

# **Corn Hybrid Silage Tests in Tennessee**

## **2005**

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[www.utcrops.com](http://www.utcrops.com)

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## CORN SILAGE YIELD TESTS 2005

**Experimental Procedures:** 26 corn hybrids were evaluated for silage yield and quality in 2005. The test was conducted at the East Tennessee, Knoxville; Highland Rim, Springfield; Middle Tennessee, Spring Hill; and Greeneville Research and Education Centers (REC). The growing conditions and the moisture supply were favorable throughout the growing season at all locations. Due to poor plant stands the test was not harvested at the Middle TN REC.

The plot size at all locations consisted of two rows 30 ft. in length and replicated three times. Yields presented were adjusted to both dry weight and 65% moisture. The plant populations as well as the planting and harvesting dates are given in Table 1.

Plots were harvested by commercial silage harvesters. A sub-sample from each plot of approximately 4 lbs was taken for analysis. Fresh weight and dried weight was recorded on each sample for determination of moisture at harvest. The samples were then ground and analyzed for nutrient content. Silage quality analyses were provided by the Cumberland Valley Analytical Services, Inc., Hagerstown, MD.

**Growing Season:** The 2005 season was characterized by several timely rainfall events during critical periods of the growing season that were prompted by hurricane aftermaths passing through most of the state, especially Dennis, Katrina, and Rita. Daytime temperatures were high (several 90+ F) during pollination and grain fill periods at all locations.

### **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. 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 1.3 tons/a and the mean yield of Hybrid A was 9.3 tons/a and the mean yield of Hybrid B was 8.2 tons/a, then the two hybrids are not statistically different in yield because the difference of 1.1 tons/a is less than the minimum of 1.3 tons/a required for them to be significant. Similarly, if the average yield of Hybrid C was 10.6 tons/a then it is significantly higher yielding than both Hybrid B ( $10.6 - 8.2 = 2.4$  tons/a > LSD of 1.3) and Hybrid A ( $10.6 - 9.3 = 1.3$  tons/a = LSD of 1.3).

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 mean square 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.

**Table 1. Location information from Research and Education Centers where the corn silage variety tests were conducted in 2005.**

Research and Education Center	Location	Planting Date	Harvest Date	Plant Population
East Tennessee, Knoxville	Knoxville	4/18/2005	8/16/2005	27,588
Greenville	Greenville	5/9/2005	8/17/2005	27,588
Plateau	Crossville	5/9/2005	8/31/2005	29,911
Highland Rim	Springfield	4/18/2005	8/15/2005	26,717

