
Trisler Seeds	T-9J38VT3	Y	116	RR	YGCB/RW	R	Well suited for most soils
Wyffels	W8681 (VT3)	Y	115	RR2	YGCB/RW	R	Reliable top end yield, excellent plant health

Table 14 (continued)

Full-Season Corn Hybrid Entries		Grain		Herbicide		Released or	
Brand	Hybrid	Color	Maturity	Tolerance	BT Gene	Experimental	Comments from Companies
Augusta	A008VT3	Y	117	RR	CB/RW	R	Workhorse and racehorse
Augusta	A08-13HX	Y	118	---	HX	R	---
Augusta	A08-13HXLL	Y	117	LL	HX	R	---
Augusta	A08-20LL	Y	117	LL	---	R	---
Augusta	A91-69VT3	Y	119	RR	CB/RW	R	Southern adaptation
Croplan	8505VT3	Y	118	RR	YGCB/RW	R	---
Croplan	851VT3	Y	118	RR	YGCB/RW	R	---
Dekalb	DKC67-23 (RR2/YGCB)	Y	117	RR2	YGCB	R	---
DeKalb	DKC68-06 (RR2/YGCB)	Y	118	RR	YGCB	R	---
Dyna-Gro	58K40 (RR)	Y	117	RR2	---	R	Very good drought tolerance, silage
Dyna-Gro	58P27 (RR2,YGCB)	Y	119	RR2	YGCB	R	Sandy silt soils, defensive, silage, good drought
Dyna-Gro	58V69 (VT3)	Y	119	RR	YGCB/RW	R	---
Dyna-Gro	V5783 (VT3)	Y	117	RR	YGCB/RW	R	---
Dyna-Gro	V6263 (VT3)	Y	121	RR	YGCB/RW	R	---
REV Brand	RV2820HR (RR/LL/HX)	Y	118	RR/LL	HX1	E	---
REV Brand	RV2830R	Y	118	RR	---	E	---
Steyer	1863W	Y	118	---	---	R	---
TN Exp	TN 0506 (W)	W	120	---	---	E	---
TN Exp	TN 0702 (W)	W	120	---	---	E	---
TN Exp	TN 0704	Y	120	---	---	E	---
TN Exp	TN 0901	Y	120	---	---	E	---
TN Exp	TN 0902	Y	120	---	---	E	---
TN Exp	TN 0903W	W	120	---	---	E	---
TN Exp	TN 0904	Y	120	---	---	E	---
Wyffels	W9121 (VT3)	Y	117	RR2	YGCB/RW	R	Top end yield, excellent standability

VT3 = contains genes for European corn borer, corn root worm, and glyphosate resistance

Bt, YG, YGCB, CB, HX = contains a *Bacillus thuringiensis* gene for insect resistance

CBRW, RW, CRW = contains a gene for rootworm resistance

YGPL = contains genes for corn borer and rootworm resistance

RR, R, R2, RR2, GT = contains a gene for tolerance to glyphosate

LL = contains a gene for tolerance to glufosinate

W = white grain

CL = contains a gene for tolerance to Imidazolinone class herbicides

† Information on this table provided by the respective seed companies.

