

Project Title: 2011 Intrastate Alfalfa Variety Evaluation - Dryland

Project Leader: Heather Mason

Project Personnel: Brooke Bohannon

Objective: To evaluate the yield performance of alfalfa varieties in a northwestern Montana dryland environment.

Results:

Nine alfalfa cultivars were planted at a rate of 5 lb/ac on May 9, 2008 in a randomized complete block design with four replications. The site was not irrigated and was further characterized as a 'dryland' site due to its sandy loam soil texture. Prior to planting, fertilizer at a rate of 44 lb N/ac, 104 lb P/ac, 120 lb K/ac and 20 lb S/ac was broadcast and incorporated.

In the spring of 2011, stands were well established. Two harvests were taken at full bloom stage of the alfalfa crop. Yields at first harvest (July 6, 2011) were slightly above average at 3.16 t/ac (dry matter basis) compared to the previous two years first harvest average at 2.95 t/ac. The second harvest (August 10, 2011) was below average at 1.51 t/ac compared to the previous two years second harvest average at 1.95 t/ac.

Since the start of this evaluation in 2008, none of the nine varieties tested have yielded statistically different from one another, and the same effect was observed in 2011.

Table 1. Stand and yield data from the dryland Intrastate Alfalfa Variety Evaluation, 2011.

Cultivar	MT-ID#	Stand % plot	Harv-1 t/ac	Harv-2 t/ac	2011**	2010	2009	2008*	2008-11	2008-11
					Total t/ac	Total t/ac	Total t/ac	Total t/ac	Total t/ac	% Mean
Rebound 5.0	MT-398	81	3.63	1.83	5.46	6.23	5.99	0.89	18.58	108
DKA43-13	MT-413	95	3.23	1.75	4.98	6.42	5.98	1.24	18.62	108
54V09	MT-414	70	2.88	1.39	4.27	5.19	5.61	0.97	16.05	93
FSG 229CR	MT-415	93	3.56	1.50	5.06	6.20	6.20	1.30	18.76	109
FSG 429SN	MT-416	80	3.04	1.55	4.59	5.38	5.72	0.99	16.67	97
FSG 408DP	MT-417	79	3.14	1.41	4.54	5.41	5.92	1.03	16.90	98
Ladak-65	MT-2	84	2.85	1.34	4.19	4.88	5.16	0.92	15.15	88
Melton	MT-338	84	3.29	1.58	4.88	5.99	6.18	1.04	18.09	105
Shaw	MT-328	75	2.85	1.28	4.13	5.49	5.54	1.12	16.28	94
mean			3.16	1.51	4.68	5.69	5.81	1.06	17.23	
LSD(0.05)			1.14	0.54	1.63	1.74	1.59	0.44	4.58	

* ,** denotes one harvest , two harvests, respectively