Registration of ‘Safari’ Tall Fescue

Safari tall fescue (Festuca arundinacea Schreb.) (Reg. no. CV-57, PI 547099) was developed by Pure-Seed Testing, Inc., of Hubbard, OR, and the New Jersey Agricultural Experiment Station. Safari was released by Turf Seed, Inc., of Hubbard, OR, in September 1991. It was evaluated under the experimental designations SMW and PST-5MW. Safari is marketed by Turf Seed and the first certified seed was produced in 1991.

Safari is an advanced-generation synthetic cultivar selected from the half-sib progenies of five clones. These clones trace their origin to plants selected from old turfs in Kansas, Georgia, New Jersey, Idaho, and North Carolina from 1962 to 1980. Selected plants were hybridized with each other or with elite plants from the Rutgers University turfgrass breeding program. Progenies from these crosses were subjected to varying numbers of cycles of phenotypic and genotypic recurrent selection. During the fall of 1984, 273 plants were selected from old spaced-plant nurseries at Adelphia, NJ, based on performance during summer stress, attractive appearance, and color retention at low soil fertility levels. Selected plants were transplanted to an isolated crossing block. Single-plant progenies of all plants showing acceptable seed yield were established in a turf trial at Adelphia. Selection within this turf trial was based on attractive appearance, and relative freedom from the rhizoctonia brown patch (caused by Rhizoctonia solani Kühn) and pythium blight (caused by Pythium spp.). A total of 1470 plants selected from the five best-performing progenies were established in a spaced-plant nursery near Hubbard, OR, during the fall of 1986.

Selection criteria within this nursery included high seed yield, attractive dark-green color, and resistance to stem rust (caused by Puccinia graminis Pers.:Pers.). Single-plant progenies of 43 selected plants were established in turf trials in New Jersey and Oregon. Plants selected from the best-performing plots were subjected to a second cycle of selection for increased uniformity, higher seed head number, and improved resistance to powdery mildew (caused by Erysiphe graminis DC. ex Merat) and stem rust in a spaced-plant nursery in Oregon. A total of 319 clones were selected to produce breeder seed of Safari.

Safari tall fescue is a persistent turf-type cultivar with medium dark-green color, medium-fine leaf texture, medium-high density, medium-low growth habit, good early spring greenup, and good late fall color retention. It has improved resistance to rhizoctonia brown patch, stem rust, and crown rust (caused by Puccinia coronata Corda). Safari performed well in the National Turfgrass Evaluation Program ranking third for overall turfgrass quality of 65 tall fescues evaluated at 42 locations for 4 yr.

Breeder seed of Safari is produced by Pure-Seed Testing. Propagation is limited to two generations of increase from breeder seed, one generation each of foundation and certified. U.S. Plant Variety Protection Certificate no. 900080 has been issued for Safari.

CRYSTAL A. ROSE-FRICKER,* W. A. MEYER, AND C. R. FUNK

References and Notes
1. C.A. Rose-Fricker and W.A. Meyer, Pure-Seed Testing, Inc., P.O. Box 449, Hubbard, OR 97032; and C.R. Funk, Plant Science Dep., New Jersey Agric. Exp. Stn., Cook College, Rutgers Univ., New Brunswick, NJ 08903. Publication no. D-12155-1-94, New Jersey Agric. Exp. Stn. Some of this work was conducted as part of New Jersey Agric. Exp. Stn. Project no. 12155, supported by New Jersey Agric. Exp. Stn. funds, other grants, and gifts. Additional support was received from the U.S. Golf Assoc.–Golf Course Superintendents Assoc. of America Res. Fund. Registration by CSSA. Accepted 31 Aug. 1994. *Corresponding author.

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Registration of ‘Earlybird’ Proso Millet

‘Earlybird’ (Reg. no. CV-170, PI 578073) is a white proso millet (Panicum miliaceum L.) developed by the Nebraska Agricultural Experiment Station and released in 1993. Earlybird was selected from the cross ‘Minco’/NE76010/‘Rise’/NE 79017, which was made in 1987 by L.A. Nelson. NE76010 was a selection from ‘Dawn’/‘Panhandle’ and NE79017 was a selection from Dawn/NE76010. Earlybird is an increase of an F1 line of white proso millet that was selected in 1988 and tested under the experimental designations, NE87041 and NE87004-1. Earlybird was released because of its large seed, high yield potential, and early maturity.

Earlybird has a white seed coat (lemma and palea) and a compactum (closed) type panicule. The foliage is green in color and is similar to ‘Sunup’. Cool growing conditions increase the incidence of red pigmentation in the foliage.

Earlybird has been tested in Nebraska yield nurseries starting in 1988, and in regional trials in 1991, 1992 and 1993. In Nebraska trials, grain yields of Earlybird were similar to Sunup, 6% greater than Rise, and 41% greater than Dawn.

Seed size of Earlybird (137 seeds g⁻¹) is larger than all previously released cultivars of proso millet. Seed of Earlybird averages 4% larger than Dawn; 6% larger than Sunup and ‘Snowbird’; 7% larger than Panhandle, Minco and ‘Cope’; and 9% larger than Rise.

Earlybird is intermediate between Dawn and Sunup in maturity. It is expected to perform best where later-maturing varieties are limited by a short season, whether due to crop rotation system or growing season.

Grain volume weight of Earlybird (719 g L⁻¹) does not differ significantly from other proso millet cultivars, but tends to be slightly less than Sunup (724 g L⁻¹).

The straw strength of Earlybird is similar to Sunup and better than other cultivars with similar plant height. It was less susceptible to lodging than Panhandle, ‘Abar’, and Snowbird. Earlybird is intermediate in plant height between Dawn and Rise and averages 10 cm less than Sunup.

Earlybird has shown no susceptibility to Russian wheat aphid [Diuraphis noxia (Mordvilko)]. Dawn and other lines have been attacked by head rot associated with stem-boring insect species in the same nurseries, but this may be due to preference based on relative maturity rather than resistance.

Breeder seed of Earlybird will be maintained by the Nebraska Agricultural Experiment Station. The seed classes will be breeder, foundation, registered, and certified. Earlybird will not be submitted for plant variety protection.

D. D. BALTENSPERGER,* L. A. NELSON, AND G. E. FRICKEL (1)