Registration of Crop Cultivars

REGISTRATION OF RINCON ALFALFA1
(Reg. No. 90)

Bill Melton, John Arledge, and Don Miller2

'RINCON' alfalfa (Medicago sativa L.) was developed by personnel at the New Mexico Agricultural Experiment Station and released in March 1975. Rincon was tested under the experimental designation N.M. 37-1.

Rincon is a five-clone synthetic cultivar developed from 'El Unico' and 'Mesa Sirsa' parentage. Parent clones were selected by phenotypic recurrent selection for tolerance to lygus (Lygus hesperus Knight), and seed production; and by genotypic recurrent selection for tolerance to lygus, resistance to the pea aphid (Acrystosiphon pisum Harris), spotted alfalfa aphid (Therioaphis maculata Buckton), Fusarium wilt (initiated by Fusarium oxysporum f. medicaginis (Weimer) Snyder and Hansen), bacterial wilt (initiated by Corynebacterium insidium (Jens.), and high forage and seed yield.

Rincon is a non-dormant cultivar. Its level of resistance to pea aphid and spotted alfalfa aphid biotypes found in southern New Mexico is similar to the resistant cultivar 'Mesilla'. Rincon has a level of resistance to Fusarium wilt similar to the highly resistant cultivar 'Mosap 69'. Rincon has a low level of resistance to bacterial wilt similar to 'Ranger'. Rincon is moderately resistant to downy mildew (caused by Peronospora trifoliorum deBary). Rincon is susceptible to anthracnose (caused by Colletotrichum trifolii Bain) and Phytophthora root rot (caused by Phytophthora megasperma Drechs.). Reaction to stem nematode (Ditylenchus dipsaci (Kuhn) Filipijev) is unknown. In tests in southern New Mexico, forage yields of Rincon were equal to or superior to 'Zia', 'Mesilla', 'WL 512', and El Unico. Seed yields in New Mexico were significantly higher than either Mesilla or Zia in three tests over six growing seasons. During seed production, Rincon showed less damage from lygus when compared to Zia or Mesilla. This resulted in increased amounts of bloom. Flower color is a uniform mid-purple. The primary usage is for hay production in southern New Mexico in short term (3 to 5 year) rotation situations.

Parent clones and breeders seed will be maintained by the New Mexico Agricultural Experiment Station. Seed increase will be on a four-generation basis. Foundation, registered, and certified seed will be grown under the rules and regulations of the New Mexico Crop Improvement Association, New Mexico State University, Las Cruces, New Mexico, 88003.

Rincon was favorably reviewed by the National Certified Alfalfa Variety Review Board in December 1978. Application will not be made for Plant Variety Protection.

1 Registered by the Crop Sci. Soc. Am. Accepted 11 July 1979.
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REGISTRATION OF HERB BARLEY1
(Reg. No. 164)

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'HERB' barley (Hordeum vulgare L.). CI 15814, was selected in 1968 as a single plant selection from a composite cross developed by the AR, SEA, USDA in which 18 winter barley cultivars were crossed utilizing genetic male sterility. The composite had been grown in bulk at several dryland locations in California since 1958. Early testing and screening of Herb was done on the Herb Mattson farm near Pine Bluffs, Wyo. under the number WY 6823.

Herb is a medium-tall winter barley with good straw strength. Under Wyoming, New Mexico, and Arizona conditions, it is generally resistant to 'Kelby' and 'Dicktoo'. Herb is comparable to them in winter survival; however, it tillers better in the spring, resulting in improvedstands. Herb is moderately susceptible to Ustilago hordei (Pers.) Lagerh and is intermediate in test weight.

Herb yielded more than Kearney and Dicktoo and slightly more than 'Nebad' at most test locations in Wyoming. At Sheridan, Wyo., Herb averaged 6 to 7 q/ha more than Dicktoo and Kearney, respectively, over a 4-year period. At Gillette and Archer, Wyo., where winterkilling is generally more severe than at Sheridan, yield differences were not as pronounced. Herb yielded Kearney and Dicktoo by 13 q/ha at Pine Bluffs and 5 q/ha at Albin, Wyo., on dryland, and 4 q/ha at Laramie, Wyo., under irrigation.

Herb is a six-rowed feed barley with long, semi-smooth awns, long rachilla hairs, and numerous hairs on the rachis. The