Kentucky Silage Corn Hybrid Performance Report: 2004

Site: Lincoln County

Brand and Hybrid	Stand	Yield Wet Wt.	Yield Dry Wt.	Moist.	CP	TDN	NE Lact	Value	Value
	plants/acre	% of high	% of high	%	%	%		$/ton	$/acre
Pioneer 33J57	30,056	100*	87	63.87	9.50	71.66	0.76	37.29	1353.63
Southern States 849 CL	28,314	100*	87	63.71	8.80	71.33	0.75	36.64	1330.03
Caverndale Farms 1015RR	25,265	93*	100	55.28	9.14	75.01	0.82	54.59	1839.68
Southern States 859 CL	26,572	92*	70	68.32	8.30	69.91	0.73	34.73	1156.51
Garst 8213 RR	25,700	87*	62	70.35	9.00	69.64	0.72	32.72	1037.22
Garst 8200 YG1	25,265	87*	79	62.67	7.90	68.34	0.70	39.19	1242.32
Pioneer 32D99	25,265	85*	78	62.15	9.50	73.06	0.79	45.30	1404.30
Purple Ribbon PR622	22,216	80	74	61.39	8.41	72.39	0.77	44.18	1281.22
Asgrowm RX752RR/YG	27,443	79	72	61.94	8.59	71.48	0.76	43.34	1243.86
Wyffels W8543	24,394	78	64	65.77	8.14	67.83	0.69	35.74	1011.44
Syngenta N91-R9	18,295	75	41	77.36	8.40	64.93	0.63	22.20	606.06
Wyffels W8603	20,473	75	55	69.58	8.47	70.57	0.74	33.78	922.19
Purple Ribbon PR601 RRCB	23,522	74	63	64.69	7.65	68.18	0.69	36.46	984.42
Caverndale Farms 1020RR	22,216	74	59	66.95	9.90	72.17	0.77	39.01	1053.27
LSD (0.05)		17							
Average	24,643	84	71	65.3	8.69	70.46	0.74	38.23	1176.15

Site: Adair County

Brand and Hybrid	Stand	Yield Wet Wt.	Yield Dry Wt.	Moist.	CP	TDN	NE Lact	Value	Value
	plants/acre	% of high	% of high	%	%	%		$/ton	$/acre
Wyffels W8603	29,621	100*	100	63.87	5.80	70.61	0.74	37.68	930.70
Caverndale Farms 1015RR	25,555	88*	76	69.05	9.10	71.31	0.75	34.28	747.30
Pioneer 33J57	28,750	84*	79	65.76	7.90	69.77	0.72	36.72	760.10
Pioneer 32D99	29,330	79	74	66.28	7.40	69.21	0.71	35.37	689.72
Caverndale Farms 1020RR	24,394	79	65	70.21	8.70	68.16	0.69	31.57	612.46
Purple Ribbon PR622	29,330	78	72	66.60	7.66	69.71	0.72	35.66	684.67
Southern States 849 CL	24,684	75	77	63.00	7.29	70.92	0.74	40.02	740.37
Wyffels W8543	23,813	74	77	62.51	6.79	68.30	0.70	38.35	701.81
Purple Ribbon PR601 RRCB	29,621	74	83	59.31	7.90	72.95	0.78	46.53	851.50
Garst 8213 RR	28,169	74	65	68.11	6.65	67.92	0.69	32.14	584.95
Garst 8200 YG1	26,136	71	76	61.33	6.54	72.11	0.77	42.46	747.30
Southern States 859 CL	26,136	68	68	63.87	8.60	71.88	0.76	41.07	694.08
Syngenta N91-R9	28,169	66	60	67.51	8.38	67.98	0.69	34.16	560.22
Asgrow RX752RR/YG	22,942	60	70	57.57	8.01	70.47	0.74	46.63	685.46
LSD (0.05)		17							
Average	26,903	84	84	64.6	7.62	70.09	0.73	38.05	713.62

*A yield followed by an asterisk does not differ significantly from the highest yield. Numbers in bold are the highest ranking number for that column.

Explanation of terms:

- Stand = Final population of at harvest, reported as plants/acre.
- Yield Wet Wt = Yield of corn forage plus water in the forage immediately after chopped. Weights are expressed as a percentage of the top yielding weight. This allows for a percent comparison between hybrid performances.
- Yield Dry Wt = Yield of corn forage dry matter immediately after chopped. Weights are expressed as a percentage of the top yielding weight. This allows for a percent comparison between hybrid performances.
- Moist. = Amount of water in the wet weight yield of silage, expressed as a percentage of the total weight.
- TDN = Total Digestible Nutrients, An energy value. Energy value is the most important factor of silage for milk production and cattle gains
- NE Lact = Net Energy for Lactation, Main energy value in dairy ration balancing
- CP = Crude Protein, protein content.
- Value ($/acre) and Value ($/ton) is based on the University of Missouri "Feed Value" program which estimates feeding value based on expected animal nutritional performance. Feed costs were averaged from local mills. The cost of the cracked corn was $105.10/ton, and of the soybean meal 48% was $212.88/ton.
- LSD = Least Significant Difference, Statistically determines the differences between hybrids.

Objective:

To provide unbiased silage yields and quality performance information for seed corn hybrids commonly sold in Kentucky. Every effort has been made to conduct the test in an unbiased manner according to accepted agronomic practices. Yields are expressed as a percent of the highest yield in that column. The test is designed to compare hybrid performance rather than predict actual yields. By reporting yields as a percent of the highest yield, then the comparisons between hybrids is easier to determine. Actual moisture, crude protein, TDN, and feed values are reported.

Test Locations & Farm Cooperators:

Lincoln County Field History				Adair County Field History			
Cooperator		Tillage	conventional	Cooperators		Tillage	no-till
Eddie Reynolds		Fertilizer (lbs/acre)	N: 170	Bill and Freddy Rowe, Farm		Fertilizer (lbs/acre)	N: 305
			P: 80	Burton Bros. Dairy, planted			P: 133
			K: 120				K: 133
Planted	5/14/2004		manure	Planted	5/20/2004		
Harvested	9/3/2004			Harvested	9/10/2004		
Row Width	30 inches	Herbicides	Bicep Magnum	Row Width	30 inches	Herbicides	Roundup,
			Exceed				Degree, Atrazine
Soil pH	6.4	Previous crop	Corn	Soil pH		Previous crop	corn/wheat

Test Procedures:

Seed Corn companies submitted hybrids for testing. Fourteen hybrids were planted into a randomized complete block design with three replications. All plots were harvested, weighed, chopped and sampled by Extension and/or University of Kentucky personnel. Quality analysis was conducted by Burkmann Feeds in Danville, KY. Fresh weight yields were determined from three replications at each site and were statistically analyzed for difference. TDN, NE lact, CP and RFV values were based on composite samples.

Hybrids that scored high in all yield and quality columns have greater potential to perform well next growing season. Caverndale Farms 1015RR and Pioneer 33J57 were at or near the highest fresh weight yields at both locations. Southern States 849 CL and Wyffels W603 were the highest yielding fresh weights at one location each. The growing conditions were exceptional for the Lincoln County site, which explains the higher dollar values for the that site.

Research conducted by:

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Available online at: http://www.uky.edu/Ag/GrainCrops/varietytesting.htm