Registration of ‘Sonoma’ Kentucky Bluegrass

‘Sonoma’ Kentucky bluegrass (*Poa pratensis* L.) (Reg. no. CV-86, PI-632985) is a turf-type cultivar released by Lebanon Seaboard, Inc., Lebanon, PA, in September 2002. Germplasm from the New Jersey Agricultural Experiment Station (NJAES) was used in the development of Sonoma. A97-1323 and LTP-1323 were its experimental designations. The first Certified seed was produced in 2002.

Sonoma originated as a single highly apomictic plant selected from the progeny of the cross C-74 × ‘Lakeshore’ (Bonos et al., 2004) Kentucky bluegrass. C-74 is a medium-dark, low-growing, vigorous apomictic plant collected by C.R. Skogley from an old lawn at Exeter, RI, in 1987. C-74 is similar in appearance and performance to ‘Unique’ (Rose-Fricke et al., 1999) and ‘America’ (Funk et al., 1982) Kentucky bluegrasses. Lakeshore originated as a single highly apomictic plant selected from the open-pollinated progeny of A80-336, which is an exceptionally vigorous, moderately apomictic F₁ hybrid selected from the cross Warren’s A-25 (Dale et al., 1975) × ‘Touchdown’ (Rewinski et al., 1978).

Typical plants of C-74 were pollinated by Lakeshore during the winter of 1994-1995 in a greenhouse located on the Cook College campus of Rutgers University, New Brunswick, NJ. Greenhouse conditions were modified prior to and during anthesis to increase sexual reproduction of facultatively apomictic Kentucky bluegrasses (Bashaw and Funk, 1987; Hintzen and Van Wijk, 1985; Pepin and Funk, 1971). Seed from the C-74 maternal parent was harvested in the early spring of 1995. Seedlings from this cross were germinated in greenhouse flats and transferred to a spaced-plant nursery in the spring of 1996 containing 75 plants. An attractive F₁ hybrid was selected in June 1996 and identified as 96-2289-2. This plant exhibited medium-late reproductive maturity, and good seed yield potential with good floret fertility and abundant panicle production. Sonoma was first planted in a turf plot designated A97-1323 in September 1997 at the Rutgers University Plant Biology and Pathology Research and Extension Farm at Adelphia, NJ.

Sonoma exhibited excellent overall turf quality and leaf spot [caused by *Drechslera poae* (Baudys) Shoemaker] resistance with above average genetic and winter color under a medium intensity maintenance regime (Bonos et al., 2000; 2002). Sonoma was entered in the 2000 National Turfgrass Evaluation Program Kentucky bluegrass test. During the first year of this trial, Sonoma demonstrated above average ratings for shade tolerance, winter density, genetic color, drought tolerance, and shear strength. Sonoma exhibited medium leaf texture, and had above average resistance to melting-out syndrome [caused by *Drechslera poae* (Baudys) Shoem.], leaf rust (caused by *Puccinia coronata* Corda var. *coronata*), stem rust (caused by *Puccinia graminis* Pers.:Pers.), summer patch (caused by *Magnaporthe poae* Landschut & Jackson), and snow mold (caused by *Typhula* spp.) (Morris, 2001). Sonoma performed above average in terms of overall turf quality in both regions, including home lawns, athletic fields, and recreation areas. It should perform well as it is adapted, both as a monoculture and in blends with other Kentucky bluegrass cultivars. It should also excel in mixtures with improved darker-green fine fescues (*Festuca* spp.), turf-type tall fescues (*F. arundinacea* Steud.), and type perennial ryegrasses (*Lolium perenne* L.).

Sonoma has been a reasonably good seed producer for the La Grande and Madras production regions. Sonoma has medium-sized seed that is relatively free of pubescent seed. Freshly harvested seed of Sonoma, Kentucky bluegrasses, can exhibit after-ripening dormancy when seeded during warm soil and air temperatures in summer. Producers who desire faster germination should use seed harvested and stored at temperatures below the threshold for after-ripening dormancy has been overcome (Funk and Van Wijk, 1985; Pepin and Funk, 1971).

Breeder seed of Sonoma will be maintained by Lebanon Seaboard Corporation. Certified seed propagation will be limited to three generations from Breeder seed; one Certified, Registered, and Certified. Application has been made for U.S. Plant Variety Protection.


Acknowledgments


References


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