

Western Colorado Alfalfa Variety Performance Test at Fruita 2007

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Summary

The 2007 results of Colorado State University's alfalfa variety performance test at Fruita are presented below in Table 1. Plots were planted fall 2004 and the data for 2007 are for the third year of a three-year testing period. Alfalfa stands are excellent and plots are weed-free. The field is furrow-irrigated using gated pipe.

Table 1. Forage yields of 11 alfalfa varieties at the Western Colorado Research Center at Fruita in 2007.¹

Variety	Source/Brand	1 st Cut May 24	2 nd Cut July 3	3 rd Cut Aug. 14	4 th Cut Oct. 3	2007 Total	3-yr Total ²
		tons/acre ³					
Mountaineer 2.0 4542	Croplan Genetics	3.78	2.58	2.29	1.43	10.08	29.99
	Forage Genetics Intl.	3.70	2.58	2.27	1.32	9.87	29.61
FSG 351	Allied Seed, L.L.C.	3.23	2.28	2.95	1.24	9.69	29.54
FSG 505	Allied Seed, L.L.C.	3.64	2.51	2.30	1.35	9.80	29.22
WL 357 HQ	W-L Research	3.32	2.37	2.19	1.36	9.24	28.83
CW 15030	Cal/West Seeds	3.34	2.47	2.24	1.29	9.34	28.79
CW 13014	Cal/West Seeds	3.22	2.45	2.44	1.23	9.33	28.50
FSG 408DP	Allied Seed, L.L.C.	3.30	2.40	2.46	1.21	9.37	28.48
FSG 406	Allied Seed, L.L.C.	3.42	2.36	2.55	1.17	9.49	28.40
Garst 6530	Garst	3.38	2.29	2.13	1.14	8.95	28.34
Bullseye	Target Seed	3.38	2.46	2.44	1.35	9.64	28.22
Ave.		3.43	2.43	2.39	1.28	9.53	28.90
CV (%)		8.3	8.9	11.0	8.7	6.2	3.3
LSD (0.05)		NS	NS	0.38	0.16	NS	NS

¹Seeded 26 August 2004 at 15 lbs/acre.

²Table is arranged by decreasing 3-yr total yield.

³Yields were calculated on an air-dry basis.

Last spring frost – April 19, 2007; first fall frost – October 18, 2007. Frost-free days for 2007 - 182 days (28°F base). Fertilizer: 276 lbs P₂O₅/acre and 108 lbs N/acre broadcast as 18-46-0 on August 16, 2004 and plowed down prior to planting. Applied Raptor at 6.0 oz/acre plus Select 2EC at 1 pt/acre (added 1 qt. of UAN plus 1 qt. crop oil concentrate and 1 gal. of URAN fertilizer in 100 gallons of water) using 19 gals water/acre at 25 psi for weed control on 9 Mar 2007.

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Mention of a trade name or proprietary product does not imply endorsement by the author, the Agricultural Experiment Station, or Colorado State University.

**Forage yields of 29 alfalfa varieties at the Agricultural Research, Development and Education Center
Fort Collins, Colorado in 2007¹**

