

Corn Silage Demonstration

Lester Dawson, Maricopa County Agricultural Agent; and David K. Parsons, Assistant Extension Specialist--
Field Testing, University of Arizona, (8) 1981.

Dick Hanger Maricopa County

Elevation: 1200 feet

Crop History:

Planted: March 13, 1981
 Harvested: June 30, 1981
 Previous Crop: Cotton
 Seeding Rate: 25000 seeds/acre
 Insecticide: Furadan (1.0 lb/acre active ingredient) was applied in May for control of S.W. corn borer.
 Irrigation: 6 irrigations totaling 2.8 acre feet/acre were applied.

Fertilizer:

Source	Lbs/A	Time of Application	Lbs N/A
Urea	200	Prior to Planting	92
Urea	200	In April as a side dressing	92
Total			184

Plot Size: 6.3 x 1298 feet (two 38 inch rows)

Company	Entry	Rep 1	Rep 2	Rep 3	Ave. Yield (lbs)	Harvest ^{2/} Dry Matter (%)	Harvest Population (1000)	Yield ^{1/} (tons/acre)
Pioneer	3183	9050	9080	9780	9300	31	19.5	24.8
Funks	4657	9150	9460	8350	8990	30	25.0	23.9
Moews	WM724	9170	8860	8180	8740	32	25.0	23.3
Praire Valley	7795	9140	8390	7770	8430	25	25.0	22.4
Northrup King	PX93	8270	8580	7810	8220	26	28.5	21.9
DeKalb	XL74A	8830	7940	7670	8150	29	23.0	21.7
Asgrow	450A	8310	7870	7880	8020	25	18.5	21.4
Northrup King	PX87	8680	7780	7220	7890	25	22.5	21.0
Ferry Morse	4025	7550	7030	7300	7290	30	22.0	19.4
Pioneer	3147	7520	7060	7210	7260	26	20.0	19.3
Paymaster	U398W	7560	7030	7090	7230	25	19.5	19.3

^{1/}Yields have been adjusted to a 70% moisture content.

^{2/}Maximum yield of high quality silage is usually obtained when harvested at the early dent growth stage as the corn approaches a dry matter content of 30%. Harvest dry matter percentage of less than 26 indicates an appreciable reduction of both yield and quality.

Corn Silage Demonstration

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Elevation: 1200 feet

Crop History:

Planted: March 17, 1980

Harvested: July 15, 1980

Previous Crop: Silage corn

Fertilizer: Approximately 90 lbs of N/acre were applied as urea prior to planting. An additional 100 lbs N/acre were applied during cultivation as NH₃.

Plot size: 6.3 x 1250 (two 38 inch rows)

Company	Entry	Yield ^{1,2} (tons/ acre)	Harvest ³ Dry Matter (%)	Protein ^{4,5} (%)	Fiber ^{4,5} (%)	TDN ⁵ (%)	Maturity (days)	Popula- tion (plant /acre)	TDN ⁵ (tons/ acre)
Pioneer	3183	22.7a	29	5.91	32.53	66.7	131	25000	4.53
Acco	U398W	18.8 b	24	5.81	36.37	66.5	125	26830	3.75
MOEWS	WM 724	16.6 bc	25	6.99	29.13	68.1	118	30580	3.38
Ferry Morse	GT-302b	16.4 bcd	26	4.90	36.70	66.3	115	21250	3.25
DeKalb	XL 74A	16.3 bcd	22	6.47	31.40	63.8		26670	3.12
MOEWS	WM 822	15.9 cde	25	5.98	32.13	67.7	118	28500	3.21
Bojac	35	15.3 cdef	26	6.74	32.01	67.6		27420	3.10
Pioneer	3222	15.2 cdef	23	7.38	32.87	65.6	129	32220	2.98
Northrup King	PX 788	13.7 def	22	6.16	38.15	71.6	145	28000	2.95
Northrup King	PX 99	13.2 ef	23	7.35	41.17	63.9	140	28500	2.53
DeKalb	Exp 99013	13.1 ef	23	7.45	44.19	64.4		25550	2.54
Asgrow	450A	12.8 f	23	7.75	36.09	65.4	130	20330	2.51

^{1/} Adjusted to a 70% moisture content

^{2/} Means followed by same letter are not significantly different at the .05 level by Student-Newman-Keuls' test.

^{3/} Maximum yields of high quality silage are usually obtained when harvested at the early dent growth stage as the corn approaches a dry matter content of 30%. Harvest dry matter percentage of less than 26 indicates an appreciable reduction of both yield and quality.

^{4/} Figure shown is the average of two analyses of a mixed sample from the four replications in the test. (U of A Animal Science Lab.)

^{5/} On a dry matter basis.

Agri-File Field Crops 243.24 and 243.25