

# Mississippi Corn for Silage Hybrid Trials, 2005

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## PROCEDURES

The 2005 corn hybrid trials for silage were conducted at the Coastal Plain Branch Experiment Station at Newton. Two experiments were planted. One experiment was designed to evaluate silage yield and various components of forage quality, while the other experiment was designed to evaluate grain yield of each hybrid. In the silage yield experiment, plots consisted of two 25-foot-long rows that were spaced 30 inches apart. The grain yield experiment was identical in row spacing to the silage tests, but row length was 16.75 feet. Experimental design was a randomized complete block with four replications. Seeds of all entries were supplied by participating companies and packaged for planting at rates of 24,000 or 28,000 seeds per acre as specified by the respective seed company. A four-row planter equipped with 31 cell cone units was used for planting. Established

stands were not thinned. Nitrogen, phosphorus, potassium, and lime were applied according to soil test recommendations.

Weeds were controlled by cultivation and/or herbicides currently registered for use on corn with strict adherence to all label instructions. All hybrids were treated with Poncho 250 or Cruiser for insect control. Silage was harvested with a two-row silage harvester, and the biomass from the entire plot was blown into an automatic weigh wagon. Chopped samples were collected from each plot for dry matter and forage quality determinations. Samples were placed in a forced draft oven at 140 degrees Fahrenheit until dry. Estimates for forage quality measured in this trial were crude protein, acid detergent fiber, and estimated total digestible nutrients. The grain yield experiment was destroyed by Hurricane Katrina prior to harvest.

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## MAFES COASTAL PLAIN BRANCH, NEWTON

During a majority of the growing season, this was another good corn-producing year due to adequate moisture through the growing season. Good moisture conditions following planting allowed for good germination and early growth. May was quite dry until the last two days. The remainder of the

growing season experienced normal rainfall and temperatures. However, on August 29 Hurricane Katrina delivered a terrible blow to our area with 115 mph winds destroying the grain yield portion of this test.

<b>Soil type</b> .....	<b>Prentiss fine sandy loam</b>
<b>Soil pH</b> .....	<b>6.3</b>
<b>Soil fertility</b> .....	<b>P=H; K=H</b>
<b>Fertilizer added</b> .....	<b>13-13-13 @ 500 lb/A + N-Sol (32%) @ 140 lb/A</b>
<b>Herbicide application</b> .....	<b>Atrazine @ 2 qt/A + Lasso @ 2 qt/A</b>
<b>Planting date</b> .....	<b>April 18</b>
<b>Harvest date</b> .....	<b>July 26</b>

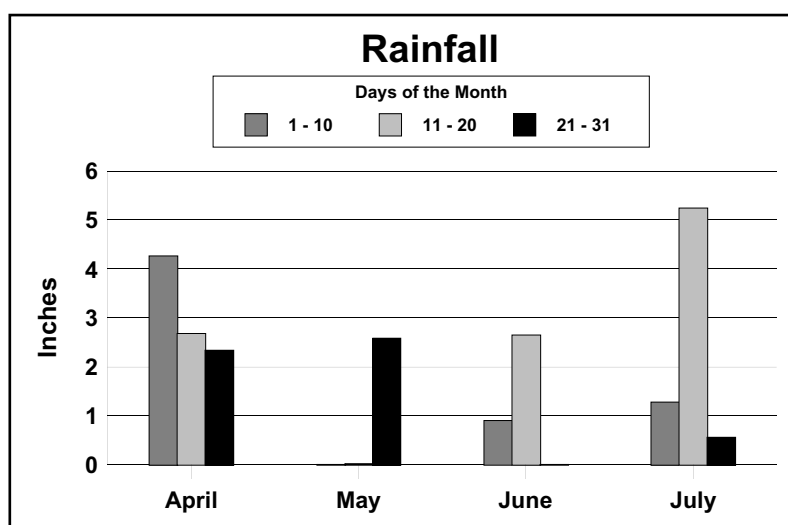
**Table 1. Silage yield, crude protein, acid detergent fiber content, and total digestible nutrients of 27 corn hybrids grown at Newton, Mississippi, 2005.**

