

Massachusetts Hybrid Corn Evaluation - 1984

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Corn hybrids in 1984 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. All hybrids submitted by contributing companies were tested in the Connecticut River Valley at the Agricultural Experiment Station Farm in South Deerfield, Massachusetts and at the State School Farm in Belchertown, Massachusetts. These results are presented, and the South Deerfield results have been incorporated into the long term results (3 or more years including one of the previous 3 years) of the testing program in this environment. 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.

Weather during the 1984 growing season was cool and very wet during May with about normal conditions in July, but there was below normal rain during June, August and September. Growing degree days in South Deerfield were about average for May 1 through September 30, and rainfall was about 2 inches above normal for the same period.

The trials were planted May 2, 1984, in South Deerfield in the Connecticut River Valley and May 25, 1984, in Belchertown. Seeds were planted using a cone type distributor mounted on a double disc opening corn planter in a conventionally prepared seedbed at each site. Each plot was planted at the rate of 27,000 seeds per acre in 30 inch rows. Plots were 25 feet long and 3 rows wide at South Deerfield and 2 rows wide in Belchertown. Each hybrid was replicated three times at each site, although one rep in Belchertown was lost due to early season flooding. Soil tests were used as guides to fertilization. Plow down fertilizer was 225 lb N, 120 lb P2O5 and 180 lb K2O per acre at South Deerfield plus 100 lb nitrogen sidedressed in mid-June at South Deerfield. In Belchertown, the plow down fertilizer plus 50 lb nitrogen topdressed in June was applied. Weeds were controlled with a pre-emergence application of 2 lb cyanazine (Bladex 80 WP) plus 2 quarts alachlor (Lasso) per acre in South Deerfield and with 1 1/2 quarts alachlor (Lasso) and 1 quart atrazine 4L per acre in Belchertown.

Corn silage plots were harvested when most entries were at the full dent stage. Harvested dates are shown on each table of results. All hybrids at Belchertown were harvested the same day. 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. Lodged plants were any plants broken below the ear or leaning across the neighboring row. Yields for 1984 at South Deerfield were above average. This can be partly attributed to a combination of a highly fertile soil, more than adequate nitrogen and moisture and lots of sunshine during the time of grain development and growth.

EARLY CORN HYBRIDS SOUTH DEERFIELD HARVESTED SEPT. 13

HYBRID	SILAGE		EARCORN T/AC	PERCENT EARS	NON-LODGED PLANTS	MOISTURE CONTENT %
	T/AC	T/AC				
PRIDE 2214	32.3	8.3	64.	100.	64.	
AGWAY 310X	32.0	6.9	54.	100.	67.	
HYTEST HT252	31.9	6.9	55.	98.	64.	
EASTLAND 210	31.0	6.4	52.	100.	61.	
AGWAY 265X	30.4	6.7	55.	100.	67.	
FUNK G4032	30.0	6.3	53.	100.	62.	
HYTEST HT244	29.8	6.9	57.	100.	67.	
NORTHRUP-KING PX11	28.6	6.9	60.	100.	63.	
AGWAY 283S	28.2	6.5	57.	100.	65.	
NORTHRUP-KING PX9151	27.8	6.5	57.	100.	66.	
NORTHRUP-KING PX9242	27.3	6.5	59.	100.	67.	
PRIDE 2244	26.5	5.5	53.	100.	65.	
FUNK 1011X	26.1	5.7	54.	100.	64.	
ASGROW RX292	24.2	5.8	61.	100.	63.	
NORTHRUP-KING PX9902	23.3	4.7	50.	100.	67.	
MEAN	28.6	6.4	56.	100.	65.	
LSD 5%	5.6	1.2	5.5	1.5	3.7	

