Registration of ‘Pixie’ Tall Fescue

‘Pixie’ tall fescue (Festuca arundinacea Schreb.) (Reg. no. CV-61, PI 565509) was developed by the Jacklin Seed Co. in Post Falls, ID, from germplasm released from the New Jersey Agriculture Experiment Station, New Brunswick, NJ. The experimental designation of Pixie was J-89. Pixie was released by Jacklin Seed Co. in October 1993. First certified seed was produced and available for sale in 1993.

Pixie was selected from 47 sister lines. Its parental germplasm traces to plants selected from, or closely related to, ‘Rebel’ (2) tall fescue and to plants selected from turfs in Alabama, Georgia, Idaho, Kansas, Kentucky, Maryland, Mississippi, Missouri, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Texas, and Virginia from 1962 to 1977. These selections were evaluated in spaced-plant nurseries for attractiveness, disease resistance, and seed yield potential. Selected plants were allowed to interpollinate or were top-crossed with plants selected from or related to Rebel. Spaced-plant progenies were evaluated in closely mowed turf trials in New Brunswick and Adelphia, NJ. Clonal ramets from these closely mowed turfs were used to start new cycles of recurrent selection. Genetically superior plants that survived the stresses of interplant competition, diseases, insect pests, and frequent close mowing were identified in this recurrent selection program.

The parental clones of Pixie were selected after 4 to 10 cycles of selection. Plants were selected from superior turf plots and established in spaced-plant nurseries at Adelphia in the spring of 1988. Prior to anthesis in the late spring of 1989, a total of 81 clones were selected from this nursery and transferred to an isolated crossing block for interpollination and seed production. Selection was based on freedom from disease; attractive, rich green color; abundant tillering; medium-low plant height; and uniform maturity. Seed was subsequently harvested from the 47 clones having the best fertility and highest seed yields. Seed of each clone was sent to Jacklin Seed Co. on 7 July 1989.

During the fall of 1989, seedlings from each of the 47 sister lines were established in replicated rows in a spaced-plant breeder nursery near Albany, OR. Before anthesis in 1990, approximately 800 plants were removed from this 8000-plant nursery because of a lighter green color, coarse texture, late maturity, or susceptibility to stem rust (caused by Puccinia graminis Pers.:Pers.). The roguing process was repeated, with the removal of approximately 500 plants in 1991 and 300 plants in 1992. Breeder seed of Pixie tall fescue was first harvested from this nursery in 1992 and was used to establish a foundation planting in 1992.

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