

## 2007 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 0.64 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 2007.

### Materials and Methods

The soil was a Garland clay loam (fine, mixed, mesic; Typic Haplargid) and had a cropping history of mixed grass and alfalfa hay (2006-1995). The study area was prepared for planting by fall plowing, disking, roller harrowing and leveling. Fertilizer was applied on 14 May, at the rate of 120 pounds N and 50 pounds P<sub>2</sub>O<sub>5</sub> per acre, in the form of urea (46-0-0) and diammonium phosphate (11-52-0). On 15 May, eight corn varieties were established in plots 12 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 22 June. Weeds were controlled with one post application of glyphosate (Roundup) + AMS broadcast at 1 quart per acre on 9 June. A sidedress application of UAN 32% was applied at a rate of 100 pounds N per acre on 20 June. Furrow irrigations were 21 May, 29 June, 10 July, 18 July, 28 July, 13 August, and 27 August. Plots, 7.3 ft (4 rows) by 1260 ft, were harvested using a John Deere silage chopper equipped with a 2-row head on 24 September. Samples were collected and sent to Dairyland Laboratories for forage quality analysis. The results are presented in Tables 1 and 2.

**Table 1. Agronomic Performance of Silage Corn Hybrid Varieties at Powell Research and Extension Center, 2007.**

Variety	Company	Day	GDU	Dry Matter	Yield(1)	Stand
		Relative Maturity		%	tons/acre @70%	plants/acre
9248015(DKC52-40)	Dekalb	102	2550	32.8	31.6	39805
364TS	Croplan	97	2450	35.2	31.2	40993
663627(DKC55-82)	Dekalb	105	2630	27.5	31.0	39805
4664RB	Croplan	102	2440	32.8	29.3	38617
DS93RR2	Croplan	93		33.8	28.5	40399
L7H69Bt/RR/RW	Golden Harvest	100		33.4	27.8	39805
L-6H08RR/RW	Golden Harvest	95		30.5	26.3	39805
3824TS	Croplan	98	2460	29.3	26.1	37429
<b>Average</b>				<b>31.9</b>	<b>29.0</b>	<b>39582</b>

(1)Yield is reported @ 70% moisture content

**Table 2. Forage Quality Characteristics of Silage Corn Hybrid Varieties at Powell Research and Extension Center, 2007.**

Variety	Company	Day	Moist	CP	ADF	NDF	NDFD	IVTDMD	Starch
		RM	%	%	%	%	%	%	%
663627(DKC55-82)	Dekalb	105	72.5	8.76	30.57	50.57	58.35	78.94	21.24
9248015(DKC52-40)	Dekalb	102	67.2	7.94	27.41	45.32	55.52	79.84	29.46
3824TS	Croplan	98	70.7	7.86	29.68	50.56	50.77	75.11	22.56
364TS	Croplan	97	64.8	7.55	28.01	47.64	57.12	79.57	27.25
DS93RR2	Croplan	93	66.2	8.88	29.97	50.03	57.19	78.58	21.24
4664RB	Croplan	102	67.2	8.13	29.04	48.82	50.02	75.60	25.16
L-6H08RR/RW	Golden Harvest	95	69.5	7.79	27.24	46.48	55.16	79.16	28.54
L7H69Bt/RR/RW	Golden Harvest	100	66.6	7.63	28.41	47.59	50.18	76.29	26.51
<b>Average</b>			<b>68.1</b>	<b>8.07</b>	<b>28.79</b>	<b>48.38</b>	<b>54.29</b>	<b>77.89</b>	<b>25.25</b>

### Results and Discussion

Cool weather following planting delayed development for several weeks. The remainder of the growing season was excellent. A frost, 29 deg F, on 9 September killed the upper leaves of the plants.

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