Registration of ‘Odyssey’ Kentucky Bluegrass

‘Odyssey’ Kentucky bluegrass (Poa pratensis L.) (Reg. no. CV-64, PI 599226) is a turf-type cultivar released in August 1996 by Simplot/Jacklin Seed, Post Falls, ID. The experimental designations for Odyssey were 91-1561 and J-1561.

Odyssey originated as a highly apomictic, single-plant selection from hybrid cross number 89-1037, made in the field at Post Falls in July 1989. Pollen from ‘Midnight’ (Meyer et al., 1984) was used to pollinate plants of ‘Limousine’ (Alderson and Sharp, 1994). Seed harvested from the Limousine mother plants were individually sown into cells of greenhouse flats during the spring of 1990 and later transplanted to a spaced-plant field nursery of 33,500 plants. Offspring with characteristics dissimilar to Limousine were flagged during maturation in the spring of 1991. Plant number 91-1561 was identified as being different from Limousine by its panicle shape and color. It produced 30 g of seed from a single spaced plant, which is twice the seed typical for a bluegrass spaced plant in North Idaho. Seed harvested from this plant was used to establish a turf trial in September 1991, a replicated seed yield trial in August 1992, and a U.S. Plant Variety Protection (PVP) trial in June 1994, near Post Falls.

Odyssey is most similar to ‘Impact’ (PI 599225), which was developed from the same cross. However, it can be differentiated from Impact on the basis of eight botanical traits, as recorded in Odyssey’s PVP application. These traits include a greater culm length, greater length of the lowest internode in the panicle, and more branches at the lowest panicle node.

Progeny evaluated in a 1994-1995 spaced-plant nursery had a level of apomixis sufficient for commercial seed production. A survey of 1928 plants of Odyssey showed that 1.74% of plants were variants in the vegetative (pre-flowering) stage, 0.39% were heading maturity variants, 0.95% seedhead variants, 0.21% miniature plants, and 0% were headless plants. Some variants exhibit high susceptibility to powdery mildew (caused by Erysiphe graminis DC ex Merat); these plants tend to have wider leaves and dissimilar seedheads, but culm lengths comparable to the majority plant form. Approximately 1 to 2% of plants are variants with a very short culm and very late maturity. Approximately 1 in 1000 plants are a taller-growing, “common-type” variant with light-colored seedheads extending approximately 10 cm above the majority culm length. aberrant progeny are rogued from seedstock fields to ensure continued uniformity and stability, but they will continue to occur in every generation. The mean spaced-plant apomixis rate of Odyssey is 95%, but varies ±5% depending upon year, location, and weather.

Odyssey ranked eleventh out of 103 entries for turf quality in the 1995 National Turfgrass Evaluation Program (NTEP) trials for Kentucky bluegrass (Morris, 2000). Odyssey ranked among the top 10 entries in spring, summer, and fall shoot density; dark-green genetic color; fall ground coverage; tolerance to low mowing heights (13-25 mm); and turf quality at seven locations mowing above 53 cm. Odyssey showed improved resistance to drought (dormancy), leafspot, and melting out (caused by Drechslera poae (Baudys) Shoem), nectroic ring spot (caused by Leptosphaeria korrae J. Walker and A.M. Smith), and summer patch (caused by Magnaporthe poae Landschot and Jackson) disease. In 5 yr of commercial seed production, Odyssey has demonstrated the potential for high yields of quality seed, relative freedom from ergot [caused by Claviceps purpurea (Fr.) Tul.], and no adverse reactions to labeled Kentucky bluegrass pesticides.

Odyssey is recommended for golf course tees, fairways, and roughs, and for lawns, parks, and sports turf, in full sun or some shade, in areas where Kentucky bluegrass is well adapted for turf. It is compatible in blends and mixtures with other cool-season turfgrasses.

Breeder seed, first harvested in 1995, is maintained by Simplot/Jacklin Seed. Seed propagation is limited to one generation of increase for Foundation, Registered, and Certified seed. U.S. PVP application no. 9700386 has been filed for Odyssey.

References


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Registration of ‘Scantic’ Broadleaf Tobacco

‘Scantic’, a Connecticut broadleaf cigar wrapper tobacco (Nicotiana tabacum L.) (Reg no. CV-122, PI 619163), was developed with resistance to Fusarium wilt [caused by Fusarium oxysporum Schlechtend. Fr. f. sp. nicotianae (J. Johnston) W.C. Snyder & H.N. Hans.] by the Connecticut Agricultural Experiment Station and released in 2001. This cultivar is adapted to the Connecticut River Valley of Connecticut and Massachusetts, and allows broadleaf tobacco production in soils heavily infested with the Fusarium wilt pathogen. Yields and sorting quality of Scantic are equal to or better than the current standard wilt-resistant cultivar C9 or similar wilt-susceptible cultivars.

Scantic is an inbred derived from a bulk system of modified single seed descent. The F2 generation of an equally represented composite of three crosses between wilt-susceptible Connecticut broadleaf tobacco lines and the tobacco mosaic virus (TMV)-resistant, wilt-resistant cultivar C2 (C2 × ‘Winn’; C2 × ‘Gogulski’; and C2 × ‘Gradowski’) was selected for resistance under greenhouse and field conditions. One thousand seedlings of the F2 composite were each inoculated with 1.0 × 107 microconidia of F. oxysporum in greenhouse trays. Twenty-five of the most resistant and vigorous seedlings were selected and selfed. Following initial selection, F3 to F5 progeny were planted annually into field plots naturally infested with high levels of F. oxysporum. Twenty-five superior wilt-resistant plants of approximately 1200 individuals were selected and selfed, and the seed was bulked each generation. Plants were also selected for reduced sensitivity to weather fleck.