

Evaluation of 1996 Corn Hybrids in Massachusetts

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Corn hybrids submitted by contributing companies in 1996 were tested by the Department of Plant and Soil Sciences, University of Massachusetts. Hybrids were evaluated for yield of silage and earcorn, percentage ears, standability, and moisture content. The trials were planted in the Connecticut River Valley at the Massachusetts Agricultural Experiment Station Farm in South Deerfield, Massachusetts. The results are presented and have been incorporated into the long term results (3 or more years including one of the previous 3 years) of the testing program. Results of these trials are made available to farmers, extension agents, seed distributors, seed salesmen and others upon request. Tables should not be reproduced if any portion is omitted or if order of data is changed.

The trials were planted May 9, 1996. A cone type distributor mounted on a double disc opening corn planter was used in a conventionally prepared seedbed at each site. Each plot was planted at the rate of 29,000 seeds per acre in 30 inch rows. Plots were 25 feet long and 3 rows wide. Each hybrid was replicated four times. Weeds were controlled with a pre-emergence application of 1 quart atrazine (AAtrex 4L) plus 1 quart metolachlor (Dual 8E) per acre. Preplant fertilization was at the rate of 680 lbs 15-8-12 per acre.

The 1996 growing season was warmer than normal for the months of May, June, August and September. Growing degree days accumulated for May to October 8 were 2599 compared to the norm of 2506. Precipitation received in May was less than the norm. However, June rainfall was slightly (0.7 inches) more than the norm, July was very wet with 4.2 inches of precipitation over the norm, August was dry with 3.15 inches less than the norm, while September rainfall was 2.3 inches above the norm.

Corn plots were harvested when most entries had reached the full dent stage. Harvested dates are shown on each table of results. Ten feet of row from each plot was taken for yield estimation. Silage yields were adjusted to 70% moisture and earcorn yields to 25% moisture. Moisture content is reported as a percentage of corn harvested as silage.

Climate Data for 1996 in South Deerfield, MA

	Growing Degree Days		Rainfall (inches)	
	1996	Norm	1996	Norm
May	295	269	3.44	3.86
June	559	529	4.29	3.63
July	641	699	8.12	3.89
Aug.	691	638	0.96	4.11
Sept.	413*	371	5.93	3.62
Totals	2599*	2506	22.74	19.11

* To harvest date for medium-late maturity hybrids.

**AVERAGE CORN YIELD FROM
UNIVERSITY of MASSACHUSETTS SOUTH DEERFIELD TRIALS***

<u>Brand</u>	<u>Hybrid</u>	<u>No. of Years</u>	<u>Silage¹ T/ac</u>	<u>Earcorn² T/ac</u>
<u>AGWAY</u>	AG266	3	27.5	6.4
	AG295	3	25.4	6.0
	AG427	5	28.5	6.5
	AG578	3	28.8	6.8
	AG626	4	32.2	7.5
	AG792	3	30.6	6.4
	AG797	6	29.2	5.9
<u>CARGILL</u>	3777	3	28.3	6.4
	4327	5	27.9	6.2
	5677	3	32.5	7.5
	7897	4	30.3	6.3
<u>DEKALB</u>	DK646	4	32.0	7.1
<u>EASTLAND/TODD</u>	E340	4	27.1	6.1
	E495	4	31.7	6.9
	E599	4	29.1	6.4
	E7800A	3	30.2	6.4
<u>FUNK</u>	G4106	8	27.0	6.2
	G4214	3	26.3	6.2
	G4394	4	30.6	7.4
<u>HALSEY</u>	H296	3	24.5	5.6
	H1115A	4	29.3	6.9
<u>MUNCY CHIEF</u>	XA777	5	29.1	6.5
	XA7790	3	26.6	5.4
<u>NORTHRUP KING</u>	N3624	8	28.7	6.7
	N4242	3	25.1	6.3
	N5220	3	27.8	6.5

*Averages based on the last ten years

¹Silage @ 70% moisture ²Earcorn @ 25% moisture

EARLY-MEDIUM HYBRIDS - HARVESTED SEPTEMBER 20, 1996

BRAND	HYBRID	SILAGE ¹ T/A	SILAGE MOISTURE %	EARCORN ² T/A	EARCORN MOISTURE %	PERCENT EARS
DEKALB	DK446	27.9	62	6.2	40	55
CARGILL	3777	26.4	64	6.0	38	57
DEKALB	DK443	26.1	63	6.3	39	61
FUNK	G4286	25.8	62	6.0	37	59
AGWAY	AG388	25.4	64	5.9	41	58
CARGILL	3309FQ	24.7	65	5.6	42	56
AGWAY	AG366	23.3	65	5.5	40	58
HALSEY	H296	22.8	65	5.1	41	56
AGWAY	AG266	22.2	63	5.2	39	59
FUNK	G4214	22.1	63	5.2	40	58
MEAN		24.7	63.6	5.7	39.8	57.7
LSD 5%		3.2	1.8	1.0	1.4	5.5

MEDIUM HYBRIDS - HARVESTED SEPTEMBER 24, 1996

BRAND	HYBRID	SILAGE ¹ T/A	SILAGE MOISTURE %	EARCORN ² T/A	EARCORN MOISTURE %	PERCENT EARS
AGWAY	AG657	32.0	69	7.5	46	58
AGWAY	AG626	31.9	68	7.4	45	58
FUNK	G4346	31.2	66	7.2	40	58
CARGILL	6208FQ	30.8	71	7.1	45	57
EASTLAND	E540	29.8	69	6.9	42	58
CARGILL	5677	28.5	70	6.2	55	53
AGWAY	AG566	28.3	68	6.4	45	57
AGWAY	AG494	26.2	68	5.9	43	56
DEKALB	DK527	24.6	65	6.2	41	63
DEKALB	DK546	24.6	65	5.9	40	60
MEAN		28.9	68.0	6.7	43.9	57.7
LSD 5%		7.3	5.6	2.6	13.3	12.0

MEDIUM-LATE HYBRIDS - HARVESTED OCTOBER 8, 1996

BRAND	HYBRID	SILAGE ¹ T/A	SILAGE MOISTURE %	EARCORN ² T/A	EARCORN MOISTURE %	PERCENT EARS
CARGILL	7897	29.9	63	6.5	42	54
FUNK	G4394	29.5	61	7.0	40	59
HALSEY	H3110	29.4	57	6.9	39	59
CARGILL	7770	28.6	63	6.2	42	54
DEKALB	DK646	27.7	65	6.2	46	56
HALSEY	H3120	27.4	66	5.5	47	48
AGRICULVER	AC2606	27.0	59	6.6	43	61
DEKALB	DK591	26.9	58	6.5	39	60
AGWAY	AG792	26.8	67	5.6	46	52
CARGILL	7301FQ	26.8	66	5.8	45	54
DEKALB	DK626	26.4	64	6.2	43	59
AGWAY	AG797	25.3	66	5.1	45	50
EASTLAND	E590	25.3	59	5.9	39	58
EASTLAND	E7800A	22.6	68	4.7	46	52
MEAN		27.1	63.0	6.1	43.0	55.4
LSD 5%		4.8	2.4	1.4	2.3	5.9

¹ Silage @ 70% moisture ² Earcorn @ 25% moisture