

ND 3902

ALFALFA VARIETY TRIAL – 1982

L. Manske and H. Goetz

An Alfalfa Variety Trial was seeded at the Dickinson Experiment Station in May 1979. A similar trial was seeded at the Hettinger Experiment Station and the Central Grasslands Research Station in May 1981. The trial was designed to evaluate the performance of the varieties on the basis of dry weight herbage production and compared to a standard variety (Vernal). Five pasture and sixteen dry land hay type alfalfa varieties were included in the Dickinson Station trial. Six pasture and twenty-one dry land hay type varieties were seeded at the Hettinger Station and the Central Grasslands Research Station.

The dry weight above ground herbage production and the percentage of production of Vernal at the Dickinson Experiment Station, the Hettinger Experiment Station and the Central Grasslands Research Station are shown in Table 1. One cutting was taken at the Dickinson and Hettinger Experiment Stations. Two cuttings were taken at the Central Grasslands Research Station.

The five highest producing varieties at the Dickinson Experiment Station were Kane, Spredor II, Norseman, Travois, and Rangelander with 6139, 5260, 5210, 5077 and 4981 pounds of herbage production per acre respectively. At the Hettinger Experiment Station, the five highest producing varieties were Prowler, Travois, Spredor II, Nuggett and Iroquois with 5244, 5191, 4986, 4790 and 4782 pounds of herbage production per acre respectively. Rangelander, Drylander, Baker, Nuggett, and Polar II were the five highest producing varieties at the Central Grasslands Research Station for the first cutting with 6444, 6277, 5980, 5798 and 5587 pounds of herbage production per acre respectively.

The mean herbage production for the pasture type alfalfa varieties was greater at the Dickinson Experiment Station, the Hettinger Experiment Station and the first cutting and the total of two cuttings at the Central Grasslands Research Station than the mean herbage production for the dry land hay type alfalfas (Table 2). The mean herbage production was greater for the hay type varieties for the second cutting at the Central Grasslands Research Station.

Alfalfa varieties are often separated into categories based on their adaptability to survive the winter. The alfalfa varieties in these trials have been separated into three winter hardy categories. These categories are: very winter hardy, winter hardy, and moderately winter hardy. The mean herbage production for the very winter hardy varieties was greatest at the Dickinson Experiment Station, the Hettinger Experiment Station and for the first cutting at the Central Grasslands Experiment Station (Table 3). The moderately winter hardy alfalfa varieties had the greatest mean herbage production for the second cutting and for the total of the two cuttings at the Central Grasslands Research Station.

Table 1. ALFALFA VARIETY ADAPTATION TRIAL – 1982

Variety	Dickinson Clip-2 July		Hettinger Clip-7 July		Central Grasslands Station					
	Total Lbs/Acre	% Vernal	Total Lbs/Acre	% Vernal	Clip-30 June		Clip-30 August		Total Lbs/Acre	% Vernal
					Lbs/ Acre	% Vernal	Lbs/ Acre	% Vernal		
Agate	3832	86	3908	104	5302	105	3644	114	8946	108
Anik	4563	103								
A S – 67			3923	104	4329	86	4041	126	8370	101
Baker	4011	91	4550	121	5980	118	3207	100	9187	111
D – 111	3944	89	3999	106	4541	90	3613	113	8154	99
Drylander			4604	122	6277	124	3105	97	9382	114
Futura			4752	126	5207	103	3427	107	8634	105
Iroquois	4794	108	4782	127	4676	93	2873	90	7549	91
Kane	6139	139	3644	97	5132	102	3023	95	8155	99
Ladak	4796	108								
Ladak-65	4785	108	4469	119	4995	99	3290	103	8285	100
Magnum			4507	120	5349	106	3567	112	8916	108
Norseman	5210	118	4406	117	3840	76	3528	110	7386	90
Nuggett	4558	103	4790	127	5798	115	3118	98	8916	108
Perry			4478	119	5053	100	3479	109	8532	103
Polar I	4695	106	4603	122	4793	95	3423	107	8216	100
Polar II			4016	107	5587	111	3764	118	9351	113
Prowler			5244	139	5231	104	2955	92	8186	99
Ramsey	4804	108	4027	107	4427	88	3000	94	7427	90
Rangelander	4981	112	4184	111	6444	128	4034	126	10478	127
Ranger	4455	101	4298	114	4322	86	3542	111	7864	95
Spredor II	5260	119	4986	132	5304	104	3071	96	8375	102
Thor	4158	94	4015	107	4867	96	3202	100	8069	98
Travois	5077	115	5191	138	4482	89	3237	102	7719	94
Trek	4282	97	4162	110	3899	77	2781	87	6680	81
Vernal	4425	100	3768	100	5054	100	3197	100	8251	100
520	4274	96	4512	120	5559	110	3761	118	9320	113
524	4121	93	4440	118	4612	91	3611	113	8223	100
532			3832	102	4650	92	3563	111	8213	100

Table 2. Mean Herbage Production (Lbs. /Acre) for the Pasture and Dry Land Hay Type Alfalfa Varieties – 1982

Location		Pasture Type	Hay Type
Dickinson Experiment Station		5364	4453
Hettinger Experiment Station		4642	4297
Central Grasslands Research Station	1st cutting	5478	4897
	2 nd cutting	3238	3411
	Total of two cuttings	8716	8309

Table 3. Mean Herbage Production (Lbs. /Acre) for the Alfalfa Varieties in Three Winter Hardy Categories – 1982

Location		Very Winter Hardy	Winter Hardy	Moderately Winter Hardy
Dickinson Experiment Station		5104	4348	4158
Hettinger Experiment Station		4536	4366	4174
Central Grasslands Research Station	1 st cutting	5142	4968	4998
	2 nd cutting	3247	3349	3594
	Total of two cuttings	8389	8317	8592