**Table 2. Mean yields † of 26 corn hybrids evaluated for silage at four locations in Tennessee during 2005.**

Brand	Hybrid	Dry Weight	65% Moisture	----- Dry Weight -----			
		Avg. Yield ± Std Err. (n=4)	Avg. Yield ± Std Err. (n=4)	Knoxville	Greenville	Crossville	Springfield
		-----tons/a-----					
Dyna Gro	58K40 (RR)	8.6 ± 0.3	24.6 ± 0.8	11.9	6.0	9.5	7.0
DeKalb	DKC69-71 (RR2/YGCB)	8.5 ± 0.3	24.2 ± 0.9	11.0	6.3	9.7	6.8
NK Brand	N91-R9	7.9 ± 0.3	22.4 ± 0.9	11.1	6.3	8.3	5.8
FFR	755 HX (LL)	7.8 ± 0.3	22.3 ± 0.9	10.1	6.2	9.2	5.7
Pioneer	31G68 (YGCB)	7.8 ± 0.3	22.3 ± 0.8	9.0	7.2	8.6	6.4
FFR	886 RR2	7.8 ± 0.3	22.3 ± 0.8	9.7	7.4	8.0	6.1
Dyna Gro	58K22 (RR)	7.7 ± 0.3	22.0 ± 0.8	10.2	6.2	9.1	5.4
FFR	746 RR2/Bt	7.7 ± 0.3	21.9 ± 0.8	9.7	6.1	8.7	6.1
Pioneer	32D99	7.6 ± 0.3	21.9 ± 0.8	10.4	6.1	8.1	6.0
Pioneer	33V15	7.6 ± 0.3	21.7 ± 0.8	10.8	5.8	8.4	5.4
FFR	900 BT	7.6 ± 0.3	21.6 ± 0.8	9.9	6.1	9.0	5.2
DeKalb	DKC66-21 (YGCB)	7.5 ± 0.3	21.5 ± 0.8	9.7	6.2	8.7	5.3
Dyna Gro	57N96	7.4 ± 0.3	21.3 ± 0.8	10.3	6.1	7.8	5.6
Pioneer	31R87 (RR2)	7.4 ± 0.3	21.1 ± 0.8	10.1	6.0	8.2	5.3
Vigoro	V59YR52 (RR/YGCB)	7.3 ± 0.3	21.0 ± 0.8	9.5	6.1	7.8	6.0
FFR	843 RR2/Bt	7.3 ± 0.3	20.8 ± 0.9	9.3	5.8	8.0	6.1
TN Exp	TN 0501	7.3 ± 0.3	20.7 ± 0.8	8.7	6.2	8.3	5.8
Dyna Gro	58P59 (RR/YG)	7.0 ± 0.3	19.9 ± 0.8	8.8	5.2	7.8	5.9
Pioneer	33D63	6.9 ± 0.3	19.7 ± 0.9	9.1	6.3	6.9	5.2
TN Exp	TN 0503	6.8 ± 0.3	19.3 ± 0.8	8.2	5.5	8.1	5.2
Mycogen	TMF 2N802 (RR)	6.8 ± 0.3	19.3 ± 0.8	9.4	5.8	7.2	4.6
FFR	693 RR2	6.7 ± 0.3	19.2 ± 0.8	9.5	4.6	7.0	5.7
Vigoro	V58YR2 (RR/YGCB)	6.7 ± 0.3	19.1 ± 0.8	9.2	5.1	7.6	4.8
TN Exp	TN 0504	6.7 ± 0.3	19.0 ± 0.9	7.5	4.6	7.4	7.2
Mycogen	F2F797	6.6 ± 0.3	19.0 ± 0.8	8.3	4.5	8.5	5.2
TN Exp	TN 0502	6.2 ± 0.3	17.7 ± 0.9	8.2	5.3	6.3	5.1
<b>Avg. (tons/a)</b>		<b>7.3</b>	<b>20.9</b>	<b>9.6</b>	<b>5.9</b>	<b>8.1</b>	<b>5.7</b>
<b>L.S.D.<sub>.05</sub> (tons/a)</b>		<b>0.8</b>	<b>2.2</b>	<b>1.6</b>	<b>1.6</b>	<b>1.5</b>	<b>1.6</b>
<b>C.V. (%)</b>		<b>12.7</b>	<b>12.7</b>	<b>9.8</b>	<b>16.2</b>	<b>11.3</b>	<b>15.9</b>

† all silage yields are adjusted to dry weight basis unless otherwise indicated.

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

RR, RR2 = contains a gene for tolerance to glyphosate

LL = contains a gene for tolerance to glufosinate

CL = contains a gene for tolerance to Imidazolinone class herbicides

**Table 3. Mean yields † and agronomic characteristics of 26 corn hybrids evaluated for silage at four locations in Tennessee during 2005.**

