

Mississippi Corn for Silage Variety Trials, 2003

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PROCEDURES

The 2003 corn hybrids trials for silage were conducted at one location on experiment station land at Coastal Plain Branch Experiment Station in Newton. Two experiments were planted at each location. One experiment was designed to determine silage yield and various components of forage quality, while the other experiment was designed to determine grain yield of each hybrid. In the silage yield experiment, plots consisted of two 25-foot-long rows which 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. 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. Lorsban was donated by Dow Elanco and banded at planting 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 determined in this trial were crude protein, acid detergent fiber, and estimated total digestible nutrients.

An Almaco SPC-20 plot combine was used to harvest the grain yield experiments. The harvested grain was weighed, the moisture content was determined, and grain yields were converted to bushels per acre at 15 percent moisture.

Silage yield, grain yield, crude protein, acid detergent fiber content, and total digestible nutrients of fifteen corn hybrids grown at Newton, Mississippi, 2003.

Hybrid	Brand	Silage yield ¹	Grain yield	Crude Protein	Acid Detergent Fiber	Total Digestible Nutrients
		<i>tons/A</i>	<i>bu/A</i>	<i>pct</i>	<i>pct</i>	<i>pct</i>
900BT	FFR	25.5	129.1	6.9	20.9	72.2
DG58K22	Dyna-Gro	25.0	135.9	7.2	22.3	71.1
N91-R9	NK Brand	24.1	114.9	6.9	23.5	70.2
849CL	FFR	24.1	138.8	7.7	20.8	72.2
TV2130	Terral	22.2	154.5	7.4	22.7	70.8
1866BT	Triumph	22.1	145.6	7.2	24.2	69.7
DK697	DEKALB	21.8	138.6	7.5	23.3	70.4
2011RR	Triumph	21.4	157.6	7.8	22.8	70.7
DKC69-70	DEKALB	21.3	138.0	7.7	23.7	70.0
DG57P35	Dyna-Gro	21.2	156.9	7.8	21.0	72.1
TV2140nRR	Terral	20.7	161.7	6.8	22.2	71.2
DKC69-72	DEKALB	20.1	146.3	7.5	22.2	71.2
TRX 3605	Triumph	19.0	135.5	7.5	23.9	70.0
TV24R10	Terral	18.7	162.7	7.4	22.8	70.8
DG58K56	Dyna-Gro	18.6	128.3	7.7	23.7	70.0
Overall Mean		21.7	143.0	7.4	22.7	70.8
LSD (.10)		2.1	42.1	.5	2.4	1.8
CV (%)		8.3	24.8	6.1	8.7	2.1
R ² (%)		66.8	18.1	48.8	36.5	36.5

¹At 35 percent dry matter.

Characteristics of hybrids in the Mississippi Corn Silage Trials, 2003.

Company	Hybrid	Planting rate (X 1000)	Day to maturity	Grain texture ¹	MDIV resistance ²	MCDV resistance ²
FFR Seed 969 Cloverleaf Drive Southaven, MS 38671 731-394-4679	849CL	28	118	MS	MR	MR
	900 BT	28	119	MS	S	S
Monsanto 3100 Sycamore Rd DeKalb, IL 60115 815-758-9323	DK697	24	119	M	-	-
	DKC69-70	24	119	-	-	-
	DKC69-72	24	119	-	-	-
Syngenta Seed 100 Sangria Drive Hattiesburg, MS 39402 601-264-2878	N91-R9	28	124	-	-	-
Terral Seed, Inc. P. O. Box 826 Lake Providence, LA 71254 318-559-2840	TV2130	28	113	MH	MR	-
	TV2140nRR	28	114	H	-	-
	TV24R10	28	114	H	-	-
Triumph Seed, Inc. P. O. Box 1050 Ralls, TX 79357 800-530-4789	1866BT	28	118	H®)	MR	MR
	2011RR	28	-	-	-	-
	TRX 3605	28	-	-	-	-
UAP Delta 57 Germantown Court Suite 200 Cordova, TN 38018 901-752-4223	DG58K22	32	118	H	-	-
	DG57P35	32	114	H	S	S
	DG58K56	32	119	H	-	-

¹M = Medium; H = Hard; MH = Medium-Hard.

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