

MASSACHUSETTS 1982 HYBRID CORN EVALUATION

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Corn hybrids in 1982 were tested by the Department of Plant and Soil Sciences and Regional Cooperative Extension Services. 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. These results are presented and have been incorporated into the long term results 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 conditions during the 1982 growing season were 21.7 inches of rainfall and 2433 growing degree days from May 1 through September 30. Although May was warmer than normal and rainfall was below normal for May, August and September, overall the growing season was cooler than average with higher rainfall. Much of this was due to adverse growing conditions in June when temperatures averaged 3 degrees below normal and with nearly 5 inches more rainfall than normal.

The trials were planted May 3, 1982 using a cone type distributor mounted on a double disc opening corn planter in a conventionally prepared seed bed. Each plot was planted at the rate of 27,000 seeds per acre in 36 inch rows. Plots were 3 rows wide and 25 feet long. Each hybrid was replicated four times. Soil tests were used as a guide to fertilization. Plow down fertilizer was 215 lb N, 115 lb P₂O₅ and 140 lb K₂O per acre. Weeds were controlled with a pre-emergence application of 2 lb cyanazine (Bladex 80WP) plus 2 quarts alachlor (Lasso) per acre.

Corn silage plots were harvested when most entries were at the full dent stage. Early maturity hybrids were harvested September 3, early-medium hybrids September 7 and medium-late hybrids September 14. Ten feet of the row from the center of each plot was taken for yield estimation. Silage yields were adjusted to 70% moisture and earcorn yields at 25% moisture. Moisture content is reported as a percentage for corn harvested as silage. The number of standing and lodged plants were counted. Any plant broken below the ear or leaning across the neighboring row was considered lodged.

Climate Data for 1982

	<u>Growing Degree Days</u>			<u>Rainfall (inches)</u>		
	1982	()	Norm	1982	()	Norm
May	323*	(329)	257	2.93*	(2.93)	3.52
June	431		525	8.89		3.93
July	704		691	4.23		3.58
August	575		632	2.66		3.91
September	<u>236*</u>	<u>(394)</u>	<u>366</u>	<u>1.11*</u>	<u>(2.99)</u>	<u>3.55</u>
	2269	2433	2471	19.82	21.70	18.49

* Planting to harvest date for medium-late maturity hybrids

Average Corn Yield from Univ. of Mass. (Amherst) Trials

Hybrid	No. of Years	Silage ¹ t/ac	Earcorn ² t/ac
<u>Agway</u>			
425X	3	30.0	6.2
370X	3	28.2	5.8
724	8	26.6	5.8
615S	3	26.5	5.3
584S	4	26.4	5.6
590X	12	25.0	5.9
595S	11	24.1	5.8
393S	7	21.6	5.1
<u>Asgrow</u>			
RX511	3	29.8	6.7
RX255	3	23.3	5.2
RX58	4	22.4	5.4
<u>Cornell</u>			
281	3	25.8	5.7
<u>Dekalb</u>			
XL72aa	3	31.7	6.2
XL66	4	26.6	6.3
XL25A	4	25.2	5.5
XL367	4	24.1	5.7
XL12	10	21.5	5.5
XL15	3	20.0	5.0
<u>Funk</u>			
G-4321A	4	28.2	6.3
G-4604	5	26.8	6.1
G-4444	11	25.9	6.3
G-4315	4	26.5	6.0
G-4195	9	25.6	5.7
G-4343	6	24.5	6.1
G-4252	3	24.2	5.3
G-4224	4	25.4	5.6
G-4040	3	23.2	5.3
G-4065	3	22.2	5.2
G-4252	12	21.6	4.9
G-11A	4	19.3	4.3
G-5048	5	19.8	6.1
<u>Muncy Chief</u>			
SX777	7	27.6	6.1
SX560	3	27.3	5.6
SX662	8	27.2	6.3
SX220	4	15.1	3.7

¹Silage - 70% moisture²Earcorn - 25% moisture

Average Corn Yield from Univ. of Mass. (Amherst) Trials

Hybrid	No. of Years	Silage ¹ t/ac	Earcorn ² t/ac
<u>Northrup King</u>			
PX37	3	29.4	6.3
PX39	3	25.9	5.5
PX525	4	25.1	6.2
PX32	7	25.0	5.6
PX485	4	24.8	5.6
PX11	4	24.4	5.6
PX419	3	24.0	5.7
PX7	3	23.2	5.6
PX420	4	19.3	4.9
PX446	5	18.9	5.0
PX20	5	18.5	4.9
<u>Penn. State</u>			
Pa6203	4	24.6	6.0
<u>Pioneer</u>			
3572	3	27.6	5.6
3906	3	25.8	6.0
3780	6	25.6	6.5
3373	4	25.0	5.8
3950	3	23.2	5.7
3663	5	23.1	5.8
3956A	4	20.0	5.1
<u>Pride</u>			
R319	3	28.3	6.3
4488	3	26.9	5.8
R290	5	24.6	6.0
R200A	4	18.9	5.2
<u>Seneca</u>			
321	3	24.9	5.3
149	5	23.5	5.2
285	5	22.9	5.4
155	4	18.0	4.5
140	3	21.1	4.9
<u>Stewart</u>			
325	4	26.3	5.5
290	3	24.0	5.3
244	4	21.5	4.8
2660	4	22.9	5.1
255	4	21.6	5.1
<u>Wisconsin</u>			
335A	7	18.4	4.3