Brand	Hybrid	Dry Weight	65% Moisture	Moisture at harvest	Lodging	Plant Height	Ear Height
		Avg. Yield ± Std Err. (n=4)	Avg. Yield ± Std Err. (n=4)				
		tons/a	tons/a	%	%	inches	inches
Dyna Gro	58K40 (RR)	8.6 ± 0.3	24.6 ± 0.8	58.2	0	112	49
DeKalb	DKC69-71 (RR2/YGCB)	8.5 ± 0.3	24.2 ± 0.9	59.2	1	105	46
NK Brand	N91-R9	7.9 ± 0.3	22.4 ± 0.9	61.3	0	119	49
FFR	755 HX (LL)	7.8 ± 0.3	22.3 ± 0.9	58.7	1	116	52
Pioneer	31G68 (YGCB)	7.8 ± 0.3	22.3 ± 0.8	54.9	0	107	46
FFR	886 RR2	7.8 ± 0.3	22.3 ± 0.8	61.9	0	113	49
Dyna Gro	58K22 (RR)	7.7 ± 0.3	22.0 ± 0.8	59.1	0	107	47
FFR	746 RR2/Bt	7.7 ± 0.3	21.9 ± 0.8	60.4	0	109	50
Pioneer	32D99	7.6 ± 0.3	21.9 ± 0.8	56.4	0	107	47
Pioneer	33V15	7.6 ± 0.3	21.7 ± 0.8	54.2	0	109	42
FFR	900 BT	7.6 ± 0.3	21.6 ± 0.8	57.4	0	105	41
DeKalb	DKC66-21 (YGCB)	7.5 ± 0.3	21.5 ± 0.8	52.5	0	99	40
Dyna Gro	57N96	7.4 ± 0.3	21.3 ± 0.8	58.0	1	102	39
Pioneer	31R87 (RR2)	7.4 ± 0.3	21.1 ± 0.8	58.0	0	107	47
Vigoro	V59YR52 (RR/YGCB)	7.3 ± 0.3	21.0 ± 0.8	59.8	0	106	51
FFR	843 RR2/Bt	7.3 ± 0.3	20.8 ± 0.9	60.6	0	102	45
TN Exp	TN 0501	7.3 ± 0.3	20.7 ± 0.8	62.6	2	115	50
Dyna Gro	58P59 (RR/YG)	7.0 ± 0.3	19.9 ± 0.8	59.7	0	103	42
Pioneer	33D63	6.9 ± 0.3	19.7 ± 0.9	57.7	0	100	40
TN Exp	TN 0503	6.8 ± 0.3	19.3 ± 0.8	65.2	1	110	48
Mycogen	TMF 2N802 (RR)	6.8 ± 0.3	19.3 ± 0.8	58.5	0	104	39
FFR	693 RR2	6.7 ± 0.3	19.2 ± 0.8	57.5	1	107	43
Vigoro	V58YR2 (RR/YGCB)	6.7 ± 0.3	19.1 ± 0.8	56.4	0	104	40
TN Exp	TN 0504	6.7 ± 0.3	19.0 ± 0.9	62.3	0	112	48
Mycogen	F2F797	6.6 ± 0.3	19.0 ± 0.8	61.6	1	103	47
TN Exp	TN 0502	6.2 ± 0.3	17.7 ± 0.9	60.0	1	110	48

Codes:

† yields reported are dry weight basis unless otherwise indicated

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

RR, RR2 = contains a gene for tolerance to glyphosate

LL = contains a gene for tolerance to glufosinate

CL = contains a gene for tolerance to Imidazolinone class herbicides

**Table 4. Mean yields † and feed quality characteristics of 26 corn hybrids evaluated for silage at four locations in Tennessee during 2005.**