EARLY-MEDIUM CORN HYBRIDS SOUTH DEERFIELD HARVESTED SEPT. 19

HYBRID	SILAGE		EARCORN T/AC	PERCENT EARS	NON-LODGED PLANTS	MOISTURE CONTENT %
	T/AC	T/AC				
AGWAY 473S	34.4	7.7	56.	100.	66.	
MUNCY CHIEF SX560	33.6	7.4	55.	100.	69.	
PRIDE 4422	33.3	7.9	59.	100.	66.	
PRIDE X1123	33.0	7.1	53.	100.	71.	
HYTEST HT492	32.8	7.0	53.	100.	67.	
FUNK G4224	32.5	7.5	58.	100.	62.	
FUNK G4217	31.7	6.9	55.	100.	67.	
AGWAY 380X	31.7	7.3	58.	100.	67.	
NORTHRUP-KING PX9353	31.7	7.6	60.	100.	66.	
NORTHRUP-KING PX37	31.6	6.6	52.	100.	66.	
AGWAY 415X	30.8	7.6	61.	100.	64.	
HYTEST HT261	30.7	6.8	55.	100.	62.	
DEKALB-PFIZER DK484	30.2	7.2	59.	100.	66.	
PRIDE 5523	29.4	6.6	56.	100.	67.	
NORTHRUP-KING PX39	29.3	6.3	54.	100.	69.	
DEKALB-PFIZER DK447	29.2	6.9	59.	100.	66.	
EASTLAND 240	28.5	6.5	57.	100.	66.	
ASGROW RX480	28.1	6.9	61.	100.	66.	
EASTLAND 238	27.4	5.4	49.	100.	64.	
PIONEER 3901	26.6	6.7	63.	100.	61.	
PIONEER 3930	25.9	6.2	60.	100.	58.	
FUNK G4256	25.8	5.5	53.	100.	65.	
PIONEER 3906	22.0	5.3	60.	100.	64.	
MEAN	30.0	6.8	57.	100.	65.	
LSD 5%	5.2	1.3	4.2	-	3.4	

MEDIUM-LATE CORN HYBRIDS SOUTH DEERFIELD HARVESTED SEPT. 26

HYBRID	SILAGE T/AC	EARCORN T/AC	PERCENT EARS	NON-LODGED PLANTS	MOISTURE CONTENT %
NORTHRUP-KING PX79	38.9	8.1	53.	98.	68.
AGWAY 650X	38.7	8.8	56.	100.	65.
NORTHRUP-KING PX74	37.3	8.7	59.	100.	67.
AGWAY 719S	37.0	8.0	53.	100.	63.
ASGROW RX777	37.0	8.2	56.	100.	66.
AGWAY 600X	36.4	8.2	55.	100.	64.
HYTEST HT650A	35.9	7.4	53.	100.	70.
MUNCY CHIEF SX777	35.7	7.9	54.	100.	67.
PRIDE 6692	35.6	7.9	56.	100.	67.
MUNCY CHIEF SX662	35.5	7.1	50.	100.	67.
PRIDE X115	34.9	8.0	60.	98.	68.
MUNCY CHIEF SX788	34.5	8.3	60.	96.	65.
DEKALB-PFIZER DK587	34.3	7.6	55.	100.	67.
DEKALB-PFIZER T1100	34.3	7.1	53.	95.	68.
PIONEER 3593	34.2	8.2	60.	100.	61.
DEKALB-PFIZER DK505	34.0	7.6	56.	100.	65.
PIONEER 3747	33.8	8.0	59.	100.	59.
FUNK G4342	32.7	8.0	61.	100.	57.
FUNK EXP 3025A	32.5	7.4	57.	97.	59.
PIONEER 3744	32.2	8.4	65.	100.	58.
FUND EXP 3022P	31.0	7.1	57.	100.	62.
PIONEER 3737	30.7	7.2	58.	100.	53.
ASGROW RX511	30.5	8.5	69.	94.	58.
MUNCY CHIEF SX660	30.2	6.9	57.	100.	62.
MEAN	34.5	7.9	57.	99.	64.
LSD 5%	5.3	1.5	7.4	5.7	3.8

