

1980 MASSACHUSETTS HYBRID CORN EVALUATION

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Corn hybrids in 1980 were tested by the Department of Plant & 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 Sunderland, Massachusetts. These results are presented and have been incorporated into the long term results of the testing program in this environment. The North Brookfield test included a smaller selection of these hybrids in this Worcester County hill 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.

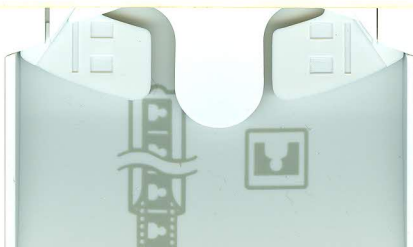
Weather conditions during the 1980 growing season are summarized for the Sunderland trials under the hybrid yield data. Rainfall except for June was below normal and came as scattered thunder showers. June was somewhat cooler than normal but above average heat units were available in other months.

The Sunderland yield trial was planted May 16, 1980, 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 three 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 170 lb N, 90 lb P₂O₅ and 140 lb K₂O per acre. Weeds were controlled with a pre-emergence application of 1.25 lb atrazine and 2 lb alachlor (Lasso) per acre. Weed growth was insignificant in all plots.

In the North Brookfield yield trial cultural practices were similar to those above and were the same as those used by the farmer Gerry Smith in the remaining portion of the field.

Corn silage plots were harvested when most entries were at the full dent stage. 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 to 25% moisture. An estimate of yield of grain in bushels per acre at 15.5% moisture can be made by multiplying earcorn yield by 25.4. 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.

In addition to the corn hybrids tested, one forage sorghum "Red Top Kandy" was evaluated. This, sown two weeks after the corn, had a silage yield (70% moisture) of 30 tons per acre with a harvested moisture content on September 19 of 76%.



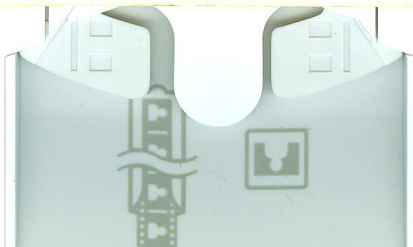
Average Corn Yield from Univ. of Mass. (Amherst) Trials

Hybrid	No. of Years	Silage ¹ t/ac	Earcorn ² t/ac
<u>Agway</u>			
724	8	26.6	5.8
725X	3	26.3	5.3
590X	12	25.0	5.9
595S	11	24.1	5.8
393S	7	21.6	5.1
<u>Asgrow</u>			
RX58	4	22.4	5.4
RX60	3	21.1	5.4
RX35	3	18.2	4.5
RX30	3	17.0	4.5
<u>Cornell</u>			
M-3	3	21.4	5.5
<u>Dekalb</u>			
XL66	4	26.6	6.3
XL342	3	24.7	6.1
XL43	3	24.6	6.3
XL367	4	24.2	5.7
XL22	3	23.7	6.4
XL16	3	23.5	5.4
XL22B	3	21.7	5.6
XL12	10	21.5	5.5
XL21	3	20.7	6.0
XL15	3	20.0	5.0
<u>Funk</u>			
G-4444	10	25.7	6.3
G-4195	7	25.3	5.6
G-4604	5	26.8	6.1
G-4343	6	24.5	6.1
G-10A	3	22.8	5.5
G-4252	11	21.3	4.9
G-11A	4	19.3	4.3
G-5048	4	18.9	6.1
G-4180	3	18.7	4.7
<u>Muncy Chief</u>			
SX777	5	28.4	6.2
SX662	6	28.1	6.4
SX440	3	21.1	5.4
SX220	3	15.1	3.7

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>			
PX525	4	25.1	6.2
PX32	5	24.6	5.6
PX420	4	19.3	4.9
PX446	5	18.9	5.0
PX20	5	18.5	4.9
PX448	3	15.7	4.1
<u>Penn. State</u>			
Pa6203	4	24.6	6.0
<u>Pioneer</u>			
3368	3	26.9	6.0
3780	6	25.6	6.5
3431	3	25.2	6.2
3373	4	25.0	5.8
3663	5	23.1	5.8
3658	3	23.0	5.7
3909	3	21.6	5.7
3784	3	20.6	5.7
3956A	4	20.0	5.1
<u>Pride</u>			
R450	3	25.4	6.5
R290	5	24.6	6.0
R501	3	22.1	5.9
R200A	4	18.9	5.2
<u>Seneca</u>			
149	4	23.1	5.2
285	5	22.9	5.4
324	3	22.8	4.6
300	3	22.5	4.4
PC35	3	21.8	5.1
155	4	18.0	4.5
<u>Todd</u>			
645	3	26.8	6.0
M30	3	23.1	5.8
<u>Wisconsin</u>			
335A	7	18.4	4.3

