Project Title: 2009 Intrastate Alfalfa Variety Evaluation – Irrigated

Project Leader: Heather Mason

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Objectives: To evaluate the yield performance of alfalfa varieties in a northwestern Montana irrigated environment

Results:

Nine alfalfa cultivars were planted at a rate of 5 lb/a on May 9, 2008 in a randomized complete block design with four replications, and were grown under irrigated conditions. All harvests were taken at the full bloom stage of the alfalfa crop. Overall hay yield for the 2009 growing season was 5.54 t/a. Differences were observed among varieties at the first cutting (June 17, 2009) but no differences among varieties were observed for the second (August 5, 2009) or third haying (October 16, 2009) or for overall yield in 2008, 2009 or total yield. At the time of first cutting, Shaw had the highest hay yield and Ladak-65 had the lowest hay yield. This trend continued throughout the season, although the differences between varieties were not statistically significant.

Table 1. Stand and yield data from the irrigated Intrastate Alfalfa Variety Evaluation, 2009.

Variety	MT-ID#	Stand	Harv-1	Harv-2	Harv-3	2009 Total	2008 Total	Total 08-09
		% plot	*t/a*	*t/a*	*t/a*	*t/a*	*t/a*	*t/a*
Rebound 5.0	MT-398	98	2.48	1.81	1.11	5.39	2.58	7.97
DKA43-13	MT-413	91	2.38	1.92	1.10	5.40	2.26	7.66
54V09	MT-414	95	2.74	2.01	1.20	5.95	2.76	8.71
FSG 229CR	MT-415	98	2.54	1.89	1.08	5.51	2.98	8.49
FSG 429SN	MT-416	94	2.50	1.94	1.12	5.55	2.72	8.27
FSG 408DP	MT-417	98	2.50	1.74	1.11	5.35	2.89	8.24
Ladak-65	MT-2	88	2.31	1.81	0.87	5.00	2.50	7.50
Melton	MT-338	94	2.64	2	1.15	5.68	2.7	8.38
Shaw	MT-328	96	2.83	2.07	1.13	6.02	2.99	9.01
mean		94	2.55	1.90	1.10	5.54	2.71	8.25
P<F		ns	0.05	ns	ns	ns	ns	ns
LSD(0.05)		7.0	0.314	0.293	0.351	0.710	0.568	1.028