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 (Acyrthosiphon pisum Harris), spotted alfalfa aphid (Theroaophis maculata Buckton), Fusarium wilt (incited by Fusarium oxysporum f. medicaginis (Weimer) Snyder and Hansen), bacterial wilt (incited by Corynebacterium insidiosum (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 'Moapa 69'. Rincon has a low level of resistance to bacterial wilt similar to 'Ranger'. Rincon is moderately resistant to downy mildew (caused by Peronospora trifolii deBary). Rincon is susceptible to anthracnose (caused by Colletotrichum trifolii Bain) and Phythophthora root rot (caused by Phytophthora megasperma Drechs.). Reaction to stem nematode (Ditylenchus dipsaci (Kuhn) Filipjiv) 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.

REGISTRATION OF PRATO BARLEY1
(Reg. No. 164)

K. E. Bohenblust and B. J. Kolp2

'HERB' barley (Hordeum vulgare L.), CI L. 3091/3, was developed in 1968 as a single plant selection from a cross made by the AR, SEA, USDA in which 18 wheat cultivars were crossed utilizing genetic male sterility. Parental material had been grown in bulk at several dryland locations in Wyoming since 1958. Early testing and screening work 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 drought resistance. Under Wyoming dryland conditions, it can be planted direct. Although slightly later maturing than 'Kearney' and 'Dicktoo', Herb is comparable to them in winter survivorship and tillers better in the spring, resulting in improved yield. Herb is moderately susceptible to Ustilago hordei (Opening) and Diplodia species in test weight.

Herb yielded more than 'Kearney' and 'Dicktoo' in 1976 and 1977. 'Dicktoo' is intermediate in test weight. Herb was grown in large area plots at Pine Bluffs, Wyo., under irrigation.

1 Registered by the Crop Sci. Soc. Am. Published with the approval of the Director of the Wyoming Agric. Exp. Stn. as Research Paper No. JA1001. Accepted 22 June 1979.

2 Professor of agronomy, New Mexico State Univ., Las Cruces NM 88003; assistant professor of agronomy, New Mexico State Univ., Southeastern Branch Stn., Artesia, NM 88210; and research assistant, Dep. of Agronomy, New Mexico State Univ., Las Cruces, NM 88003.

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 (Acyrthosiphon pisum Harris), spotted alfalfa aphid (Theroaophis maculata Buckton), Fusarium wilt (incited by Fusarium oxysporum f. medicaginis (Weimer) Snyder and Hansen), bacterial wilt (incited by Corynebacterium insidiosum (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 'Moapa 69'. Rincon has a low level of resistance to bacterial wilt similar to 'Ranger'. Rincon is moderately resistant to downy mildew (caused by Peronospora trifolii deBary). Rincon is susceptible to anthracnose (caused by Colletotrichum trifolii Bain) and Phythophthora root rot (caused by Phytophthora megasperma Drechs.). Reaction to stem nematode (Ditylenchus dipsaci (Kuhn) Filipjiv) 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.

REGISTRATION OF PRATO BARLEY1
(Reg. No. 164)

K. E. Bohenblust and B. J. Kolp2

'HERB' barley (Hordeum vulgare L.), CI L. 3091/3, was developed in 1968 as a single plant selection from a cross made by the AR, SEA, USDA in which 18 wheat cultivars were crossed utilizing genetic male sterility. Parental material had been grown in bulk at several dryland locations in Wyoming since 1958. Early testing and screening work 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 drought resistance. Under Wyoming dryland conditions, it can be planted direct. Although slightly later maturing than 'Kearney' and 'Dicktoo', Herb is comparable to them in winter survivorship and tillers better in the spring, resulting in improved yield. Herb is moderately susceptible to Ustilago hordei (Opening) and Diplodia species in test weight.

Herb yielded more than 'Kearney' and 'Dicktoo' in 1976 and 1977. 'Dicktoo' is intermediate in test weight. Herb was grown in large area plots at Pine Bluffs, Wyo., under irrigation.

1 Registered by the Crop Sci. Soc. Am. Published with the approval of the Director of the Wyoming Agric. Exp. Stn. as Research Paper No. JA1001. Accepted 22 June 1979.

2 Professor of agronomy, New Mexico State Univ., Las Cruces NM 88003; assistant professor of agronomy, New Mexico State Univ., Southeastern Branch Stn., Artesia, NM 88210; and research assistant, Dep. of Agronomy, New Mexico State Univ., Las Cruces, NM 88003.