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) in North Carolina and Delaware, and the highest yielding among North Carolina entries. Odyssey showed high yields of quality seed, relative freedom from ergot, and no adverse reaction to labeled Kentucky bluegrass pesticides.

Odyssey is recommended for golf course tees, fairways, 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 cool-season turfgrasses.

Breeder seed, first harvested in 1995, is marketed by Simplot/Jacklin Seed. Seed propagation is limited to 10% generation of increase for Foundation. Registered, U.S. PVP application no. 7700386 has been filed.

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References


Morris, K.N. 2000. National Kentucky bluegrass test 1995—Medium-Odyssey is most... can be differentiated from 'Midnight in the panicle, and more branches at the lowest panicle node.

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 (Baudys) Shoem. and no adverse reaction caused by Claviceps purpurea (Fr.) Tul., and no adverse reaction caused by Poa pratensis. It is adapted to the Connecticut River Valley of Connecticut and Massachusetts, and allows broadleaf tobacco to be grown 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 C2 (C2/H11003), and Scantic is more wilt-susceptible cultivars.

Scantic is an inbred derived from a bulk system generated from single seed descent. The F₂ generation of an estimated composite of three crosses between wilt-susceptible Connecticut broadleaf tobacco lines and the tobacco mosaic virus (TMV)-resistant, wilt-resistant cultivar C2 (C2/H11003) was used to establish a spaced-plant nursery of 33 500 plants. Offspring with characteristics dissimilar to Scantic were flagged during maturation in the spring of 1991. Plant number 91-1561 was identified as being different from Scantic 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. Scantic 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 Scantic’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 Scantic 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 Scantic is 95%, but varies ±5% depending upon year, location, and weather.

Scantic ranked eleventh out of 103 entries for turf quality in the 1995 National Turfgrass Evaluation Program (NTEP) in North Carolina and Delaware, and the highest yielding among North Carolina entries. Scantic showed high yields of quality seed, relative freedom from ergot, and no adverse reaction to labeled Kentucky bluegrass pesticides.

Scantic is recommended for golf course tees, fairways, 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 cool-season turfgrasses.

Breeder seed, first harvested in 1995, is marketed by Simplot/Jacklin Seed. Seed propagation is limited to 10% generation of increase for Foundation. Registered, U.S. PVP application no. 7700386 has been filed.

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