Hybrid	Brand	Silage yield <sup>1</sup>	Crude protein	Acid detergent fiber	Total digestible nutrients
		<i>tons/A</i>	<i>pct</i>	<i>pct</i>	<i>pct</i>
DG58P59	Dyna-Gro	18.7	7.9	29.5	65.7
746RRBT	FFR	18.0	7.6	31.1	64.5
DKC69-72	DEKALB	18.0	6.8	36.2	60.7
2841RRB	Golden Acres	17.7	7.8	28.8	66.2
2995RR	Golden Acres	17.7	7.7	30.1	65.2
2011RR	Triumph	17.6	7.0	33.7	62.6
DKC69-71	DEKALB	17.6	7.0	34.7	61.8
1536CBRR	Triumph	17.6	8.5	28.8	66.3
TV26B82	Terral	17.4	8.3	30.8	64.7
DKC61-45	DEKALB	17.2	8.6	28.5	66.5
1866BT	Triumph	17.2	8.0	30.8	64.7
851RR/BT	Croplan Genetics	17.2	8.4	28.3	66.6
V62R66	Vigoro	17.1	7.3	32.3	63.6
TV25R31	Terral	17.1	8.0	32.8	63.2
X-6501BT	Golden Acres	17.0	7.1	32.8	63.2
8204RR	Garst	17.0	8.0	32.3	63.6
822RR/BT	Croplan Genetics	16.8	7.7	30.5	65.0
8213RR	Garst	16.5	8.1	31.2	64.5
TV27C48	Terral	16.4	8.8	32.9	63.1
33V15	Pioneer	16.1	8.5	31.1	64.5
31R87	Pioneer	16.0	7.1	31.8	64.0
V58YR2	Vigoro	15.9	8.7	29.6	65.7
33D63	Pioneer	15.8	9.0	29.4	65.8
900BT	FFR	15.8	8.1	33.1	63.0
886RR	FFR	15.8	8.1	32.4	63.6
818RR/BT	Croplan Genetics	15.3	8.4	31.3	64.4
8200YG1	Garst	14.7	8.1	30.7	64.8
Overall Mean		16.9	7.9	31.3	64.4
LSD (.10)		2.5	1.0	3.5	2.6
CV (%)		12.0	7.1	6.3	2.3
R <sup>2</sup> (%)		26.5	71.3	66.2	66.2

<sup>1</sup>At 35 percent dry matter.

## Rainfall Summary

	Inches
April.....	9.29
May.....	2.60
June.....	3.54
July.....	7.08
<b>Total .....</b>	<b>22.51</b>



**Table 2. Characteristics of hybrids in the Mississippi corn for silage hybrid trials, 2005.**

Company	Hybrid	Planting rate (X 1000)	Days to maturity	Grain texture <sup>1</sup>	MDIV resistance <sup>2</sup>	MCDV resistance <sup>2</sup>
Croplan Genetics P.O. Box 64281 St. Paul, MN 55164 662-305-5312	DS822RR/Bt	32	117	—	—	—
	818RR/Bt	38	117	M	S	S
	851RR/Bt	32	117	M	S	S
FFR Seed 969 Cloverleaf Drive Southaven, MS 38671 901-652-0903	746RRBT	28	115	M	MS	MS
	886RR	28	119	M-H	MS	MS
	900 BT	28	119	M-H	S	S
Garst Seed Company 2369 330th Street P.O. Box 500 Slater, IA 50244 318-396-7037	8200YG1	28	119	H	—	—
	8204RR	28	117	MH	—	—
	8213RR	28	120	H	—	—
Golden Acres Genetics P.O. Box 579 Buchanan Dam, TX 78609 512-793-5205	2841RRB	28	117	—	—	—
	2995RR	28	120	H	MS	MS
	X-6501Bt	28	120	H	MS	MS
Monsanto 800 N. Lindbergh Blvd. St. Louis, MO 63167 815-754-4809	DKC61-45	28	111	—	—	—
	DKC69-71	28	119	—	—	—
	DKC69-72	28	119	—	—	—
Pioneer Hi-Bred Int. Inc. 7501 Memorial Pkwy .SW Suite 205 Huntsville, AL 35802 256-650-4223	31R87	28	120	M	MS	MS
	33D63	28	114	—	—	—
	33V15	28	114	—	—	—
Royster-Clark, Inc. 717 Robinson Rd., SE Washington, C.H., OH 43160 740-869-2181	V58YR2	28	117	M	—	—
	V62R66	28	121	H	MR	MR
Terral Seed, Inc. P.O. Box 826 Lake Providence, LA 71254 318-559-2840	TV25R31	30	115	H	R	—
	TV26B82	30	115	M	MR	—
	TV27C48	30	115	M-H	MR	—
Triumph Seed, Inc. P.O. Box 1050 Ralls, TX 79357 800-530-4789	1536CbRR	28	115	M	—	—
	1866BT	28	118	H(R)	MR	MR
	2011RR	28	120	—	—	—
UAP Midsouth 57 Germantown Court, Ste 200 Cordova, TN 38018 601-856-3314	DG58P59	28	116	H	—	—

<sup>1</sup>M = Medium; H = Hard; MH = Medium-Hard.

<sup>2</sup>MDIV = Maize Dwarf Mosaic Virus; MCDV = Maize Chlorotic Dwarf Virus (corn Stunt); S = Susceptible; R = Resistant; MR = Moderately Resistant.

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