Registration of ‘Everest’ Kentucky Bluegrass

‘Everest’ Kentucky bluegrass (Poa pratensis L.) (Reg. no. CV-91, PI 634977) is a turf-type cultivar released in August 2004 by Jacklin Seed by Simplot, Post Falls, ID. Experimental designations for Everest were 95-2425 and J-2425.

Everest originated as an apomictic, single-plant selection from the open-pollinated (OP) progeny of Jacklin breeding line, 87-0057. Several thousand plant lines were grown in the 1993 nursery where open pollination occurred, and the identity of pollen parent is not known. Line 87-0057 itself originated as an OP progeny of ‘Midnight’ (Meyer et al., 1984) Kentucky bluegrass, selected in 1987 as being taller, with lighter-colored culms, more panicles, and a lower apomixis rate than Midnight. Common Kentucky bluegrass was the likely pollen contributor. 87-0057 was dropped from consideration as a cultivar itself because of its low level of apomixis—a trait which made it useful in breeding. Seeds harvested from 87-0057 were sown in greenhouse flats in spring of 1994 and transplanted into a spaced-plant nursery. Offspring with characteristics dissimilar to 87-0057 were selected during maturation in spring of 1995. Plant 95-2425 was identified as being unique from 87-0057 by the color and texture of its foliage before seedhead expression. A single spaced plant of 95-2425 produced 58 g of clean seed, which is nearly four times the amount typical for a bluegrass spaced plant in northern Idaho.

Seed harvested from 95-2425 was tested in turf trials in Idaho beginning in 1995, in Maryland and New Jersey in 1997, and in Ohio in 1998 and 1999. Seed yield was evaluated in trials in Idaho beginning 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 1379 Everest plants, 0.5% were variants in the vegetative stage, 0.13% were miniature plants, and none were heading maturity variants, seedhead variants, or headless plants. A small percentage of the variants are very fine textured, light green earlier types. Most of the variants are insignificant, with the exception of an infrequent taller, earlier maturing variant that shows an identical or slightly redder panicle, with culms 10 to 20 cm taller than the majority plant form. In spaced-plant nurseries, Everest averaged 99% apomixis, though this number varies from 90 to 99% in commercial seed production depending on weather, location, and year. 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.

Everest most closely resembles ‘Barrister’ (Brede, 2006), differing from it by a shorter internode length below the panicle node, shorter seed (lemma) length, and lower seed weight.

Everest was tested in the 2000 National Turfgrass Evaluation Program (NTEP) trials for Kentucky bluegrass (Morris, 2002, 2003, 2004, 2005). In the trial, Everest had a dark green genetic color and good turf quality at close (25 mm or lower), intermediate (25-50 mm), and higher (greater than 50 mm) cutting heights. Everest performed in the top 10% of entries in all environments in the Northeastern, Transition Zone, and Mountain West regions, where in the latter it was the top-ranking entry. Good spring density and exhibited good resistance reactions to labeled Kentucky bluegrass pesticides. In seed production at maturity, fields of Everest app. 20 cm taller than the majority plant form. In spaced-plant trials near Post Falls in 1999. Among 1379 Everest plants, 0.5% were variants in the vegetative stage, with the color and texture of its foliage before seedhead expression. A single spaced plant of 95-2425 produced 58 g of clean seed, which is nearly four times the amount typical for a bluegrass spaced plant in northern Idaho.

Seed harvested from 95-2425 was tested in turf trials in Idaho beginning in 1995, in Maryland and New Jersey in 1997, and in Ohio in 1996. Seed yield was evaluated in trials in Idaho beginning 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 1379 Everest plants, 0.5% were variants in the vegetative stage, 0.13% were miniature plants, and none were heading maturity variants, seedhead variants, or headless plants. A small percentage of the variants are very fine textured, light green earlier types. Most of the variants are insignificant, with the exception of an infrequent taller, earlier maturing variant that shows an identical or slightly redder panicle, with culms 10 to 20 cm taller than the majority plant form. In spaced-plant nurseries, Everest averaged 99% apomixis, though this number varies from 90 to 99% in commercial seed production depending on weather, location, and year. 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.

Everest most closely resembles ‘Barrister’ (Brede, 2006), differing from it by a shorter internode length below the panicle node, shorter seed (lemma) length, and lower seed weight.

Everest was tested in the 2000 National Turfgrass Evaluation Program (NTEP) trials for Kentucky bluegrass (Morris, 2002, 2003, 2004, 2005). In the trial, Everest had a dark green genetic color and good turf quality at close (25 mm or lower), intermediate (25-50 mm), and higher (greater than 50 mm) cutting heights. Everest performed in the top 10% of entries in all environments in the Northeastern, Transition Zone, and Mountain West regions, where in the latter it was the top-ranking entry. Good spring density and exhibited good resistance reactions to labeled Kentucky bluegrass pesticides. In seed production at maturity, fields of Everest averaged 99% apomixis, though this number varies from 90 to 99% in commercial seed production depending on weather, location, and year. 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.

Everest most closely resembles ‘Barrister’ (Brede, 2006), differing from it by a shorter internode length below the panicle node, shorter seed (lemma) length, and lower seed weight.


