Registration of Crop Cultivars

REGISTRATION OF SUSSEX BARLEY

'SUSSEX', PI 471914, barley (Hordeum vulgare L.) (Reg. no. 189) was developed by the Virginia Agricultural Experiment Station and released in 1982. It was selected from a group of crosses made for the purpose of incorporating resistance to barley yellow dwarf virus (BYDV) into types adapted to Virginia conditions. The crosses were as follows: C. I. 9623/'Rapidan', C. I. 9658/'Hanover', BYDV resistant 'Atlas'/Rapidan, and C. I. 9708/Rapidan. Seed from these crosses was composited in the F2 generation and grown as a population from which selection for resistance to BYDV was the main objective. The selection which became Sussex was made in the F4 generation and was evaluated under the experimental designation Va. 75-42-55.

During the period of 1979 through 1982, Sussex was evaluated in 53 trials of the Uniform Semihardy Barley Nursery grown in the Southeast. In these trials, it yielded 11% more than 'Barsoy' and 7% less than 'Boone'. In 23 trials conducted during the past 5 years in the region of Virginia where Sussex is recommended, it yielded 10 and 8% more than Barsoy and 'Surry', respectively, and 1% less than Boone. Test weight is moderately low, being similar to Surry and approximately 9% less than Barsoy. Sussex is an early maturing cultivar suitable for use in double crop practices. In Virginia, it heads about 3 days later than Barsoy and 3 days earlier than Boone. Being awnless, it generally can be harvested as early as Barsoy and 1 week or more earlier than Boone.

Sussex is moderately resistant to BYDV and is resistant to races of the casual organisms of scald [Rhynchosporium secalis (Oud.) J.J. Davis] and powdery mildew (Erysiphe graminis DC. f. sp. hordei) presently found in Virginia. It is susceptible to leaf rust (caused by Puccinia hordei Otth). Sussex is not winter hardy, being similar to Boone in this respect, and is not recommended for the northern and western regions of Virginia.

Sussex is a winter type feed barley which is six-rowed and awnless, with short, rough awns occasionally occurring on the central spikelets. Early growth is semi-prostrate to erect and the midtall plants mature early. The green basal leaf sheaths are glabrous; upper leaf sheaths are waxy and yellow at maturity. Auricles are white; leaves are 16 to 24 cm long, 11 to 17 mm wide, and drooping; flag leaves are 9 to 14 cm long and 9 to 13 mm wide. Stems are straight necked and yellow at maturity; exposed nodes are green. Distance from the flag leaf to spike ranges from 16 to 24 cm; the collar is closed and the basal internode is straight and 1 to 2 mm long. The rachis is tough with hairy edges. The dense spike is short to midlong, parallel, waxy, straight and 1 to 2 mm long. The rachis is tough with hairy edges. The dense spike is short to midlong, parallel, waxy, straight and 1 to 2 mm long.

REFERENCES AND NOTES

1. Professor of agronomy, professor of plant pathology, professor of agronomy, respectively, Virginia Polytechnic Inst. and Univ., Blacksburg, VA 24061. Registration by Crop Cultivar Committee 8 Dec. 1983.

REGISTRATION OF JOSEPH AND NEZPURS' IDAHO FESCUE

'JOSEPH' AND 'NEZPURS' IDAHO FESCUE (Festuca idahoensis (Fl. Elmer.) (Reg. nos. 26 & 27, respectively) were developed by the University of Idaho Agricultural Experiment Station. They were tested experimentally as Synthetic 'A' and 'C', respectively. (1) The cultivars were released for certification in Idaho on 16 June 1983.

These perennial bunch type forage fescues have a Spotify growth habit. They are densely tufted, with terminal heads of olive-green to green basal leaves, and unbranched culms at seed maturity. Idaho fescue is widely distributed throughout many northwest states, northern British Columbia, Canada (2, 3, 5).

Each synthetic was selected through phenotypic recurrent selection by intercrossing collections of 89 native ecotypes from the United States and Canada. The clones in each synthetic were selected on the basis of improved floret fertility (seed set), 37% larger seeds, 14% better germination, and 11% better growth and plant type than the original native collection. It has uniform plant height ranging from 72 to 80 cm in height. Joseph is 12 to 18 cm taller than 'Covar' sheep fescue (Festuca ovina var. duriuscula). The culms are erect with a very small collar, and 46% more forage production than Covar and 40% less than Durar.

Nezpurs is a 90-clone synthetic selected from superior clones using the same breeding practices as Joseph. Nezpurs has produced 30% more seed set, 37% larger seed size, and 11% better germination than the original collection. More plant variability exists with Joseph. Mature plants normally range from 55 to 70 cm in height. Culms are erect with larger seed size, and 11% better germination than Joseph. Forage production was 35% more than Covar sheep fescue (Festuca ovina var. duriuscula). Seed production of Joseph is 30% more than Durar.

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