EARLY CORN HYBRIDS BELCHERTOWN HARVESTED SEPT. 12

HYBRID	SILAGE T/AC	EARCORN T/AC	PERCENT EARS	NON-LODGED PLANTS	MOISTURE CONTENT %
HYTEST HT244	22.7	4.7	52.	100.	68.
EASTLAND 210	22.1	4.6	49.	100.	61.
USS 0201	19.4	2.9	35.	95.	73.
NORTHRUP-KING PX9242	19.3	4.2	51.	100.	67.
PRIDE 2244	19.1	3.7	46.	100.	59.
HYTEST HT252	18.9	3.2	43.	100.	71.
FUNK 1011X	18.2	3.9	58.	100.	63.
NORTHRUP-KING PX9902	18.0	3.9	57.	100.	66.
AGWAY 310X	18.0	2.7	37.	100.	70.
USS 9520	17.4	3.5	51.	100.	71.
NORTHRUP-KING PX11	16.5	3.9	53.	100.	63.
ASGROW RX292	16.3	3.5	52.	100.	62.
AGWAY 265X	14.7	2.5	42.	100.	68.
FUNK G4032	14.5	2.5	45.	100.	64.
AGWAY 283S	13.1	2.4	38.	100.	69.
NORTHRUP-KING PX9151	13.0	2.6	39.	100.	69.
PRIDE 2214	13.0	3.0	55.	100.	68.
MEAN	17.3	3.4	47.	100.	67.
LSD 5%	10.3	2.7	18.9	3.3	49

EARLY-MEDIUM CORN HYBRIDS BELCHERTOWN HARVESTED SEPT. 12					
HYBRID	SILAGE	EARCORN	PERCENT	NON-LODGED	MOISTURE
	T/AC	T/AC	EARS	PLANTS	CONTENT %
USS 1009	23.5	4.3	45.	100.	74.
FUNK G4224	23.3	4.5	49.	100.	70.
AGWAY 380X	21.6	4.4	51.	100.	71.
HYTEST HT492	20.8	3.5	41.	100.	72.
EASTLAND 240	20.5	4.1	51.	100.	72.
ASGROW RX480	20.5	4.0	48.	100.	71.
EASTLAND 238	20.4	4.0	49.	100.	57.
MUNCY CHIEF SX560	20.4	2.9	36.	100.	74.
PIONEER 3930	20.0	4.1	52.	100.	70.
NORTHRUP-KING PX9353	19.3	4.0	51.	100.	70.
DEKALB-PFIZER DK484	19.2	3.6	48.	100.	71.
FUNK G4256	19.1	3.5	46.	100.	59.
PRIDE 4422	18.7	3.5	47.	100.	72.
PRIDE X1123	18.6	2.7	35.	100.	73.
HYTEST HT261	18.5	3.6	49.	100.	70.
NORTHRUP-KING PX37	18.5	2.9	38.	100.	73.
PIONEER 3901	18.4	3.9	53.	100.	69.
AGWAY 415X	18.3	3.9	52.	100.	57.
FUNK G4217	18.1	2.7	35.	100.	59.
PRIDE 5523	18.1	3.0	41.	100.	69.
DEKALB-PFIZER DK447	17.9	3.7	53.	100.	72.
AGWAY 473S	16.8	2.5	37.	100.	73.
PIONEER 3906	16.5	3.5	53.	100.	71.
NORTHRUP-KING PX39	12.3	.3	24.	100.	76.
MEAN	19.1	3.5	45.	100.	71.
LSD 5%	5.6	1.2	7.5	-	3.7

