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WASHOE ALFALFA

FOR
SOUTHERN IDAHO

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Washoe, a new alfalfa variety resistant to bacterial wilt, stem nematodes and pea aphids, has recently been released and recommended for use in some areas of southern Idaho. It is especially recommended for irrigated areas where these factors make it difficult to establish and maintain alfalfa stands and to produce good yields of hay. Washoe is superior to Lahontan in a number of characteristics.

Development

Washoe was developed by cooperative efforts of State and Federal agencies at the University of Nevada. It is a synthetic variety formed from eight plants derived chiefly from the variety Nemastan. In its breeding, emphasis was placed on selection of parental plants that were resistant to the pea aphid. Resistance to spotted alfalfa aphids, stem nematodes and bacterial wilt was also obtained in the plants selected as parents.

Prior to release, Washoe was tested extensively in many states as Nevada Syn T. Seed was released for increase in 1966. States sharing in the release of Washoe are Nevada, Idaho, Arizona, California and Oregon. Breeders seed will be maintained by the University of Nevada at Reno. Sufficient seed to supply demand should be available in 1967.

Plant Characteristics

Washoe is a predominantly purple-flowered variety with upright type of plant growth. It is comparable to Lahontan in uniformity and fall dormancy but slightly slower in recovery after cutting and in spring growth.

Forage Yields

In variety trials in the Western states, Washoe was superior to Lahontan at most locations under a three-cutting schedule. Largest advantage over Lahontan was in yields at first cutting.

In Idaho, Washoe was included in tests at Parma and Twin Falls for a total of 11 crop years. Yields of Washoe, Lahontan and DuPuits, expressed as percentage of Ranger, are presented in Tables 1 and 2.

In three years of testing at Parma, Washoe produced more forage than Ranger and Lahontan but was inferior to DuPuits. Its relative performance in comparison to the other varieties was fairly consistent all cuttings and years.

Washoe was included in three tests at Twin Falls and yielded 98 percent of Ranger compared to 88 and 91 for DuPuits and Lahontan respectively. At nearly every harvest and especially at first cutting, Washoe was better than Lahontan.

Washoe yielded less forage than DuPuits during the first two years of a stand but differences were not great. It exceeded DuPuits when stands were maintained longer than two years. Stands of Washoe remained good for the duration of the tests whereas stands of DuPuits usually declined rapidly due to bacterial wilt after two or three years of hay production.

Table 1. Forage yields of alfalfa varieties grown at Parma, Idaho. 1962-1964.

Year	Cutting	Forage yields			
		Ranger Tons/acre	DuPuits Percent of Ranger	Lahontan	Washoe
1962*	1st	1.21	118	100	108
	2nd	1.49	133	100	116
	Total	2.70	126	100	113
1963	1st	3.09	112	92	99
	2nd	2.03	115	99	104
	3rd	2.27	108	99	100
	Total	7.39	112	95	101
1964	1st	2.56	98	93	103
	2nd	1.97	111	91	95
	3rd	1.26	104	94	102
	Total	5.79	104	93	100
1962-64	Total	15.88	111	95	103

*Year of seeding

Table 2. Average forage yields of alfalfa varieties grown in three tests at Twin Falls. 1962-1966.

Year of production	Cutting	Forage yields			
		Ranger Tons/acre	DuPuits Percent of Ranger	Lahontan Percent of Ranger	Washoe Percent of Ranger
1st	1st	2.85	105	84	90
	2nd	2.29	101	94	95
	3rd	1.80	104	95	96
	Total	6.97	103	89	93
2nd	1st	2.84	99	83	102
	2nd	2.14	98	102	103
	3rd	1.60	98	100	102
	Total	6.58	98	94	102
3rd	1st	2.76	86	89	102
	2nd	2.32	67	93	100
	3rd	1.32	73	94	99
	Total	5.74	76	91	101
4th	1st	3.12	47	83	104
	2nd	2.46	42	88	93
	3rd	—	—	—	—
	Total	5.58	46	88	100
Average of all years	1st	2.86	91	85	98
	2nd	2.28	84	95	98
	3rd	1.65	97	97	99
	Total	6.39*	88	91	98

*Discrepancy between this figure and sum of average yields for three cuttings is due to lack of data for third cutting in two tests.

Other Observations

Alfalfa varieties grown at Parma were examined by Dr. Norman Waters, Assistant Entomologist, University of Idaho. Counts were made of pea aphids on 60 stems of each variety at two dates. The number of aphids found on Washoe was relatively small on both dates when compared to DuPuits, Lahontan and Ranger.

Striking differences between varieties in reaction to foliar diseases were observed by Paul J. Torell, Associate Agronomist, at Parma and at Twin Falls in 1963. Dupuits showed the most resistance and Lahontan appeared very susceptible, showing a high proportion of leaf yellowing and leaf drop. Ranger and Washoe were intermediate, showing slightly less leaf drop than Lahontan.