

Western Colorado Alfalfa Variety Performance Test at Fruita 2006

The 2006 results of Colorado State University's alfalfa variety performance test at Fruita are presented in this report. Plots were planted fall 2004 and the 2006 data are for the second year of a three-year testing period. Results for 2006 are presented in Table 1. Alfalfa stands are excellent and plots were weed-free during the growing season. The field was furrow-irrigated using gated pipe. Summer 2006 in western Colorado was very favorable for crop production and alfalfa yields were excellent.

In 2006, there were 14 days during the summer when temperatures reached 100°F. In 2005, there were 10 ten days during the summer when temperatures reached 100°F. The average growing season for Fruita is 181 days. The 2006 growing season was 184 days.

Table 1. Forage yields of 11 alfalfa varieties at Fruita in 2006.¹

Variety	Source/Brand	1 st Cut	2 nd Cut	3 rd Cut	4 th Cut	2006	2-yr
		May 25	July 13	Aug 29	Oct 4	Total ²	Total
		tons/acre ³					
Mountaineer 2.0	Croplan Genetics	3.82	3.02	2.12	1.31	10.27	19.91
WL 357 HQ	W-L Research	3.73	3.08	2.12	1.29	10.22	19.60
Garst 6530	Garst	3.84	2.99	2.14	1.19	10.16	19.38
4542	Forage Genetics Intl	3.60	3.08	2.13	1.28	10.10	19.74
FSG 351	Allied Seed, L.L.C.	3.48	3.16	2.17	1.18	10.00	19.85
CW 15030	Cal/West Seeds	3.55	2.97	2.20	1.26	9.98	19.44
FSG 408DP	Allied Seed, L.L.C.	3.42	3.09	2.15	1.19	9.85	19.11
FSG 505	Allied Seed, L.L.C.	3.62	2.90	2.08	1.22	9.81	19.42
Bullseye	Target Seed	3.57	2.75	2.25	1.23	9.80	18.58
CW 13014	Cal/West Seeds	3.46	2.83	2.08	1.23	9.60	19.17
FSG 406	Allied Seed, L.L.C.	3.54	2.84	1.97	1.16	9.50	18.90
Average		3.60	2.97	2.13	1.23	9.94	19.37
CV%		8.29	5.99	4.33	6.16	3.94	3.48
LSD _(0.05)		NS	0.26	0.13	NS	NS	NS

¹Trial conducted on the Western Colorado Research Center; seeded 8/26/04 at 15 lbs/acre.

²Table is arranged by decreasing 2006 total yield.

³Yields were calculated on an air-dry basis.

Last spring frost – April 21, 2006; first fall frost – October 22, 2006. Frost-free days for 2006 - 184 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 Pursuit DG at 1.44 oz/acre plus Select at 10 oz/acre (added 1 qt. of UAN plus 1 qt. crop oil concentrate in 100 gallons of water) using 22 gals water/acre at 25 psi for weed control on 3 Mar 2006.

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Forage yields of 29 alfalfa varieties at Fort Collins (ARDEC) in 2006¹

Variety	Brand/Source	1 st Cut	2 nd Cut	3 rd Cut	2006	2005
		Jun 3	Jul 21	Sept 14	Total	Total
		tons/acre ²				
4A421	Mycogen Seeds	3.62	3.01	1.89	8.52	7.29
4S42	Forage Genetics Int'l.	3.72	2.96	1.92	8.60	7.87
54Q25	Pioneer Hi-Bred Int'l.	3.54	2.98	1.99	8.51	7.68
54V46	Pioneer Hi-Bred Int'l.	3.97	2.89	2.14	9.00	7.78
A 30-06	PGI Alfalfa Inc.	3.48	2.92	1.92	8.32	7.53
Abundance	Sharp Bro. Seed Co.	4.18	3.12	1.82	9.11	7.84
CW 15030	Allied Seed, L.L.C.	3.53	3.07	1.87	8.46	7.71
DKA42-15	Monsanto Co.	3.74	2.85	2.12	8.71	7.24
DKA50-18	Monsanto Co.	4.21	3.01	1.87	9.09	7.61
Enhancer	Sharp Bro. Seed Co.	3.25	2.91	1.93	8.09	7.38
Everlast	Legacy Seeds, Inc.	3.69	2.60	1.79	8.08	7.64
FSG 351	Allied Seed, L.L.C.	3.93	2.84	1.81	8.57	7.33
FSG 406	Allied Seed, L.L.C.	3.85	2.80	1.94	8.59	7.63
FSG 408DP	Allied Seed, L.L.C.	3.86	3.06	1.62	8.53	7.81
FSG 505	Allied Seed, L.L.C.	3.95	3.17	1.88	9.00	7.6
Garst 6400 HT	Garst Seed Co.	3.39	2.64	1.96	8.00	7.23
Genoa	Syngenta Seeds Inc.	4.41	3.23	2.00	9.65	7.66
GH-711	J.C. Robinson Co.	3.21	2.52	1.90	7.63	7.16
Goliath	Allied Seed, L.L.C.	3.38	2.90	1.94	8.23	7.25
HybriForce 420/Wet	Dairyland Seed Co.	3.72	2.72	1.88	8.31	7.5
Jade III	NC+ Hybrids	3.66	2.95	1.94	8.55	7.02
L-311	Legacy Seeds, Inc.	3.73	2.87	1.70	8.31	7.54
L-411 HD	Legacy Seeds, Inc.	3.36	2.59	2.09	8.04	7.46
LegenDairy 5.0	Croplan Genetics	3.73	3.02	2.03	8.78	7.49
Mountaineer 2.0	Croplan Genetics	3.73	2.98	1.87	8.58	7.46
WL 335 HQ	W-L Research	3.73	3.08	1.65	8.46	7.63
WL 357HQ	W-L Research	4.06	3.09	1.79	8.93	7.52
ZG 0347A	ABI Alfalfa, Inc.	3.63	2.65	1.80	8.08	7.28
ZG 0353A	ABI Alfalfa, Inc.	3.74	2.60	1.94	8.27	6.71
Average		3.72	2.90	1.90	8.52	7.48
CV%		12.90	12.66	12.58	6.93	6.44
LSD _(0.30)		0.35	0.27	0.18	0.44	0.36
LSD _(0.05)		0.68	0.52	0.34	0.83	NS

