

2008 Grain Corn Hybrid Variety Performance Strip Trial Powell Research and Extension Center

**Mike Killen, UW Powell Research and Extension Center;
Sandy Frost, UW Cooperative Extension Service**

The University of Wyoming, Powell Research and Extension Center in cooperation with local seed corn dealers conducted a study designed to evaluate the corn grain yield and quality characteristics of ten varieties. Varieties were planted in 0.64 acre strips and managed using the best management practices for the soil and growing conditions at the University of Wyoming Research and Extension Center in Powell, Wyoming during 2008.

Materials and Methods

The soil was a Garland clay loam (fine, mixed, mesic; Typic Haplargid) and had a cropping history of dry beans (2006) and barley (2007). The study area was prepared for planting by fall plowing, disking, roller harrowing and leveling. Fertilizer was applied on 11 April, at the rate of 120 pounds N and 75 pounds P₂O₅ per acre, in the form of urea (46-0-0) and diammonium phosphate (11-52-0). On 7 May, nine corn varieties were established in plots 6 rows by 1280 ft feet using a John Deere Maximerge 7200 row crop planter with double disk openers set at a row spacing of 22 inches. Seeding depth was 1.5 inches, and the seeding rate was 40,000 plants per acre. Stand counts were taken on 25 May. Weeds were controlled with one post application of glyphosate (Roundup Power Max) + AMS broadcast at 1 quart per acre on 9 June. A sidedress application of UAN 32% was applied at a rate of 110 pounds N per acre on 20 June. Furrow irrigations were 9 May, 28 June, 10 July, 12 July, 27 July, 11 August, 21 August and 8 September. Plots, 15 ft (8 rows) by 1250 ft were harvested using an IH 1440 Axial flow combine equipped with an 8 row 863 corn head on 10 December. Results are presented in Table 1.

Table 1. Agronomic Performance of Grain Corn Hybrid Varieties at Powell Research and Extension Center, 2008.

Variety	Company	Day	Units	Moisture	Yield	Test Wt	Stand
		Relative Maturity	Growing Degree	%	bu/acre @15.5%	lb/bu	plants/acre
2538 RR	Croplan	86	2210	16.1	183	52.1	33270
H6456GT/CB/LL	Golden Harvest	89		17.7	183	47.2	30894
DKC38-89 AR	Dekalb	88	2280	17.1	177	49.5	30498
3114 VT3	Croplan	92	2340	17.1	175	49.6	29705
DKC42-91 AF2	Dekalb	92	2320	17.6	170	49.2	33270
H6480GT	Golden Harvest	89		15.2	161	48.9	30101
DKC43-27 AR	Dekalb	93		16.4	161	51.0	30101
H6219GT	Golden Harvest	84		15.2	152	52.8	32082
H6759 3000GT	Golden Harvest	92		19.4	142	47.1	31290
H6724GT	Golden Harvest	93		21.4	138	43.5	30101
Average				17.32	164	49.1	31131

Results and Discussion

Cool weather and rain following planting delayed development for several weeks. The remainder of the growing season was cool. The corn grain was slow to dry down due to immaturity at first frost. Grain yields and quality characteristics are presented in Table 1.

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