

PROJECT TITLE: 2004 DRYLAND INTRASTATE ALFALFA YIELD TRIAL

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OBJECTIVE: Compare yield potential of new releases and experimental lines with older, established cultivars under non-irrigated conditions.

METHODS: The trial was seeded on 4/22/04. Thirteen cultivars were seeded in 5-ft by 20-ft plots consisting of 7 rows spaced 6-inches apart. Seeding rate was 9 lbs/acre pure live seed, and seeding depth was 0.5 in. Mono-ammonium phosphate fertilizer (11-52-0) was applied preplant at a rate of 120 lbs/acre. Pursuit (3 oz./a) and Prowl (1.8 pt/a) were preplant incorporated for weed control. The experimental design was a randomized complete block with 13 cultivars and four replications.

Crop year precipitation was 21.88 inches. Average monthly temperatures were 43.9, 51.8, 55.3, 62.6, and 62.8 degrees F from April to August, respectively.

Forage yield harvest dates were 6/23, 8/2, and 9/28/05. Plots were harvested with a sickle-bar research plot swather. Harvest area was 100 ft². After recording the fresh harvest weight, a subsample of approximately 500 g was taken, weighed, dried at 60°C in a forced air oven for 48 to 72 h, and reweighed to determine DM content.

Analysis of variance was calculated by the ANOVA procedure of XLSTAT Ver.7.5 (2004). Critical value for a significant F-test was tested at P=0.05. Treatment effects were compared by protected LSD when the F test for treatment was significant.

RESULTS: The total yields for 2005 were statistically similar except for '6400HT' which produced the most forage.

A table summarizing the 2004 trials is presented on the next page.

2005 Summary of the
2004 DRYLAND INTRASTATE ALFALFA YIELD TRIAL

<u>Cultivar</u>	<u>Harvest-1</u>	<u>Harvest-2</u>	<u>Harvest-3</u>	<u>2005</u> <u>Total</u>	<u>%Mean</u>	<u>2004</u> <u>Total</u>
	<i>t/a</i>	<i>t/a</i>	<i>t/a</i>	<i>t/a</i>		<i>t/a</i>
6400HT	1.35	1.30	0.76	3.58	1.07	1.55
54Q25	1.19	1.42	0.86	3.47	1.04	1.72
Lightening Xtra	1.27	1.38	0.79	3.44	1.03	1.53
VL02	1.19	1.30	0.89	3.38	1.01	1.64
MT-9321	1.25	1.33	0.79	3.37	1.01	1.68
DKA 33-16	1.21	1.28	0.85	3.34	1.00	1.65
Ladak 65	1.21	1.31	0.81	3.33	1.00	1.80
Cooper	1.17	1.28	0.88	3.32	1.00	1.79
DKA 50-18	1.22	1.35	0.75	3.31	0.99	1.59
Shaw	1.32	1.26	0.69	3.27	0.98	1.75
Boulder	1.11	1.22	0.89	3.22	0.96	1.74
MT-2003-1	1.17	1.26	0.78	3.22	0.96	1.63
Rebound 5.0	1.26	1.28	0.67	3.21	0.96	1.48
mean	1.22	1.30	0.80	3.34		1.66
LSD(0.05)	NS	NS	NS	0.02		0.26
Pr>F	0.543	0.091	0.526	0.029		
CV(%mean)	10.0	1.1	15.7	0.3		

Planting date: 4/22/04

Harv-1: 6/23/05 - pbl

Harv-2: 8/2/05 - mbl

Harv-3: 9/27/05 - v

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