Registration of ‘Cheyenne’ Bermudagrass

‘Cheyenne’ bermudagrass [Cynodon dactylon (L.) Pers.] (Reg. no. CV-32, PI 538020), a turf-type seed-producing tetraploid (2n = 4x = 36) cultivar, was developed and released 1 May 1990 by Jacklin Seed Co., Post Falls, ID. Cheyenne’s experimental designation was CD-14. First certified seed was produced in August 1990. The exclusive U.S. marketing licensee for Cheyenne is Pennington Enterprises, Inc., Madison, GA.

Cheyenne originated from the hybridization of two fertile, self-incompatible clones, one selected from an old turf area in the Columbia River Basin area in the state of Washington and the other from an open-pollinated progeny of PI 253302 (Yugoslavia) (1). Six hundred progeny from the cross were planted in a spaced-plant nursery near Corvallis, OR, in 1987. Five superior clones selected from this nursery were placed in an isolated polycross block before anthesis.

The maternal identity was maintained, as the polycross progeny were interplanted in alternating rows with the original five clones in a 1.3-ha spaced-plant breeder block near Roll, AZ, in 1988. Plants with yellowish leaves and poor seedhead initiation were eliminated before anthesis (0.6% of the population). First breeder seed was produced in September 1988.

Under seed field production conditions, Cheyenne is distinguishable from Arizona common bermudagrass by its later reproductive maturity. Cheyenne flowers approximately 1 wk later than Arizona common in the spring. At maturity, Cheyenne’s plant height is approximately 32 cm, and seedhead length (from tip of spike to base node) averages 181 mm. Seedheads of Cheyenne are relatively large and purplish in color. The mean flagleaf length of Cheyenne is 12.1 cm, with a width of 2.5 mm.

Seeded Cheyenne bermudagrass has an attractive, bright green color under turf conditions. In the 1992 National Turfgrass Evaluation Program bermudagrass test (3), Cheyenne exhibited improved turf quality over Arizona common. Cheyenne’s living ground cover in the spring from seven sites averaged 61%, compared with 45% for Arizona common. Cheyenne retained better winter color than ‘Guymon’. In the same trial, leaf texture of Cheyenne was similar to Arizona common and finer than Guymon.

Under traffic, Cheyenne showed improved shoot density compared with Arizona common (2). Cheyenne can quickly spread to fill damaged areas. Under spaced plant conditions, Cheyenne’s longest stolon averaged 96 cm, compared with 80 cm for Arizona common and 55 cm for Guymon. Stolon length was measured after 36 wk of growth from an October 1993 planting near Yuma, AZ.

Cheyenne is recommended for turf and reclamation use and should perform well when used for lawns, parks, roadsides, golf course roughs and fairways, and athletic fields in areas where bermudagrass is well adapted. It has also shown benefit in light pasturage (C.S. Hoveland, personal communication, 1997).

Cheyenne is a stable and uniform variety. All seed lots evaluated have produced turf of comparable quality and acceptable uniformity. As with any sexually produced species, aberrant progeny variation may occur under severe environmental stress conditions.