

Project Title: 2006 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:

Seventeen alfalfa cultivars were planted 5/3/06 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 2.18 t/a. Hot, dry conditions in July resulted in meager regrowth, and second cutting mean yield was only 1.35 t/a. Post-frost regrowth yielded 0.97 t/a.

Summary:

Second-year production ranged from 3.80 t/a ('Genoa') to 5.15 t/a ('54Q25'). There were no significant differences among varieties in total 2007 production.

Future Plans:

This trial will remain in production through 2009.

[See table on next page.]

2007 Summary of the 2006 Dryland Intrastate Alfalfa Yield Trial

Cultivar	Kalispell						% Mean
		Std	H-1	H-2	H-3	2007	
	MTNO	%Occup	Yield t/a	Yield t/a	Yield t/a	Total t/a	
Ladak 65	2	54	1.97	1.47	1.18	4.62	102.80
Shaw	328	64	2.25	1.47	0.84	4.56	101.60
Melton	333	68	2.16	1.31	1.19	4.65	103.66
Cooper	335	80	2.34	1.31	1.11	4.76	106.07
54Q25	393	66	2.38	1.29	1.48	5.15	114.64
4R200	401	70	2.25	1.49	1.24	4.99	111.08
Ameristand 407TQ	402	53	1.84	1.21	1.14	4.20	93.47
DKA34-17RR	403	64	2.18	1.36	1.04	4.58	102.10
DKA41-18RR	404	69	2.19	1.32	1.02	4.52	100.69
Genoa	405	72	2.01	1.18	0.62	3.80	84.72
GrandStand	406	75	2.10	1.23	0.79	4.12	91.85
HB8300	407	61	2.32	1.41	0.69	4.42	98.38
HB8400	408	60	2.20	1.26	0.61	4.07	90.60
Impressive	409	81	2.22	1.47	0.87	4.56	101.60
Lariat	410	81	2.19	1.29	0.72	4.20	93.52
WL 343HQ	411	45	2.17	1.15	0.64	3.95	88.05
WL 355RR	412	66	2.31	1.46	1.06	4.83	107.60
Whitney	413	78	2.11	1.53	1.21	4.85	108.09
mean		67	2.18	1.35	0.97	4.49	
Pr>F		0.5368	0.8294	0.9949	0.0680	0.5264	
LSD(0.05)		NS	NS	NS	NS	NS	
CV(%mean)		30.9	15.1	30.1	35.45	16.67	

Planting date: 5/3/06

Fertilizer: 13 lbs N 62 lbs P₂O₅ /a preplant

Harvest-1 Harvest date: 6/12

Stage at harvest: earlybl

Harvest-2 Harvest date: 7/24/07

Stage at harvest: fullbl

Harvest-3 Harvest date: 9/23/07

Stage at harvest: fullbl