Brand	Hybrid	Dry Weight										
		Avg. Yield ± Std Err. (n=4) tons/a	Moisture at Harvest (n=4) %	Crude Protein (n=4) % dm	NDF (n=4) % dm	NDF 48h IV Digest (n=4) % of NDF	Starch (n=4) % dm	ADF (n=4) % dm	TDN (n=4) % dm	NEL (n=4) Mcal/lb	Milk/ton (n=4) lbs/ton	Milk/acre (n=4) lbs/acre
Dyna Gro	58K40 (RR)	8.6 ± 0.3	58.2	7.3	47.8	63.7	29.0	27.6	71.4	0.740	3595	30915
DeKalb	DKC69-71 (RR2/YGCB)	8.5 ± 0.3	59.2	7.1	49.9	62.1	27.1	28.6	70.2	0.727	3495	29566
NK Brand	N91-R9	7.9 ± 0.3	61.3	7.5	49.4	63.3	27.4	28.5	71.8	0.745	3622	28432
FFR	755 HX (LL)	7.8 ± 0.3	58.7	6.9	47.1	62.7	29.5	27.1	71.9	0.746	3621	28281
Pioneer	31G68 (YGCB)	7.8 ± 0.3	54.9	7.1	45.7	65.9	31.2	25.8	72.5	0.753	3697	28837
FFR	886 RR2	7.8 ± 0.3	61.9	7.1	49.6	63.4	27.4	29.1	71.7	0.744	3614	28192
Dyna Gro	58K22 (RR)	7.7 ± 0.3	59.1	7.1	47.9	65.0	29.0	27.5	72.4	0.752	3681	28342
FFR	746 RR2/Bt	7.7 ± 0.3	60.4	7.1	44.7	62.2	32.8	25.4	72.6	0.754	3668	28099
Pioneer	32D99	7.6 ± 0.3	56.4	7.2	44.7	64.8	32.5	25.4	72.4	0.752	3681	28125
Pioneer	33V15	7.6 ± 0.3	54.2	7.3	45.4	66.7	31.4	25.7	72.6	0.754	3705	28159
FFR	900 BT	7.6 ± 0.3	57.4	7.1	44.9	64.1	32.1	25.5	72.8	0.757	3703	28035
DeKalb	DKC66-21 (YGCB)	7.5 ± 0.3	52.5	7.6	42.7	64.8	33.9	24.0	71.8	0.745	3636	27236
Dyna Gro	57N96	7.4 ± 0.3	58.0	7.2	43.9	65.6	32.5	25.3	73.8	0.768	3788	28185
Pioneer	31R87 (RR2)	7.4 ± 0.3	58.0	7.1	46.4	64.5	30.3	26.8	72.3	0.751	3668	27108
Vigoro	V59YR52 (RR/YGCB)	7.3 ± 0.3	59.8	6.8	49.5	60.4	27.9	29.3	69.5	0.720	3434	25202
FFR	843 RR2/Bt	7.3 ± 0.3	60.6	7.7	46.1	65.3	29.9	26.1	73.5	0.764	3759	27482
TN Exp	TN 0501	7.3 ± 0.3	62.6	7.5	48.4	63.5	27.5	27.4	72.7	0.755	3685	26718
Dyna Gro	58P59 (RR/YG)	7.0 ± 0.3	59.7	7.3	42.6	66.0	33.6	24.5	74.8	0.778	3860	26825
Pioneer	33D63	6.9 ± 0.3	57.7	8.4	41.6	65.0	34.1	23.1	73.8	0.767	3779	26077
TN Exp	TN 0503	6.8 ± 0.3	65.2	7.9	46.9	65.0	28.1	26.9	74.1	0.771	3802	25662
Mycogen	TMF 2N802 (RR)	6.8 ± 0.3	58.5	7.5	47.3	66.2	28.2	27.4	72.8	0.756	3715	25076
FFR	693 RR2	6.7 ± 0.3	57.5	7.3	46.9	62.8	29.7	26.8	71.4	0.741	3590	24056
Vigoro	V58YR2 (RR/YGCB)	6.7 ± 0.3	56.4	7.1	44.2	64.3	32.8	25.5	72.4	0.751	3670	24519
TN Exp	TN 0504	6.7 ± 0.3	62.3	7.3	49.9	62.0	26.3	29.1	71.1	0.738	3563	23733
Mycogen	F2F797	6.6 ± 0.3	61.6	8.0	45.6	73.8	29.8	25.3	77.7	0.811	4130	27381
TN Exp	TN 0502	6.2 ± 0.3	60.0	7.0	49.0	64.2	27.6	28.1	72.0	0.748	3646	22603

Codes:

† yields reported are dry weight basis unless otherwise indicated, feed analysis reported on an "dry weight" basis

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

RR, RR2 = contains a gene for tolerance to glyphosate

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

NDF = Neutral Detergent Fiber

ADF = Acid Detergent Fiber

TDN = Total Digestible Nutrients

NEL = Net Energy for Lactation

**Table 5. Mean yields † and feed quality characteristics of 26 corn hybrids evaluated for silage at four locations in Tennessee during 2005, sorted by brand.**