**Table 15. Contact information for corn hybrid seed companies evaluated in yield tests in Tennessee during 2009.**

Company	Contact	Phone	Email	Web site	Address
AgriGold Hybrids		618-943-5776		<a href="http://www.agrigold.com">www.agrigold.com</a>	RR#1 Box 203, St. Francisville, IL 62460
Augusta Seed Corporation	Matt Rawley	540-886-6055 540-255-5902	<a href="mailto:augustaseed@aol.com">augustaseed@aol.com</a>		473 Tisdale Farm Ln, Stuarton, VA 24401
Belle Southern Hybrids	Lane Dill Jimmy Wray	901-233-0274 270-832-3843	<a href="mailto:lanedill@cullumseeds.com">lanedill@cullumseeds.com</a> <a href="mailto:jimmywray@jwrayseeds.com">jimmywray@jwrayseeds.com</a>	<a href="http://www.bellecorn.com">www.bellecorn.com</a>	P.O. Box 178, Fisher, AR 72429 6497 Turner Landing Rd., LaCenter, KY 42056
Croplan Genetics	Jesse Witt Kieth Savin Jim Payne Ashley Plymale Darrin Holder	256-221-5932 731-610-7006 901-225-2032 270-719-1570 270-207-0190	<a href="mailto:jpayne@ourcoop.com">jpayne@ourcoop.com</a>	<a href="http://www.croplangenetics.com">www.croplangenetics.com</a>	Agrilince and Tennessee Farmers Co-op Locations
Crow's Hybrid Corn Co.	Carl Gardner	731-431-6839	<a href="mailto:carl.gardner@crowshybrid.com">carl.gardner@crowshybrid.com</a>	<a href="http://www.crowshybrid.com">www.crowshybrid.com</a>	3395 Leatherwood Rd, Williamsport, TN 38487
Dairyland Seed Co	Lanny Warren	731-234-2921	<a href="mailto:lanny.warren@charter.net">lanny.warren@charter.net</a>	<a href="http://www.dairylandseed.com">www.dairylandseed.com</a> <a href="http://www.monsanto.com">www.monsanto.com</a> <a href="http://www.dekalb.com">www.dekalb.com</a>	208 South Thompson St., Union City, TN 38261
Monsanto (Dekalb)		800-335-2676			800 N. Lindberg Blvd, St. Louis, MO 63167
Crop Production Services (Dyna-Gro)	Brandon Sheridan Steve Johnson	901-277-3638 731-885-5121	<a href="mailto:brandon.sheridan@uap.com">brandon.sheridan@uap.com</a> <a href="mailto:sjohnson@agriumretail.com">sjohnson@agriumretail.com</a>	<a href="http://www.dynagroseed.com">www.dynagroseed.com</a>	57 Germantown Ct Suite 200, Cordova, TN 38018 530 N. Fifth St/ P O Box 40, Union City, TN 38281
Great Lakes Hybrids	Tim Jordal	800-257-7333	<a href="mailto:tim.jordal@greatlakeshybrids.com">tim.jordal@greatlakeshybrids.com</a>	<a href="http://www.greatlakeshybrids.com">www.greatlakeshybrids.com</a>	9915 W. M-21 Hwy, Ovid, MI 48866 7500 Olson Memorial Hwy Golden Valley, MN 55427
Syngenta (NK Brand)	Jameson Wade	270-293-7942		<a href="http://www.nk-us.com">www.nk-us.com</a>	700 Boulevard South, Suite 302 Huntsville, AL 35802
Pioneer Hi-Bred Int.	Michael Hughes	800-331-2475	<a href="mailto:michael.hughes@pioneer.com">michael.hughes@pioneer.com</a>	<a href="http://www.pioneer.com">www.pioneer.com</a>	
Steyer Seeds	Joe Steyer Tom Jones Phil Coffman	800-231-4274 270-213-0020 270-832-7362	<a href="mailto:joesteyer@yahoo.com">joesteyer@yahoo.com</a> <a href="mailto:steyerseeds@steyerseeds.com">steyerseeds@steyerseeds.com</a>	<a href="http://www.steyerseeds.com">www.steyerseeds.com</a>	6154 N. Co. Rd. 33, Tiffin, OH 44883
University of Tennessee	Dennis West	865-974-8826	<a href="mailto:dwest3@utk.edu">dwest3@utk.edu</a>		3421 Joe Johnson Dr, Knoxville, TN 37996-4561
Terral Seed Inc	Larry Mullen	318-559-2840	<a href="mailto:lmullen@terralseed.com">lmullen@terralseed.com</a>	<a href="http://www.terralseed.com">www.terralseed.com</a>	P O Box 826, Lake Providence, LA 71254
Trisler Seeds Inc	Derrel Wegner	270-853-2360	<a href="mailto:derrel.wegner@trisler.com">derrel.wegner@trisler.com</a>	<a href="http://www.trisler.com">www.trisler.com</a>	200 Sullivan Ave., Paducah, KY 42003
Wyffels Hybrids Inc.	Scott Janes	888-786-4537	<a href="mailto:scojan@milesnmore.com">scojan@milesnmore.com</a>	<a href="http://www.wyffels.com">www.wyffels.com</a>	Miles Farm Supply, P.O. Box 22879