Registration of Crop Cultivars

REGISTRATION OF LEW ALFALFA1
(Reg. No. 96)
M. H. Schonhorst1, R. K. Thompson2, R. B. Hine3, F. A. Gray3,
H.W. Reynolds3, and W.W. Carter4

'Lew' alfalfa (Medicago sativa L.) was developed and tested cooperatively by the Plant Sciences and Plant Pathology Dep. of the Univ. of Arizona. It was tested experimentally as AZ SNR.

Lew alfalfa was developed by two cycles of phenotypic selection and testing of non-winter-dormant alfalfa (Medicago sativa L.) plants whose background trace to the 'African' and 'Indian' sources used extensively in the Arizona alfalfa improvement program. Criteria used for selection included: (a) freedom of symptoms of infestation by the stem nematode [Ditylenchus dipsaci (Kuhn) Filipjev] when grown under high field populations of this pest and (b) desirable agronomic traits, such as erect stems, leafiness, and dark green foliage. Approximately 100 plants which were completely free of visible symptoms of nematode infection in the second cycle of selection were used as parents of Lew.

Lew is non-winter-dormant and adapted to the environment of the low desert valley areas of southern Arizona. A distinctive feature of Lew is its high level of resistance to the Arizona strain of the stem nematode. When grown in areas free of the stem nematode on the Univ. of Arizona Mesa Research Station, Lew yielded only slightly more forage than either 'Hayden' or 'Sonora-70'; however, when grown in soils heavily infested with stem nematode on this station, Lew out-yielded these cultivars by 30 and 85%, respectively. Lew is also superior to Hayden and Sonora-70 in level of resistance to the Ent-H biotype of the spotted alfalfa aphid, Therioaphis maculata (Buckton), and amount of nodulation induced by commercial cultures and indigenous strains of nitrifying bacteria, Rhizobium meliloti, and in seed production.

Breeder's seed of Lew will be maintained by the Plant Sciences Dep. of the Univ. of Arizona and the Arizona Agric. Exp. Stn. Increases beyond Breeder's seed will be limited to Foundation and Certified seed. Eligibility of a stand to produce a given certified class of seed will be limited to 4 years. Only certified seed of this cultivar may be called Lew. The area of seed production will be limited to the western part of the Southern Alfalfa Region; south of 37°N Lat at elevations below 2,500 feet.

Lew received favorable review by the National Certified Alfalfa Variety Review Board in 1974.


Professor and research associate, Plant Sciences Dep. and professor, Plant Pathology Dep., Univ. of Arizona, Tucson, AZ 85721.

3 Associate plant pathologist, Div. of plant sciences, Univ. of Wyoming, Laramie, WY 82071.

4 Nematologist (retired), AR-SEA-USDA, Cotton Research Center, Phoenix, AZ.

5 Research plant pathologist, Market Quality Research Lab., AR-SEA-USDA Weslaco, TX 78596.

REGISTRATION OF PERRY ALFALFA1
(Reg. No. 97)
W. R. Kehr, G. R. Manglitz, and R. L. Ogden1

Perry (Medicago sativa L.) was developed by open-pollination at AR-SEA-USDA, Weslaco, TX 78596. Perry was released jointly with Kansas, South Dakota, Nebraska, Wyoming, North Dakota, and California. Perry has greater resistance to the alfalfa aphid, Acyrthosiphon pisum (Harris), and bacterial leaf blight (locale by Corynebacterium insidiosum (McCull)) than 'Hayden'; it is resistant to potato leafhopper yelIowing (Empoasca fabae (Harris)), similar to that of Vernal; and to brown spot caused by Ditylenchus dipsaci Filipjev, similar to that of Dawson. Perry is a winter-hardy cultivar. It has resistance to bacterial wilt, (caused by Corynebacterium insidiosum (McCull.) Haselton), potato leafhopper yelIowing, (Empoasca fabae (Harris)), and potato leaf blight, (caused by Corynebacterium insidiosum (McCull.) Haselton).

Perry was favorably reviewed by the National Certified Alfalfa Variety Review Board in December 1979. Application will be made for variety protection under the certification provision.

1 Registered by the Crop Sci. Soc. of Am. Contributions from Cooperative investigations by the Nebraska Agric. Exp. Stn. AR-SEA-USDA. Published with the approval of the Director as Paper No. 5983, Journal Series, Nebraska Agric. Exp. Stn. Research was conducted under Project Numbers 12-005, 17-005, and 27-007. Accepted 12 Jan. 1981.

2 Research agronomist, AR-SEA-USDA, and professor of agronomy; research entomologist, AR-SEA-USDA, and professor of entomology; research entomologist, AR-SEA-USDA, and professor of entomology; research entomologist, AR-SEA-USDA, and professor of entomology.