1. Silage - 70% moisture
2. Earcorn - 25% moisture



Early Maturity Hybrids 1980

Hybrid	Silage ¹ t/ac	Earcorn ² t/ac	Percent Ears ³	Non-lodged Plants %	Moisture Content %
Jacques JX50	25.4	5.9	58	99	68
Asgrow RX355	25.1	5.3	53	90	69
Dekalb XL13	25.0	5.9	59	100	69
Cornell 281	24.6	5.6	57	98	70
Seneca 149	23.9	5.8	60	96	64
Todd M15	23.8	5.9	62	89	63
Jacques JX99A	23.1	5.4	58	98	71
Funk G-4143	22.9	5.2	57	99	71
Northrup King PX11	22.1	5.5	63	96	63
Northrup King PX7	21.6	5.4	62	94	66
Funk G-5048	21.1	5.4	63	95	65
Funk G-4040	21.1	5.3	62	92	67
Stewart 38	20.9	4.8	57	96	67
Asgrow RX295	20.8	4.9	58	92	66
Northrup King PX419	20.8	5.3	64	99	65
Funk G-4065	20.7	5.2	63	95	58
Stewart 255	20.6	5.0	61	91	63
Seneca PC14	20.6	5.0	61	94	66
Stewart 244	20.3	4.9	60	95	62
Seneca 140	19.9	4.8	60	85	60
Pioneer 3950	19.6	4.9	63	95	67
Stewart 2660	19.2	4.4	58	97	66
LSD 5%	3.22	0.77	4.1	7.1	2.2

1. Silage - 70% moisture
2. Earcorn - 25% moisture
3. Percent of total dry matter in ears

Planting Date

May 16, 1980

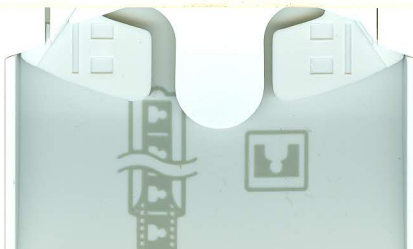
Harvest Date

September 15, 1980

Growing Degree DaysRainfall (inches)

	1980	Norm	1980	Norm
May	199*	(316)	0.38*	(2.09)
June	439	525	4.03	3.75
July	749	691	1.83	3.58
August	711	632	1.64	4.01
September	281	(438)	0.34	(1.96)
	2379	2653	8.22	11.55
		2471		18.47

* Planting to harvest date



Early Medium Maturity Hybrids 1980

Hybrid	Silage ¹ t/ac	Earcorn ² t/ac	Percent Ears ³	Non-lodged Plants %	Moisture Content %
Northrup King PX449	27.3	5.8	53	97	70
Northrup King PX21	27.0	6.3	58	99	68
Agway 425X	26.6	5.5	52	97	73
Agway 370X	26.4	5.6	53	98	72
Pride R319	26.4	6.2	58	98	71
Northrup King PX485	26.1	6.3	60	94	71
Cornell 410	25.4	5.4	53	95	73
Pioneer 3901	25.4	6.2	60	99	68
Funk G4252	25.0	5.4	55	95	69
Funk G4224	24.9	5.7	58	100	71
Pioneer 3906	24.6	5.8	59	99	69
Seneca 321	24.6	5.1	52	93	73
Muncy Chief SX560	23.8	5.4	57	91	71
Seneca T1850	23.6	5.2	55	92	71
Dekalb XL25A	23.2	4.8	51	99	74
Stewart 325	23.1	4.8	52	97	72
Northrup King PX32	23.0	4.9	53	94	71
Funk G4195	22.8	5.1	56	99	68
Funk G4141A	22.7	5.3	58	93	69
PAG SX111	22.3	5.3	60	92	64
Todd MX33	22.2	4.8	54	99	65
Pioneer 3958	21.9	5.2	59	97	65
Eastland 244	21.6	5.0	58	98	73
Muncy Chief SX460	21.5	4.3	50	95	71
Pride 2206	20.4	4.5	55	97	69
PAG 503	20.3	4.8	60	90	62
LSD 5%	4.13	1.06	6.1	6.6	3.3

