

2006 DRYLAND RESEARCH PLOT

Case No.	Variety	Plants per Acre	K/10g	Oil Exp.	Ball% in Oil	Tenderness	Hull	Plants Harvested	Ears Harvested	Ear Size	Kernel shape	Harvest Moisture	Row Weight	Yield at 14%	Lodging
1	1160	22000	71	46.5	0	4.2	3.8	42	26	2.2	2.7	18.5	4.94	1.791	0%
2	11649	22000	74	44.5	0	3.8	3.4	43	31	2.0	2.4	18.5	5.18	1.886	0%
3	11830	22000	58	38.0	50B	2.5	2.5	34	33	2.5	2.0	18.6	7.36	2.746	12%
4	11850	22000	67	48.5	0	4.0	3.7	46	36	2.4	1.2	18.5	6.94	2.584	0%

Research Plot Variables

The plot was hand planted on May 17th on sandy silt loam soil, surrounded by field corn. The previous years crop was soybeans at 45bu/acre yield. A pre plant application of 80lbs of N along with 15lbs of S in the sulfate form was applied. A starter fertilizer of 70lbs of 8-20-0-8S was banded at planting. Herbicide was Dual II at one half corn rate in a 10 inch band at planting. The plot was cultivated twice in June. No late season weed pressure was noted. No significant insect damage was noted. The plot was not irrigated. No fungicide was used.

Environmental Conditions

May-6 degrees above normal- no precipitation

June- 5 degrees above normal- 6 days above 95F- 3.5 inches of rain after June 16th

July- 7 degrees above normal- 8 days above 100F- 1.95 inches of rain

August- 7 degrees above normal- 2.1 inches of rain

Growing season- 6.25 degrees above normal average- 7.55 inches of rain +1.5 inches of available soil moisture

Results

All four hybrids increased their kernel size 6 to 10 kernels per 10 grams from their normal size. Even under extremely stressful conditions the yields of all four hybrids are favorable. N11850 and N11830 were able to maintain a higher yield under these conditions than the other two hybrids. The quality of all four hybrids was not adversely affected by the stressful conditions. N11850 was able to attain near its maximum potential for expansion. Under these conditions none of the hybrids standing ability was adversely affected.

Conclusions

The most significant information this research plot provided was that even under the most extreme drought conditions all four hybrids were able to produce a product with good quality scores. All four hybrids quality scores were close if not better than their average scores under favorable growing conditions. N11850 and N11830 were able to produce higher yields under these conditions. All four hybrids were able to maintain good standability under these conditions. Although quality scores were good the kernel size was affected by these stress factors.