¹Silage - 70% moisture²Earcorn - 25% moisture

Early Maturity Corn Hybrids 1982

Hybrid	Silage ¹ t/ac	Earcorn ² t/ac	Percent Ears ³	Non-lodged Plants %	Moisture Content %
Cornell 279	28.8	5.4	49	97	66
Agway 310X	28.6	5.9	51	100	64
Eastland 210	27.4	6.1	55	100	62
Northrup-King PX11	25.4	5.7	55	100	60
Dekalb XL8	25.1	4.9	48	100	66
Agway 283S	24.9	5.2	52	99	61
Stewart 2660	24.8	5.6	56	100	61
Dekalb XL6	24.6	5.7	58	100	58
Stewart 280	23.6	5.3	56	100	61
Asgrow RX255	23.3	5.2	56	100	58
Stewart 255	23.0	5.1	55	95	58
Agway 265X	22.7	4.7	50	100	65
Stewart 244	17.7	3.5	51	98	59
MEAN	24.6	5.3	53	99	61
LSD 5%	5.03	1.11	5.65	4.9	1.46

Early Medium Maturity Corn Hybrids 1982

Hybrid	Silage ¹ t/ac	Earcorn ² t/ac	Percent Ears ³	Non-lodged Plants %	Moisture Content %
Funk G4224	29.2	6.3	55	100	63
Muncy-Chief SX560	27.2	5.3	49	100	69
Pioneer 3593	27.1	5.6	51	99	63
Agway 380X	26.6	5.8	54	100	65
Pioneer 3930	26.4	5.9	56	100	62
Northrup-King PX32	26.3	5.7	55	100	64
Pioneer 3901	26.0	5.9	57	100	63
Funk G4256	25.7	5.8	57	99	60
Muncy-Chief SX553	25.5	4.8	48	99	67
Stewart 325	25.2	5.6	55	97	63
Eastland 238	25.0	5.5	55	97	61
Dekalb XL25A	24.6	5.3	54	100	67
Pioneer 3906	24.4	5.3	54	100	62
Agway 415X	24.4	5.4	55	99	63
Funk 29306	24.4	5.2	54	97	60
Stewart 290	23.8	5.5	58	99	60
Northrup-King PX485	23.7	5.3	56	99	65
Funk G4195	23.1	5.0	55	99	59
Stewart 8077	22.3	5.0	56	100	55
Northrup-King PX9144	15.8	3.5	51	94	61
MEAN	24.8	5.4	54	99	63
LSD 5%	4.09	.95	6.3	3.9	1.6

¹Silage - 70% moisture²Earcorn - 25% moisture³Percent dry matter in ears

Medium-Late Maturity Corn Hybrids 1982

Hybrid	Silage ¹ t/ac	Earcorn ² t/ac	Percent Ears ³	Non-lodged Plants %	Moisture Content %
Agway 650X	32.5	7.1	55	100	64
Agway 791S	31.9	6.1	49	100	63
Muncy-Chief SX660	30.4	6.6	55	100	62
Northrup-King PX74	30.4	6.3	50	95	67
Asgrow RX511	29.8	6.7	57	100	61
Funk G4438	29.6	7.0	59	100	62
Dekalb XL71	29.3	6.1	52	99	71
Dekalb XL61	29.2	6.7	58	99	64
Funk G4315	28.7	7.0	60	100	57
Agway 584S	27.8	5.8	52	97	60
Funk G4342	27.7	6.7	61	99	56
Stewart 338	27.6	6.5	59	100	56
Pioneer 3747	27.2	6.4	57	98	57
Agway 600X	27.1	6.3	58	99	56
Pioneer 3572	26.7	5.7	53	100	61
Muncy-Chief SX662	26.6	5.6	51	100	64
Northrup-King PX9415	26.2	5.9	56	98	58
Northrup-King PX39	26.0	5.7	55	100	64
Northrup-King PX9572	25.5	5.7	55	100	67
Pioneer 3744	25.4	6.1	60	99	56
Funk 29060	25.4	5.6	56	100	60
Funk G4321A	25.0	5.6	56	98	56
Muncy-Chief SX777	25.0	5.2	51	100	65
Northrup-King PX9353	24.9	5.8	58	99	59
MEAN	27.7	6.2	55	99	61
LSD 5%	4.04	1.04	3.9	3.0	0.0

¹Silage - 70% moisture²Earcorn - 25% moisture³Percent dry matter in ears