Brand	Hybrid	Dry Weight	Moisture at Harvest (n=4)	Crude Protein (n=4)	NDF (n=4)	NDF 48h IV Digest (n=4)	Starch (n=4)	ADF (n=4)	TDN (n=4)	NEL (n=4)	Milk/ton (n=4)	Milk/acre (n=4)
		Avg. Yield ± Std Err. (n=4)										
		tons/a	%	% dm	% dm	% of NDF	% dm	% dm	% dm	Mcals/lb	lbs/ton	lbs/acre
DeKalb	DKC69-71 (RR2/YGCB)	8.5 ± 0.3	59.2	7.1	49.9	62.1	27.1	28.6	70.2	0.727	3495	29566
DeKalb	DKC66-21 (YGCB)	7.5 ± 0.3	52.5	7.6	42.7	64.8	33.9	24.0	71.8	0.745	3636	27236
Dyna Gro	58K40 (RR)	8.6 ± 0.3	58.2	7.3	47.8	63.7	29.0	27.6	71.4	0.740	3595	30915
Dyna Gro	58K22 (RR)	7.7 ± 0.3	59.1	7.1	47.9	65.0	29.0	27.5	72.4	0.752	3681	28342
Dyna Gro	57N96	7.4 ± 0.3	58.0	7.2	43.9	65.6	32.5	25.3	73.8	0.768	3788	28185
Dyna Gro	58P59 (RR/YG)	7.0 ± 0.3	59.7	7.3	42.6	66.0	33.6	24.5	74.8	0.778	3860	26825
FFR	755 HX (LL)	7.8 ± 0.3	58.7	6.9	47.1	62.7	29.5	27.1	71.9	0.746	3621	28281
FFR	886 RR2	7.8 ± 0.3	61.9	7.1	49.6	63.4	27.4	29.1	71.7	0.744	3614	28192
FFR	746 RR2/Bt	7.7 ± 0.3	60.4	7.1	44.7	62.2	32.8	25.4	72.6	0.754	3668	28099
FFR	900 BT	7.6 ± 0.3	57.4	7.1	44.9	64.1	32.1	25.5	72.8	0.757	3703	28035
FFR	843 RR2/Bt	7.3 ± 0.3	60.6	7.7	46.1	65.3	29.9	26.1	73.5	0.764	3759	27482
FFR	693 RR2	6.7 ± 0.3	57.5	7.3	46.9	62.8	29.7	26.8	71.4	0.741	3590	24056
Mycogen	TMF 2N802 (RR)	6.8 ± 0.3	58.5	7.5	47.3	66.2	28.2	27.4	72.8	0.756	3715	25076
Mycogen	F2F797	6.6 ± 0.3	61.6	8.0	45.6	73.8	29.8	25.3	77.7	0.811	4130	27381
NK Brand	N91-R9	7.9 ± 0.3	61.3	7.5	49.4	63.3	27.4	28.5	71.8	0.745	3622	28432
Pioneer	31G68 (YGCB)	7.8 ± 0.3	54.9	7.1	45.7	65.9	31.2	25.8	72.5	0.753	3697	28837
Pioneer	32D99	7.6 ± 0.3	56.4	7.2	44.7	64.8	32.5	25.4	72.4	0.752	3681	28125
Pioneer	33V15	7.6 ± 0.3	54.2	7.3	45.4	66.7	31.4	25.7	72.6	0.754	3705	28159
Pioneer	31R87 (RR2)	7.4 ± 0.3	58.0	7.1	46.4	64.5	30.3	26.8	72.3	0.751	3668	27108
Pioneer	33D63	6.9 ± 0.3	57.7	8.4	41.6	65.0	34.1	23.1	73.8	0.767	3779	26077
Vigoro	V59YR52 (RR/YGCB)	7.3 ± 0.3	59.8	6.8	49.5	60.4	27.9	29.3	69.5	0.720	3434	25202
Vigoro	V58YR2 (RR/YGCB)	6.7 ± 0.3	56.4	7.1	44.2	64.3	32.8	25.5	72.4	0.751	3670	24519

† yields reported are dry weight basis unless otherwise indicated, feed analysis reported on an "dry weight" basis