1. Silage - 70% moisture
2. Earcorn - 25% moisture
3. Percent of total dry matter in ears

Planting Date

May 16, 1980

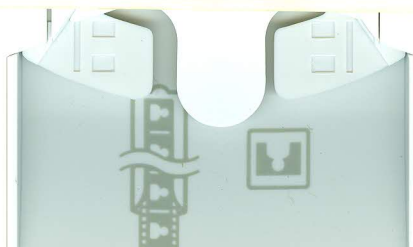
Harvest Date

September 16, 1980

Growing Degree DaysRainfall (inches)

	1980	Norm	1980	Norm
May	199*	(316)	0.38*	(2.09)
June	439	525	4.03	3.75
July	749	691	1.83	3.58
August	711	632	1.64	4.01
September	287	(438)	0.34	(1.96)
	2385	2653	8.22	11.55
		2471		18.47

* Planting to harvest date



Medium-Late Maturity Hybrids 1980

Hybrid	Silage ¹ t/ac	Earcorn ² t/ac	Percent Ears ³	Non-lodged Plants %	Moisture Content %
Dekalb XL72aa	31.4	5.8	47	92	75
Northrup King PX603	29.3	5.4	46	96	74
Pride 4488	29.1	6.4	55	96	71
PAG SX181	28.5	6.6	58	93	67
Todd M53	28.4	5.9	52	100	73
Northrup King PX37	28.1	6.0	54	100	72
Funk G4321A	27.9	6.2	56	95	72
Agway 595S	27.7	6.4	58	97	69
Todd M5505	27.6	5.7	51	94	74
Muncy Chief SX777	27.5	4.8	43	98	75
Asgrow RX511	27.4	5.7	52	95	73
Agway 615S	27.4	5.7	52	100	75
Agway 584S	27.3	5.9	54	95	72
Agway 754X	27.0	4.7	44	100	76
Pioneer 3572	26.7	5.0	47	100	73
Funk G4444	26.5	6.2	58	90	70
Jacques JX162	26.4	6.0	57	94	73
Pride R-549	25.7	4.8	46	96	74
Funk G4315	25.5	5.5	54	94	71
Pioneer 3780	25.4	5.7	56	98	71
Seneca S2361	25.1	5.7	56	99	72
Northrup King PX39	25.1	5.1	51	99	74
Dekalb XL30	25.0	5.2	52	99	74
Muncy Chief SX662	23.8	4.0	41	99	76
Agway 590X	23.8	5.5	57	96	72
PAG SX189	23.7	5.4	57	98	68
LSD 5%	4.53	1.11	5.9	5.7	1.9

1. Silage - 70% moisture
2. Earcorn - 25% moisture
3. Percent of total dry matter in ears

Planting Date

May 16, 1980

Harvest Date

September 19, 1980

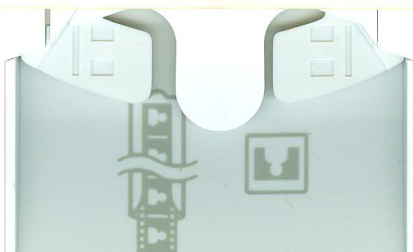
Growing Degree Days

	1980	Norm
May	199*	254
June	439	525
July	749	691
August	711	632
September	317	369
	2415	2471

Rainfall (inches)

	1980	Norm
May	0.38*	3.55
June	4.03	3.75
July	1.83	3.58
August	1.64	4.01
September	1.33	3.58
	9.21	18.47

* Planting to harvest date



Early-Medium Maturity Hybrids 1980, North Brookfield

Hybrid	Silage ¹ T/ac	Non-Lodged Plants %	Moisture Content %
Agway 425X	29.4	99	73
Agway 370X	26.6	100	71
PAG SX189	26.6	99	69
Jacques JX99A	26.3	99	69
Pride 2206	25.9	99	67
Todd MX33	25.9	100	67
Dekalb XL25A	25.4	99	74
Stewart 325	24.1	100	73
Todd M15	24.1	99	61
Muncy Chief SX560	24.0	100	73
Seneca 321	24.0	95	70
Cornell 281	23.7	98	67
Dekalb XL13	23.4	98	72
Asgrow RX355	23.3	93	68
Agway 590X	23.1	94	74
Pioneer 3950	22.3	100	70
Northrup King PX11	22.2	100	64
Northrup King PX485	21.9	100	72
Funk G4065	21.1	99	66
Pioneer 3901	20.9	95	73
PAG SX111	20.4	97	66
Seneca 140	19.8	98	66
Eastland 244	19.7	96	71
Stewart 2660	19.5	97	63
Funk G4141	19.3	98	71
LSD 5%	5.67	6.3	4.6

1. Silage - 70% moisture

Planting Date

May 29, 1980

Harvest Date

September 23, 1980