¹Trial conducted on the Agricultural Research, Development and Educational Center; seeded 8/30/04.

²Yields were calculated on an oven-dry basis.

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Irrigated Alfalfa Variety Performance Trial at Rocky Ford¹ in 2006

Entry/Variety	Brand/Source	1 st Cut	2 nd Cut	3 rd Cut	2006	2005	2004
		30-May	21-Jul	5-Sep	Total	Total	Total
		----- Tons/acre ² -----					
4M124	Croplan Genetics	2.63	2.75	2.55	7.93	8.10	7.13
DS311 Hyb	Dairyland Seed Co.	1.77	2.64	3.30	7.70	6.23	7.23
55H05	Pioneer Hi-Bred Int'l	2.38	2.94	2.39	7.70	8.41	6.96
Goliath	Allied Seed L.L.C.	2.60	2.86	2.24	7.70	7.16	6.85
Expedition	Syngenta Seeds	2.40	2.59	2.61	7.59	7.08	6.60
05073	Cal/West Seeds	2.60	2.47	2.22	7.28	6.93	6.88
Abundance	Sharp Bros. Seed Co.	1.96	2.65	2.66	7.27	7.18	6.97
Masterpiece	J.R. Simplot	2.37	2.39	2.50	7.26	6.01	7.37
FSG 406	Allied Seed L.L.C.	2.04	2.52	2.64	7.20	7.06	6.73
Rebel	Target Seed, L.L.C.	2.24	2.59	2.35	7.18	6.68	6.95
45098	Cal/West Seeds	2.11	2.69	2.37	7.17	7.01	7.39
15029	Cal/West Seeds	2.30	2.62	2.22	7.14	7.51	6.67
4M125	Syngenta Seeds	2.14	2.39	2.49	7.02	7.67	7.11
DS307 Hyb	Dairyland Seed Co.	2.31	2.36	2.33	6.99	7.73	7.11
Baralfa42IQ	Barenbrug USA	2.26	2.47	2.26	6.98	6.80	6.63
Rugged	Target Seed, L.L.C.	1.90	2.67	2.28	6.86	5.95	6.61
Arapaho	Dairyland Seed Co.	1.93	2.36	2.51	6.80	6.11	7.05
Reward II	PGI Alfalfa, Inc.	2.13	2.51	2.16	6.80	6.24	6.75
WL 327	W-L Research	2.03	2.50	2.24	6.76	6.50	7.25
Cimmarron VL400	Cimarron USA	2.28	2.12	2.33	6.72	6.92	7.52
6420	Garst Seed Co.	1.98	2.38	2.33	6.69	7.53	7.12
WL 357 HQ	W-L Research	1.85	2.55	2.29	6.68	6.88	6.46
Bullseye	Target Seed, L.L.C.	1.98	2.05	2.43	6.46	6.08	7.04
HybriForce-420/Wet	Dairyland Seed Co.	2.01	2.27	2.11	6.39	6.85	7.20
25035	Cal/West Seeds	1.83	2.38	2.07	6.28	7.05	6.13
Lahontan	USDA/NV	1.88	2.39	2.00	6.26	7.10	6.66
Evermore	Allied Seed L.L.C.	2.02	2.32	1.85	6.20	7.44	6.98
Baralfa53HR	Barenbrug USA	1.97	2.13	2.04	6.14	6.35	6.79
6530	Garst Seed Co.	1.72	2.10	2.24	6.06	6.32	7.23
FSG 505	Allied Seed L.L.C.	1.77	2.27	1.99	6.03	7.15	6.95
05009	Cal/West Seeds	1.77	2.15	2.06	5.99	7.04	6.90
DS304 Hyb	Dairyland Seed Co.	1.06	1.71	2.00	4.77	5.14	6.61
Average		2.07	2.43	2.31	6.81	6.88	6.93
LSD _(0.05)		NS	NS	0.44	NS	NS	0.49

¹Trial conducted at the Arkansas Valley Research Center.

²Yield is on air-dry basis.

Fertilizer application: 150 lb/acre of 11-52-0 on 11/11/04 and on 11/9/05.

Pursuit herbicide was applied in March 2005 and 2006 at 0.063 lb ai/acre.

Comment: There were four cuttings in 2004 and 2005 and three cuttings in 2006.

Statistical analyses on 3 year total yields will be completed soon and added to these results.