MEDIUM-LATE CORN HYBRIDS BELCHERTOWN HARVESTED SEPT. 13					
HYBRID	SILAGE	EARCORN	PERCENT	NON-LODGED	MOISTURE
	T/AC	T/AC	EARS	PLANTS	CONTENT %
HYTEST HT650A	25.0	3.7	34.	100.	75.
MUNCY CHIEF SX662	24.5	4.1	41.	100.	74.
NORTHRUP-KING PX79	24.2	3.4	33.	100.	75.
MUNCY CHIEF SX660	23.5	4.0	40.	100.	74.
FUNK EXP. 3022P	23.2	4.6	51.	100.	71.
AGWAY 719S	22.9	3.6	40.	100.	75.
FUNK EXP. 3025A	22.8	4.2	43.	100.	72.
PRIDE 6692	21.8	3.3	37.	100.	74.
AGWAY 650X	21.7	3.3	37.	100.	72.
DEKALB-PFIZER T1100	21.3	3.2	40.	100.	75.
PIONEER 3593	20.9	4.1	48.	100.	71.
PIONEER 3737	20.9	4.5	49.	100.	71.
FUNK G4342	20.8	3.8	46.	100.	71.
MUNCY CHIEF SX788	20.5	3.1	40.	100.	76.
NORTHRUP-KING PX74	19.7	2.4	31.	100.	78.
AGWAY 600X	19.6	3.1	40.	100.	72.
PIONEER 3747	19.6	3.8	47.	100.	72.
DEKALB-PFIZER DK505	18.9	3.2	42.	100.	73.
ASGROW RX777	18.7	2.6	33.	100.	72.
ASGROW RX511	17.9	2.7	38.	100.	76.
DEKALB-PFIZER DK587	16.9	2.7	41.	100.	74.
PIONEER 3744	15.5	2.7	48.	100.	70.
MUNCY CHIEF SX777	14.8	1.7	33.	100.	75.
PRIDE X115	12.2	1.1	21.	100.	77.
MEAN	20.3	3.3	40.	100.	74.
LSD 5%	6.0	1.4	9.6	-	3.3

Average Corn Yield from Univ. of Mass. (South Deerfield) Trials

Hybrid	No. of Years	Silage ¹ t/ac	Earcorn ² t/ac
<u>Agway</u>			
650X	4	32.9	7.0
719S	4	29.9	5.9
600X	4	28.4	6.2
310X	3	28.2	5.8
380X	3	27.9	6.2
415X	3	26.9	6.2
584S	4	26.4	5.6
283S	3	25.9	5.4
265X	3	25.0	5.1
<u>Asgrow</u>			
RX511	5	30.6	7.2
RX255	3	23.4	5.2
RX58	4	22.4	5.4
<u>Dekalb-Pfizer</u>			
XL25A	4	25.2	5.5
<u>Eastland</u>			
210	3	26.3	5.6
238	3	25.0	5.1
<u>Funk</u>			
G-4321A	5	27.8	6.0
G-4342	3	30.9	7.1
G-4315	4	26.5	6.0
G-4195	9	25.6	5.7
G-4224	6	26.6	5.7
G-4256	4	25.7	5.4
<u>Muncy Chief</u>			
SX660	4	28.2	6.1
SX777	9	28.6	6.0
SX560	5	28.1	5.8
SX662	10	28.1	6.2

¹ Silage - 70% moisture

² Earcorn - 25% moisture

Average Corn Yield from Univ. of Mass. (South Deerfield) Trials

Hybrid	No. of Years	Silage ¹ t/ac	Earcorn ² t/ac
<u>Northrup King</u>			
PX74	3	32.8	7.0
PX37	4	29.8	6.3
PX39	5	26.8	5.5
PX485	4	24.8	5.6
PX32	8	26.6	5.3
PX11	6	25.1	5.7
<u>Pioneer</u>			
3747	4	29.8	6.7
3744	3	29.3	7.1
3593	3	29.0	6.2
3572	3	27.6	5.6
3901	6	27.2	6.3
3930	3	25.8	5.7
3906	5	25.3	5.8
<u>Pride</u>			
R319	3	28.3	6.3
4488	3	26.9	5.8
<u>Stewart</u>			
325	4	26.3	5.5
290	4	24.0	5.0
2660"	5	23.0	5.0
244	5	21.3	4.6
255	5	21.2	4.8

¹ Silage - 70% moisture² Earcorn - 25% moisture