

Project Title: 2004 Intrastate Alfalfa Yield Trial – Dryland

Project Leader: Dennis Cash

Project Personnel: Louise Strang

Objectives: To evaluate the yield performance of alfalfa cultivars in a northwestern Montana dryland environment.

Results:

Thirteen alfalfa cultivars were planted 4/22/04 in a randomized complete block design with 4 replicates. Spring stands were adequate following a mild and dry winter. Over 4 inches of precipitation in April and May helped with early season growth and good first harvest yields, averaging 1.56 t/a. Hot, dry conditions in July resulted in meager regrowth, and second cutting mean yield was only 0.80 t/a.

Summary:

Fourth-year production ranged from 2.12 t/a ('DKA 33-16') to 2.65 t/a ('Ladak 65'). No new variety exceeded Ladak 65 in total 2005-2007 production.

The 2004 dry-land trial was terminated.

[See table on next page.]

2007 Summary of the 2004 DRYLAND INTRASTATE ALFALFA YIELD TRIAL

<u>Cultivar</u>	<u>Stand</u> <i>%plot</i>	<u>Harvest-1</u> <i>t/a</i>	<u>Harvest-2</u> <i>t/a</i>	2007	2006	2005	2005-07	<u>%</u> <u>Mean</u>
				<u>Total</u> <i>t/a</i>	<u>Total</u> <i>t/a</i>	<u>Total</u> <i>t/a</i>	<u>Total</u> <i>t/a</i>	
VL02	70	1.60	0.92	2.52	4.15	3.38	10.05	100
54Q25	74	1.47	0.84	2.31	4.53	3.47	10.31	103
Lightening Xtra	66	1.66	0.78	2.44	4.40	3.44	10.28	103
DKA 33-16	69	1.43	0.69	2.12	4.19	3.34	9.66	96
DKA 50-18	61	1.47	0.68	2.15	4.57	3.31	10.04	100
Boulder	55	1.50	0.85	2.35	4.27	3.22	9.83	98
Rebound 5.0	74	1.48	0.90	2.38	4.24	3.21	9.83	98
6400HT	71	1.53	0.70	2.22	4.17	3.58	9.98	100
MT-9321	63	1.78	0.78	2.56	4.14	3.37	10.07	101
MT-2003-1	66	1.45	0.71	2.16	4.29	3.22	9.67	96
Ladak 65	69	1.77	0.88	2.65	4.46	3.33	10.44	104
Shaw	79	1.60	0.62	2.23	4.44	3.27	9.93	99
Cooper	65	1.53	1.00	2.52	4.34	3.32	10.19	102
mean	68	1.56	0.80	2.36	4.32	3.34	10.02	
Pr>F	0.9745	0.00	0.0061	0.0067	0.8959	0.02	0.7975	
LSD(0.05)	NS	0.24	0.23	0.35	NS	0.029	NS	
CV(%mean)	31.0	10.6	19.9	10.3	9.0	0.3	16.7	

Planting date: 4/22/04

Harv-1: 6/12/07

Harv-2: 7/23/07

Fertilizer: 22 lbs N/a + 104 lbs P₂O₅/a - 4/15/05