Variety	Brand/Source	1 st Cut	2 nd Cut	3 rd Cut	4 th Cut ²	Total				
		1-Jun	11-Jul	8-Aug	20-Sep	2007	2006	2005	3-Year ³	
tons/acre ⁴										
Genoa	Syngenta Seeds, Inc.	3.67	4.08	2.56	2.15	12.46	9.65	7.66	29.77	
WL 357HQ	W-L Research	3.71	3.98	2.65	2.18	12.53	8.93	7.52	28.98	
DKA50-18	Monsanto Co.	3.35	3.80	2.78	2.15	12.08	9.09	7.61	28.78	
LegenDairy 5.0	Croplan Genetics	3.81	3.87	2.68	2.05	12.40	8.78	7.49	28.67	
FSG 505	Allied Seed, LLC	3.43	3.84	2.53	2.15	11.95	9.00	7.60	28.55	
FSG 408DP	Allied Seed, LLC	3.60	3.85	2.43	2.04	11.92	8.53	7.81	28.26	
54V46	Pioneer Hi-Bred Int'l	2.95	3.72	2.47	1.99	11.12	9.00	7.78	27.90	
WL 335 HQ	W-L Research	3.43	3.76	2.47	2.04	11.70	8.46	7.63	27.79	
DKA42-15	Monsanto Co.	3.37	3.91	2.49	2.00	11.78	8.71	7.24	27.73	
Abundance	Sharp Bro. Seed Co.	2.87	3.59	2.26	1.82	10.54	9.11	7.84	27.49	
4S42	Forage Genetics Int'l	2.78	3.72	2.41	1.92	10.83	8.60	7.87	27.30	
FSG 351	Allied Seed, LLC	3.18	3.56	2.43	1.97	11.13	8.57	7.33	27.03	
FSG 406	Allied Seed, LLC	3.10	3.58	2.24	1.87	10.79	8.59	7.63	27.01	
CW 15030	Allied Seed, LLC	2.85	3.51	2.40	1.98	10.73	8.46	7.71	26.90	
Mountaineer 2.0	Croplan Genetics	3.09	3.61	2.30	1.85	10.85	8.58	7.46	26.89	
54Q25	Pioneer Hi-Bred Int'l	3.01	3.35	2.36	1.96	10.68	8.51	7.68	26.87	
Jade III	NC+ Hybrids	3.13	3.67	2.32	1.99	11.11	8.55	7.02	26.68	
L-311	Legacy Seeds, Inc.	3.32	3.27	2.28	1.83	10.71	8.31	7.54	26.56	
4A421	Mycogen Seeds	2.88	3.55	2.37	1.87	10.67	8.52	7.29	26.48	
A 30-06	PGI Alfalfa Inc.	3.18	3.49	2.14	1.80	10.61	8.32	7.53	26.46	
Everlast	Legacy Seeds, Inc.	2.93	3.64	2.29	1.85	10.71	8.08	7.64	26.43	
ZG 0347A	ABI Alfalfa, Inc.	3.18	3.52	2.27	1.89	10.86	8.08	7.28	26.22	
Goliath	Allied Seed, LLC	3.15	3.59	2.21	1.78	10.74	8.23	7.25	26.22	
HybriForce 420/Wet	Dairyland Seed Co.	2.85	3.47	2.21	1.75	10.28	8.31	7.50	26.09	
L-411 HD	Legacy Seeds, Inc.	2.74	3.66	2.34	1.80	10.55	8.04	7.46	26.05	
Enhancer	Sharp Bro. Seed Co.	2.74	3.57	2.22	1.79	10.32	8.09	7.38	25.79	
ZG 0353A	ABI Alfalfa, Inc.	2.98	3.36	2.13	1.75	10.22	8.27	6.71	25.20	
Garst 6400 HT	Garst Seed Co.	2.85	3.35	1.97	1.62	9.79	8.00	7.23	25.02	
GH-711	J.C. Robinson Co.	2.72	3.27	2.16	1.72	9.87	7.63	7.16	24.66	
Average		3.13	3.63	2.36	1.92	11.03	8.52	7.48	27.03	
CV (%)		18.35	9.90	7.22	9.02	9.74	6.93	6.44	6.17	
LSD _(0.05)		NS	NS	0.24	0.24	1.51	0.83	NS	2.34	

¹Trial seeded on 8/30/04.

²Four cuttings were taken in 2007 compared to previous years which accounts for the higher total yields in 2007.

³Table is arranged by decreasing 3-year total yield.

⁴Yields were calculated on an oven-dry basis.

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The 2007 results of Colorado State University's alfalfa variety performance test at Center are presented. Plots were planted in July 2006. Alfalfa stands are excellent and plots are mostly weed-free. This years results are the first year harvest of a three-year testing period. The field was center pivot irrigated. Summer in 2007 was warmer than normal. The first harvest was excellent; the second cutting was rained on, and the third cutting yield was disappointing.

Forage yields of 16 alfalfa varieties at Center (San Luis Valley)^{1/} in 2007.

Variety	Source	Harvest Yield			2007 Total
		6/18	7/23	9/17	
-----tons/acre ² -----					
FSG 351	Allied Seed	2.47	2.32	1.03	5.82 A ^{3/}
L 447 HD	Legacy Seeds	2.50	2.14	1.10	5.74 AB
Genoa	NK/Syngenta	2.45	2.17	1.08	5.69 ABC
Ranger	USDA-NE AES	2.48	2.06	1.11	5.65 ABC
Lariat 120	JR Simplot Co	2.47	2.20	0.98	5.64 ABC
WL 357 HQ	WL Research	2.36	2.24	1.01	5.61 ABC
Ameristand 407TQ	America's Alfalfa	2.32	2.19	1.07	5.58 ABC
Whitney	Eureka Seeds	2.44	2.07	1.05	5.56 ABC
FSG 406	Allied Seed	2.41	2.13	1.02	5.56 ABC
Medalist	Int. Farmers Assoc.	2.41	2.15	0.94	5.50 BC
FSG 408 DP	Allied Seed	2.39	2.08	0.97	5.44 C
Mountaineer 2.0	Croplan Genetics	2.27	2.13	1.03	5.44 C
Vernal	USDA-WI AES	2.32	2.10	1.01	5.43 C
54V09	Pioneer	2.37	2.15	0.90	5.42 CD
FSG 425 RR	Allied Seed	2.38	1.93	0.83	5.14 DE
WL 355 RR	WL Research	2.27	1.90	0.87	5.03 E
Average		2.39	2.12	1.00	5.52
CV (%)		5.01	4.64	10.42	4.49
LSD (0.10)		N.S.	0.12	0.12	0.29

^{1/} Trial conducted on the Richard Ramstetter Farm, Saguache County Road 44 & Road B; seeded 7/20/06 at 20 lbs/acre.

^{2/} Yields calculated on oven-dry basis.

^{3/} Tukey's Test: Yields followed by the same letter are not statistically different.

Site Information:

Elevation = 7700 ft.

Average annual precipitation = 6.92 inches.

Average frost-free days = 88days (32° F).

Average last spring frost - June 10; average first fall frost - September 6.

Soil Series: Platoro Loam / Norte gravelly sandy loam.

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