Registration of ‘EverGlade’ Kentucky Bluegrass

‘EverGlade’ Kentucky bluegrass (Poa pratensis L.) (Reg. no. CV-90, PI 634976) is a turf-type cultivar released in August 2004 by Jacklin Seed by Simplot, Post Falls, ID. Experimental designations for EverGlade were 94-2910 and J-2910.

EverGlade originated as an apomictic, single-plant selection from the progeny of hybrid cross 92-4230, which was created in the field in June 1992 using Jacklin breeding line 92-0076 as the maternal parent and ‘Midnight’ (Meyer et al., 1984) as the pollen source. Isolation distance and not pollen bags were used to control pollination. 92-0076 is a dark green variety with medium-low turf quality, created in the field in 1990 as a progeny from an open-pollinated hybridization of Midnight Kentucky bluegrass. Seeds harvested from hybrid cross 92-4230 were sown in greenhouse flats in spring of 1993 and transplanted into a spaced-plant nursery of 40,701 plants. Offspring with characteristics dissimilar to 92-0076 were selected during maturation in spring of 1994. Plant number 94-2910 (the experimental designation for EverGlade) was identified as being unique from 92-0076 by the color and appearance of its seedhead. A single spaced plant of 94-2910 produced 56 g of clean seed, which is nearly four times the amount typical for a bluegrass spaced plant in Northern Idaho.

Seed harvested from 94-2910 was tested in turf trials in Idaho beginning in 1994 at 13- and 31-mm mowing heights. Further testing was initiated in 1997 in Maryland (at 9.5- and 50-mm mowing heights), New Jersey, and Ohio. Seed yield was evaluated in trials in Idaho in 1998 and Washington in 1999. First Breeder seed was produced in 2000 and Certified seed in 2003, though none was sold until 2004.

Progeny apomixis trials were conducted in a spaced-plant nursery established near Post Falls in 1999. Among 1267 EverGlade plants, 1.5% were variants in the vegetative (pre-heading) stage, 0.7% were heading maturity variants, 0% were seedhead variants, and 1.7% were miniature plants. In spaced-plant nurseries, EverGlade averaged 96% apomixis, though the level varies in commercial seed production depending on weather, location, and year. Of the heading maturity variants, most are 5 to 10 cm taller than the majority plant form, with a more tan seedhead and yellow culm. Variants in the pre-heading stage show color and leaf width differences from the majority plant form. Variant plants appear to have greater susceptibility to production field diseases than the majority plant form. Aberrant plants are removed from seedstock fields but will continue to be expressed in each generation because of the facultative apomictic nature of Kentucky bluegrass.

EverGlade most closely resembles the cultivar, Liberator (Brede, 2001), differing by a shorter culm length, higher turf quality in the Transition Zone, darker green genetic color, finer leaf texture, and better leaf spot [caused by Drechslera poae (Baudys) Shoem] resistance. EverGlade is a half-sib of the cultivars Alexa (Brede, 2006a) and Freedom III (Brede, 2006b).

EverGlade was tested in the 2000 National Turfgrass Evaluation Program (NTEP) trials for Kentucky bluegrass (Morris, 2002, 2003, 2004, 2005). In the trials, EverGlade had good well in the Northeastern, Great Plains, Mountain West, and Transition Zone regions of the USA, where it was the top-ranking entry. EverGlade has demonstrated the potential for high seed, relative freedom from ergot (caused by Claviceps purpurea (Clav.) Fr.), red thread (caused by Laetisaria fuciformis [Baudys] Shoem.), and is tolerant of annual bluegrass (Poa annua L.) encroachment. In 5 yr of commercial seed production, EverGlade has demonstrated the potential for high seed yield, resistance to leaf spot, Typhula blight (caused by Typhula incarnata Fr.), red thread (caused by Laetisaria fuciformis [Baudys] Shoem.), and is tolerant of annual bluegrass (Poa annua L.) encroachment. In 5 yr of commercial seed production, EverGlade has demonstrated the potential for high seed yield, resistance to leaf spot, Typhula blight (caused by Typhula incarnata Fr.), red thread (caused by Laetisaria fuciformis [Baudys] Shoem.), and is tolerant of annual bluegrass (Poa annua L.) encroachment. In 5 yr of commercial seed production, EverGlade has demonstrated the potential for high seed yield, resistance to leaf spot, Typhula blight (caused by Typhula incarnata Fr.), red thread (caused by Laetisaria fuciformis [Baudys] Shoem.), and is tolerant of annual bluegrass (Poa annua L.) encroachment.

EverGlade is recommended for golf courses and roughs and for lawns, parks, and sports fields in some shade, in areas where Kentucky bluegrass is well adapted to turf. It is compatible in blends and mixtures with cool-season turfgrasses at mowing heights above 50 mm.

Breeder seed is maintained by Jacklin Seed by Simplot, with seed in the National Plant Germplasm System (NPGS), but no seed will be distributed by the NPGS without written permission for 20 yr from the author. Recipients are asked to record if EverGlade contributes to the development of germplasm or is used for other research purposes. U.S. Plant Variety Protection application for turf is pending. EverGlade is protected under the U.S. Plant Variety Protection Act, registration by Crop Science Society of America. Registration by CSSA. Received 10 Apr. 2006. *Corresponding author (doug.brede@simplot.com).

References


Jacklin Seed by Simplot, West 5300 Riverbend Ave., Post Falls, ID 83854-9499. Registration by CSSA. Received 10 Apr. 2006. *Corresponding author (doug.brede@simplot.com).