

Corn Variety Trial in Greenlee County, 1986

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ABSTRACT

Ten varieties of 115 to 125 day corn hybrids were tested in an on going variety trial in Greenlee county. Drying costs were also calculated to not only determine the top-yielding variety but also the variety having the highest net value after subtracting drying costs. Pioneer 3183 ranked top in both categories.

INTRODUCTION

Corn is being planted on an increasing number of acres in Greenlee county. With all the grain markets remaining soft, the increased yield potential of corn looks more inviting to farmers. Searches for new hybrids with high yield potentials continue. This trial contains three hybrids new to this area. Northrup King 9540 and DeKalb 711 were newly developed by the seed companies, and there was reason to believe that they would be adapted to this area. The third hybrid, PAG SX352, produced more than 300 bushels per acre in the National Corn Growers Association Contest in Nebraska, and even though it was a long shot, it was placed in the trial.

MATERIALS AND METHODS

The experimental plot was located in a field operated by the Lunt dairy and located next to the Gila river near Virden, New Mexico. The field was bedded and pre-irrigated prior to planting. The planting was done using a John Deere plateless planter.

Elevation: 3,800 feet above sea level

Planting date: 7 May

Planting rate: 29,500 seeds per acre

Insecticide: 10 lbs per acre of Furadan in-furrow at planting

Fertilizer: 20 tons of manure, 200 lbs of 11-53-0, 150 lbs of Urea/ac

Plot size: 4 - 36 inch rows 1,000 to 1,100 feet in length

Replications: 4

Harvest date: 21 October

The plots were harvested with a John Deere 6620 with a four row header and weighed at the end of each strip with a weigh wagon provided by Northrup King or Pioneer seed company.

RESULTS AND DISCUSSION

Table 1. Yields and other Measured Variables on Corn Varieties Grown in Greenlee County 1986.

Variety	%M	Bu Wt lbs	Yield* lbs/ac	Pl/ac	%Bare	%Lodg	Wt/ear lbs
Pioneer 3183	16.4	58.5	9603a**	29494	5.1	2.9	0.35
PAG SX352	14.8	56.4	9257ab	27225	1.4	9.5	0.35
DeKalb 711	17.0	58.5	9171ab	29040	7.6	7.8	0.34
Pioneer 3377	15.2	56.3	9167ab	28133	10.2	0.0	0.37
DeKalb 656	14.2	57.9	9071ab	29948	21.8	3.9	0.40
Gldn Har 2601	14.4	57.4	9019ab	24049	11.4	7.8	0.43
Asgrow 2570	15.0	57.3	8886ab	23595	11.1	10.7	0.44
NK 9540	14.7	59.0	8757 b	29645	18.2	8.1	0.36
Cenex 2115	15.3	58.5	8703 b	25410	1.7	3.6	0.35
Pmstr 8990	16.6	58.2	7501 c	33880	12.6	10.4	0.26

* Yields are corrected to 15.5% moisture

** Values with the same letter are not significantly different at the 5% level using the Student-Newman-Keuls test.

The data in Table 1 are self-explanatory. There were no significant correlations between yield and plant population nor between plant population and % barren and % lodging. The most important item for the corn growers is found in Table 2 where the net value of the crop is shown.

Table 2. Economic Production and Drying Costs on a per Acre Basis of Corn Varieties Grown in Greenlee County 1986.

Variety	% M	Yield*	Value**	DryCost***	NetValue
Pioneer 3183	16.4	9603	\$422.52	\$7.68	\$414.84
PAG SX352	14.8	9257	407.30	0.00	407.30
DeKalb 656	14.2	9071	399.14	0.00	399.14
Gldn Har 2601	14.4	9019	396.85	0.00	396.85
Pioneer 3377	15.2	9167	403.33	7.33	396.00
DeKalb 711	17.0	9171	403.51	8.26	395.25
NK 9540	14.7	8757	385.31	0.00	385.31
Asgrow 2570	15.0	8886	390.99	7.11	383.88
Cenex 2115	15.3	8703	382.91	6.96	375.95
Pmstr 8990	16.6	7501	330.04	6.01	324.03

* Yields are corrected to 15.5 % moisture.

** Values are calculated assuming \$4.40 per cwt of corn.

*** Drying costs are figured using the drying schedule at Bonita Grain.

Drying costs shifted the order of the varieties from Table 1 to Table 2, giving an advantage to the quicker maturing cultivars. The top two, however, stayed in the same order. PAG SX352 made a good showing, but Pioneer 3183 retains its title as top producer.