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

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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 0.32 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 P_2O_5 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, 7.3 ft (4 rows) by 1250 ft, were harvested using a John Deere silage chopper equipped with a 2-row head on 25 September. Samples were collected and sent to Dairyland Laboratories for forage quality analysis. The results are presented in Tables 1and 2.

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

Variety	Company	Day	GDU	Dry Matter	Yield(1)	Stand
		Relative Maturity		%	tons/acre @70%	plants/acre
DKC57-43 AR2	Dekalb	107	2705	27.0	30.7	38023
DKC54-49 AR	Dekalb	104	2589	26.6	30.3	39211
H8064 GT/CB/LL	Golden Harvest	104		29.9	29.8	37627
3624 VT3	Croplan	96	2410	31.0	29.8	40003
DKC54-20 RR2/YG/CB	Dekalb	104	2590	28.7	29.2	36835
364 VT3	Croplan	95	2430	32.4	28.6	37627
L6H07RR	Golden Harvest	95		30.6	27.7	38419
H7437 GT/CB/LL	Golden Harvest	99		27.4	27.4	36835
H7542 GT	Golden Harvest	100		25.9	22.6	37627
Average				**28.8**	**28.4**	**38023**

1. Yield is reported @ 70% moisture content.

Table 2. Forage Quality Characteristics of Silage Corn Hybrid Varieties at Powell Research and Extension Center, 2008.

Variety	Company	Day	Moist	CP	ADF	NDF	NDFD	IVTDMD	Starch	Corn Sil.
		RM	%	%	%	%	%	%	%	Milk/Ton
DKC57-43 AR2	Dekalb	107	71.8	6.68	28.81	49.08	63.04	81.86	98.00	2726
DKC54-49 AR H8064	Dekalb	104	73.9	7.73	29.09	49.14	59.03	80.00	98.00	2778
GT/CB/LL	Golden Harvest	104	67.9	7.08	26.82	45.46	61.59	82.54	98.00	3035
3624 VT3	Croplan	96	60.5	9.31	18.59	35.58	72.57	90.24	85.17	3437
DKC54-20 RR2/YG/CB	Dekalb	104	68.0	6.94	28.43	48.69	62.59	81.96	98.00	3093
364 VT3	Croplan	95	66.0	7.30	26.96	46.14	62.42	82.66	95.11	3242
L6H07RR H7437	Golden Harvest	95	66.6	7.97	25.88	44.59	59.63	82.00	96.16	3277
GT/CB/LL	Golden Harvest	99	71.5	7.92	25.76	44.15	61.49	83.00	98.00	2918
H7542 GT	Golden Harvest	100	74.1	8.14	26.79	47.41	63.51	82.70	98.00	2646
Average			**68.9**	**7.67**	**26.35**	**45.58**	**62.87**	**83.00**	**96.05**	**3017**

Results and Discussion

Cool weather and rain following planting delayed development for several weeks. The remainder of the growing season was cool. Silage yields and quality characteristics are presented in Tables 1 and 2.

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