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

RR, RR2 = contains a gene for tolerance to glyphosate

CL = contains a gene for tolerance to Imidazolinone class herbicides

LL = contains a gene for tolerance to glufosinate

NDF = Neutral Detergent Fiber

ADF = Acid Detergent Fiber

TDN = Total Digestible Nutrients

NEL = Net Energy for Lactation

**Table 6. Mean yields † of nine corn hybrids evaluated in four environments for two years (2004 - 2005) in Tennessee.**

Brand	Hybrid	Dry Weight	65% Moisture	----- Dry Weight -----			
		Avg. Yield ± Std Err. (n=8)	Avg. Yield ± Std Err. (n=8)	Knoxville	Greenville	Crossville	Springfield
		-----tons/a-----					
DeKalb	DKC69-71 (RR2/YGCB)	9.5 ± 0.3	27.2 ± 0.9	10.5	8.6	10.2	8.8
Pioneer	32D99	9.1 ± 0.3	26.1 ± 0.9	9.2	8.7	9.3	9.3
NK Brand	N91-R9	9.1 ± 0.3	26.0 ± 0.9	10.3	9.2	8.8	8.1
Dyna Gro	58K22 (RR)	9.0 ± 0.3	25.6 ± 0.8	9.9	9.2	9.1	7.7
Pioneer	33V15	8.9 ± 0.3	25.5 ± 0.9	10.5	8.5	8.8	7.8
FFR	900 BT	8.6 ± 0.3	24.6 ± 0.9	9.2	7.8	9.9	7.6
Dyna Gro	58P59 (RR/YG)	8.5 ± 0.3	24.1 ± 0.9	9.2	7.0	9.0	8.7
Vigoro	V58YR2 (RR/YGCB)	8.0 ± 0.3	22.8 ± 0.8	9.8	6.9	7.6	7.7
Mycogen	F2F797	7.3 ± 0.3	20.8 ± 0.9	7.8	6.9	8.2	6.3
<b>Avg. (tons/a)</b>		<b>8.7</b>	<b>24.7</b>	<b>9.6</b>	<b>8.1</b>	<b>9.0</b>	<b>8.0</b>
<b>L.S.D.<sub>.05</sub> (tons/a)</b>		<b>1.1</b>	<b>3.0</b>	<b>1.7</b>	<b>2.7</b>	<b>2.2</b>	<b>1.8</b>
<b>C.V. (%)</b>		<b>16.0</b>	<b>16.1</b>	<b>11.5</b>	<b>21.2</b>	<b>16.2</b>	<b>14.4</b>

† all silage yields are adjusted to dry weight basis unless otherwise indicated.

**Table 7. Mean yields † and agronomic characteristics of nine corn hybrids evaluated for silage in four environments for two years (2004-2005) in Tennessee.**

Brand	Variety	Dry Weight	Moisture	Crude Protein	ADF	TDN	Lodging	Plant Height	Ear Height
		Avg. Yield ± Std Err. (n=8)							
		tons/a	%	%	%	%	%	inches	inches
DeKalb	DKC69-71 (RR2/YGCB)	9.5 ± 0.3	60.7	7.4	29.3	72.6	4	114	50
Pioneer	32D99	9.1 ± 0.3	59.5	7.5	27.9	72.2	1	117	51
NK Brand	N91-R9	9.1 ± 0.3	63.9	7.9	29.7	72.7	0	128	54
Dyna Gro	58K22 (RR)	9.0 ± 0.3	60.7	7.6	27.7	74.0	1	115	51
Pioneer	33V15	8.9 ± 0.3	57.3	7.6	27.3	74.2	1	119	46
FFR	900 BT	8.6 ± 0.3	61.5	7.4	27.4	72.8	3	114	45
Dyna Gro	58P59 (RR/YG)	8.5 ± 0.3	62.0	7.9	26.1	74.6	0	111	44
Vigoro	V58YR2 (RR/YGCB)	8.0 ± 0.3	59.9	7.5	26.1	74.7	0	114	44
Mycogen	F2F797	7.3 ± 0.3	65.4	8.2	26.6	75.8	8	112	50

Codes:

† yields reported are dry weight basis, feed analysis reported on an "dry weight" basis

Bt = contains a *Bacillus thuringiensis* gene for insect resistance

RR = contains a gene for tolerance to glyphosate

CL = contains a gene for tolerance to Imidazolinone class herbicides

ADF = Acid Detergent Fiber

TDN = Total Digestible Nutrients

**Table 8. Mean yields † of two corn hybrids evaluated in two environments for three years (2003-2005) in Tennessee.**

Brand	Hybrid	Dry Weight	65% Moisture	----- Dry Weight -----	
		Avg. Yield ± Std Err. (n=6)	Avg. Yield ± Std Err. (n=6)	Knoxville	Greenville
-----tons/a-----					
Pioneer	32D99	8.9 ± 0.4	25.5 ± 1.1	9.23	8.6
FFR	900 BT	8.9 ± 0.3	25.4 ± 0.9	9.34	8.5
<b>Avg. (tons/a)</b>		<b>8.9</b>	<b>25.5</b>	<b>9.3</b>	<b>8.6</b>
<b>L.S.D.<sub>.05</sub> (tons/a)</b>		<b>1.4</b>	<b>4.0</b>	<b>1.6</b>	<b>2.3</b>
<b>C.V. (%)</b>		<b>15.2</b>	<b>15.2</b>	<b>11.4</b>	<b>18.9</b>

† all silage yields are adjusted to Dry Weight basis.

