REGISTRATION OF ANCHOR ALFALFA1
(Reg. No. 59)

J. R. Thomas and J. B. Moutray

ANCHOR alfalfa (Medicago sativa L.) is a Flemish-type cultivar developed by W. R. Grace and Company, Rudy-Patrick Seed Division, now the Rudy-Patrick Company5. Anchor is a nine-clone synthetic tested experimentally as R.P. 38. Parent clones were selected following extensive progeny testing for bacterial wilt [Corynebacterium insidiosum (McCull) H. L. Jens.] and pea aphid [Acyrthosiphon pisum (Harris)] resistance, seedling vigor, forage yield, seed yield, leaf and stem disease resistance, hardiness, fall-growth vigor, and tolerance to yellowing caused by the potato leafhopper [Empoasca fabae (Harris)]. Origin of the nine parent clones is as follows: one clone was selected directly from each of the varieties 'Apex,' 'Alfa,' and 'Saranac' while three clones trace back to 'DuPuits' and three to Alfa that had gone through two cycles of recurrent selection for bacterial wilt resistance.

Anchor is more winter hardy than Apex and Saranac and approaches the winter hardiness of 'Vernal.' Bacterial wilt resistance is equal to that of Saranac and Vernal. Anchor has excellent resistance to downy mildew (Peronospora trifoliorum d By.), moderate resistance to the pea aphid, and more tolerance to potato leafhopper yellowing than DuPuits or Apex. Flowers of Anchor are mostly light to dark purple with very few variegated.

Anchor is adapted to the same areas as other Flemish types including the Central and Northern Corn Belt, Northeastern States, and eastern Canada. Because of its improved winter hardiness and bacterial wilt resistance, Anchor is expected to perform well in both short- and long-term stands. Anchor has consistently yielded higher than Vernal throughout its area of adaptation and has shown rapid recovery after each cutting during the growing season.

Breeder seed was produced in an isolated planting of approximately 900 replicates of each of the nine parent clones at Caldwell, Ida. Foundation seed will be produced only from breeder seed in the Pacific Northwest and certified seed may be produced only from fields established from breeder or foundation seed. No other class or stock of seed is recognized as Anchor.

Anchor was favorably reviewed by the National Certified Alfalfa Variety Review Board at its December 1971 meeting. An application for plant variety protection has been filed.

--Research Agronomist and Vice President - Research Director, The Rudy-Patrick Company, respectively, Ames, Iowa 50010.

1 Registered by the Crop Science Society of America. Received Dec. 6, 1972.
2 Vice President - Research Director and Research Agronomist, The Rudy-Patrick Company, respectively, Ames, Iowa 50010.
3 The breeders who developed 'Anchor' were R. R. Kalton, D. E. Brown, and Marvin Miller.

REGISTRATION OF APEX ALFALFA1
(Reg. No. 60)

J. B. Moutray and J. R. Thomas

APEX alfalfa (Medicago sativa L.) is a Flemish-type cultivar developed by W. R. Grace and Company, Rudy-Patrick Seed Division, now the Rudy-Patrick Company5. Apex is slightly more resistant to bacterial wilt than Vernal. Apex has shown good winter survival in the North Central States and eastern Canada compared with other Flemish-types. Apex has equal resistance to the pea aphid and is superior to most other varieties in this trait. Flowers of Apex are predominantly purple.

Apex is adapted to the same areas as other Flemish varieties including the Central and Northern Corn Belt, Northeastern States and eastern Canada and the Pacific Northwest. Apex performance has been good under intensive management in short to medium rotations in these areas. Apex also yielded as well or better than other Flemish types throughout its area of adaptation. Apex exhibits high seedling vigor, rapid spring growth and excellent regrowth during all cuttings.

Breeder seed was produced in an isolated planting of 1,000 replicates of each of the 10 parental clones at Caldwell, Ida. Foundation seed will be produced only in the Pacific Northwest. Certified seed may be produced only with breeder or foundation seed. No other class or stock of seed is recognized as Apex.

Apex was favorably reviewed by the National Certified Alfalfa Variety Review Board at its December 1965 meeting.

--Research Agronomist and Vice President - Research Director, The Rudy-Patrick Company, respectively, Ames, Iowa 50010.

1 Registered by the Crop Science Society of America. Received Dec. 6, 1972.
2 Vice President - Research Director and Research Agronomist, The Rudy-Patrick Company, respectively, Ames, Iowa 50010.
3 The breeders who developed 'Apex' were C. E. Brown, R. R. Kalton, and J. R. Thomas.

REGISTRATION OF TITAN ALFALFA1
(Reg. No. 61)

J. B. Moutray and J. R. Thomas

TITAN alfalfa (Medicago sativa L.) is a winter-hardy cultivar developed by W. R. Grace and Company, Rudy-Patrick Seed Division, now the Rudy-Patrick Company5. Titan is an 11-clone synthetic tested experimentally as R.P. 25. Ten of the parent clones were selected on the basis of extensive progeny testing for bacterial wilt resistance to bacterial wilt [Corynebacterium insidiosum (McCull) H. L. Jens.], freedom from leaf and stem diseases, and high yield. The 11th clone is from our recurrent selection program. All clones were selected directly from each of the nine parent clones at Caldwell, Ida. Foundation seed will be produced only from breeder or foundation seed. No other class or stock of seed is recognized as Titan.

Titan is slightly more winter hardy and bacterial wilt resistant than Vernal. Compared with Vernal, Titan has high seedling vigor and fall regrowth. Titan also shows some tolerance to the potato leafhopper [Acyrthosiphon pisum (Harris)], and pea aphid [Corynebacterium insidiosum (McCull) H. L. Jens.]. Freedom from leaf and stem diseases, and high yield are other desirable traits. Titan also has shown good winter survival in the North Central States and eastern Canada compared with other Flemish-types. Titan has good performance under intensive management in short to medium rotations in these areas. Titan has yielded as well or better than other Flemish types throughout its area of adaptation. Flowers of Titan range in color from purple to bluish purple.

Titan is adapted to alfalfa-growing areas where high levels of fertility are maintained, e.g., North Central, Northeastern, Pacific Northwest and eastern Canada. Titan has produced high yields of forage with good seedling vigor, rapid spring growth and excellent regrowth during all cuttings.