Registration of Crop Cultivars

REGISTRATION OF A-24 ALFALFA¹
(Reg. No. 40)

Edgar H. Beyer and J. L. Allison²

'A-24' alfalfa (Medicago sativa L.) was developed by the Farm Seed Research Corporation and is being marketed by the Embro Seed Co., Inc., St. Louis, Missouri. A-24, experimentally designated as FSRC A-2, is adapted to the hay producing areas of central United States for use in short rotations.

A-24 was derived from 40 plants selected from established fields in Kansas and California in 1957. Open-pollinated seed was collected from 10 clones in each of four cultivars: 'Socheville,' 'Alfa,' 'DuPuits,' and 'Buffalo.' Twelve of the most vigorous seedlings were selected from each of the 40 lots of open-pollinated seed. These selections were planted at random in an isolation block near Bakersfield, Calif. Seed bulked from this isolation constitutes breeder seed stocks.

Forage yields of A-24 in company tests conducted in Illinois and in experiment station tests in Illinois (1960-1965) and Missouri (1961-1965) show A-24 to compare favorable with DuPuits. Acceptable seed yields have been obtained in California.

A-24 is similar to DuPuits in foliar diseases, leafhopper yellowing, and flower color. It blooms as early or earlier than DuPuits and stems are slightly finer than those of DuPuits.

Seed production of A-24 is on a four-generation basis: breeder, foundation, registered, and certified. Breeder seed is maintained by Farm Seed Research Corp., and consists of seed harvested from the original isolation of 480 seedlings in Bakersfield. Breeder seed has been released for production of foundation seed. Foundation seed is used for production of registered or certified seed. Certified seed fields are established with foundation seed, except in an emergency when registered seed will be used. Foundation and registered seed are produced in Kansas.

A-24 was reviewed by the National Certified Alfalfa Variety Review Board in 1967 and received favorable consideration.

¹ Registered by the Crop Science Society of America. Received July 1, 1969.
² Director of Research, Farm Seed Research Corp., and former Director now Agricultural Specialist, Ferry-Morse Seed Co.

REGISTRATION OF TAMU-ERA BARLEY¹
(Reg. No. 113)

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'TAMU-ERA' barley, (Hordeum vulgare L. emend Lam.) CI 11666, was developed at the Texas A&M University Agricultural Research Station at Denton. TAMU-Era is a selection from the cross 'Texan' (CI 6499) × 'Ludwig' (CI 7525). The cross was made in 1951 and the plants were grown in bulk populations for six generations. Head selections were made from the bulk population and seeded in head rows in 1958. Selection Tx 46-58-55 was selected from the head rows and tested in the insectary for its reaction to the greenbug (Schizaphis graminium Rond.) and found to be resistant. Progeny increases from 1000 head rows in 1965 constituted the breeder seed in 1966. The foundation increase was grown in 1968. The Texas Research Centers and Field Stations cooperated in the agronomic evaluations.

TAMU-Era is a six rowed, smooth-awned, early-heading, semi-winter variety. Juvenile plant growth is semi-prostrate with medium wide, twisted leaves. The leaves are slightly wider and with more erect growth than 'Cordova.' The green basal leaf sheaths are without hairs, and the auricles are white. TAMU-Era has medium stiff straw of average height, with long lax heads nodding at maturity. The kernels are blue, mid long, and the hulls are wrinkled. The rachilla is short haired.

TAMU-Era is susceptible to mildew and leaf rust. Regional disease data show that TAMU-Era is resistant to loose smut and has considerable tolerance to spot blotch and scald. At Denton for a 5-year period, the yield advantage of TAMU-Era over Cordova, 'Will' and 'Rogers' was 4, 7, and 16%, respectively.

TAMU-Era was released to registered and certified seed growers in 1968. TAMU-Era is well adapted to Central and North Central parts of Texas. Foundation seed will be maintained by the Foundation Seed Section, Texas A&M University, College Station, Texas 77843.

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