**Table 9. Mean yields † and agronomic characteristics of two corn hybrids evaluated for silage in two environments for three years (2003-2005) in Tennessee.**

Brand	Variety	Dry Weight	Moisture at Harvest (n=6)	Crude Protein (n=6)	ADF (n=6)	TDN (n=6)	Lodging (n=2)	Plant Height (n=5)	Ear Height (n=4)
		Avg. Yield ± Std Err. (n=6)							
		tons/a	%	%	%	%	%	inches	inches
Pioneer	32D99	8.9 ± 0.4	66.0	7.0	30.0	68.5	2	123	54
FFR	900 BT	8.9 ± 0.3	66.4	7.0	28.1	70.3	4	118	49

Codes:

† yields reported are dry weight basis, feed analysis reported on an "dry weight" basis

Bt = contains a *Bacillus thuringiensis* gene for insect resistance

RR = contains a gene for tolerance to glyphosate

CL = contains a gene for tolerance to Imidazolinone class herbicides

ADF = Acid Detergent Fiber

TDN = Total Digestible Nutrients

Table 10. Characteristics of corn silage hybrids evaluated in yield tests in Tennessee during 2004.†

Early-Season Corn Hybrid Entries and Traits for 2004				Herbicide	Released or	Comments from Companies	
Brand	Hybrid	Grain Color	Maturity	Tolerance	BT Gene		Experimental
DeKalb	DKC66-21 (YGCB)	Y	116	---	YGCB	R	---
DeKalb	DKC69-71 (RR2/YGCB)	Y	119	RR2	YGCB	R	---
Dyna Gro	57N96	Y	114	---	---	R	High tonnage, dryland option
Dyna Gro	58K22 (RR)	Y	118	RR	---	R	High tonnage, highly digestible
Dyna Gro	58K40 (RR)	Y	117	RR	---	R	Best stress tolerance
Dyna Gro	58P59 (RR/YG)	Y	116	RR	YG	R	High tonnage, highly digestible
FFR	693 RR2	Y	112	RR	---	R	---
FFR	746 RR2/Bt	Y	114	RR	Bt	R	---
FFR	755 HX (LL)	Y	115	LL	HX	R	---
FFR	843 RR2/Bt	Y	117	RR	Bt	R	---
FFR	886 RR2	Y	118	RR	---	R	---
FFR	900 BT	Y	119	---	YG	R	---
Mycogen	TMF 2N802 (RR)	Y	116	RR	---	R	---
Mycogen	F2F797	Y	115	---	---	R	For better soils, Brown Mid Rib, Silage Only
NK Brand	N91-R9	Y	124	---	---	R	High Tonnage
Pioneer	31G68 (YGCB)	Y	118	---	YGCB	R	---
Pioneer	31R87 (RR2)	Y	120	RR	---	R	---
Pioneer	32D99	Y	118	---	---	R	---
Pioneer	33D63	Y	114	---	---	R	---
Pioneer	33V15	Y	114	---	---	R	---
TN Exp	TN 0501	Y	Full	---	---	E	---
TN Exp	TN 0502	Y	Full	---	---	E	---
TN Exp	TN 0503	Y	Full	---	---	E	---
TN Exp	TN 0504	Y	Full	---	---	E	---
Vigoro	V58YR2 (RR/YGCB)	Y	117	RR	YGCB	R	High quality silage hybrid
Vigoro	V59YR52 (RR/YGCB)	Y	119	RR	YGCB	R	High tonnage and quality

Codes:

Bt, YG, YGCB = contains a *Bacillus thuringiensis* gene for insect resis; RR = contains a gene for tolerance to glyphosate

CL = contains a gene for tolerance to Imidazolinone class herbicides LL = contains a gene for tolerance to glufosinate

Poncho 250, Cruiser = seed treated with a systemic insecticide W = white grain

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