

Project Title: 2004 Intrastate Alfalfa Yield Trial – Irrigated

Project Leader: Dennis Cash

Project Personnel: Louise Strang

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

Results:

Thirteen alfalfa cultivars were planted 4/23/04 in a randomized complete block design with 4 replicates. Spring stands were good 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 1.61 t/a. Hot, dry conditions in July required supplemental irrigation. Second cutting mean yield was 1.40 t/a.

Summary:

Fourth-year production ranged from 2.72 t/a ('Ladak 65') to 3.54 t/a ('Boulder'). There were no significant differences in 2007 yield. Total forage yield 2005-2007 ranged from 10.08 t/a for Ladak 65 to 11.76 t/a for Boulder.

The 2004 irrigated trial was terminated.

[See table on next page.]

2004 INTRASTATE ALFALFA YIELD TRIAL – Irrigated  
Kalispell, 2007

<u>Variety</u>	<u>MTNO</u>	<u>Stand</u> <i>%plot</i>	<u>Dry Matter Yield</u>		<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2005-07</u>	<u>%Mean</u>
			<u>Harv-1</u> <i>t/a</i>	<u>Harv-2</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>	<u>Total</u> <i>t/a</i>	
Ladak 65	2	74	1.49	1.23	2.72	3.87	3.49	10.08	93
Shaw	328	80	1.66	1.35	3.01	4.72	<b>3.74</b>	11.46	105
MT-9321	333	79	1.60	1.37	2.96	4.25	<b>3.62</b>	10.84	99
Cooper	335	<b>81</b>	1.55	1.34	2.89	4.04	<b>3.65</b>	10.58	97
VL02	392	<b>84</b>	1.65	1.38	3.02	4.65	<b>3.69</b>	11.36	104
54Q25	393	<b>88</b>	1.62	1.18	2.80	4.26	<b>3.59</b>	10.64	98
Lightening Xtra	394	<b>86</b>	1.62	1.36	2.98	4.38	<b>3.94</b>	11.30	104
DKA 33-16	395	<b>85</b>	1.60	<b>1.56</b>	3.16	4.29	3.45	10.89	100
DKA 50-18	396	<b>86</b>	1.59	1.44	3.04	4.20	<b>3.60</b>	10.83	99
Boulder	397	79	1.89	<b>1.65</b>	3.54	4.34	<b>3.89</b>	11.76	108
Rebound 5.0	398	<b>88</b>	1.60	<b>1.50</b>	3.09	4.17	3.41	10.67	98
6400HT	399	<b>86</b>	1.59	1.45	3.04	4.01	3.45	10.50	96
MT-2003-1	400	79	1.52	1.36	2.89	4.32	3.56	10.77	99
mean		83	1.61	1.40	3.01	4.27	3.62	10.90	
Pr>F		0.0112	0.8980	0.0125	0.2297	0.4231	0.3800	0.1647	
LSD(0.05)		8	NS	0.20	NS	NS	0.015	NS	
CV(%mean)		6.5	16.4	9.9	11.19	10.8	7.4	6.9	

Seeded 4/23/04

Harv-1: 6/13/07 -earlybl

Harv-2: 7/25/07 - fullbl

Fertilizer: 22 lbs N/a + 104 lbs P<sub>2</sub>O<sub>5</sub>/a - 4/15/05