Registration of ‘Bunker’ Triticale

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‘Bunker’ (Reg. No. CV-29, PI 643974) is a spring triticale (X tritiscoscale Wittmack), released in 2006 by the Field Crop Development Centre (FCDC), Alberta Agriculture and Food, Lacombe, Alberta, Canada (Canadian Reg. No. 6159). Bunker was derived from the cross Pika-5/Yogui-1/85L012006 produced at FCDC in 1993. Pika-5/Yogui-1 was a CIMMYT introduction where Pika is a CIMMYT spring triticale line not to be mistaken for the registered winter variety Pika (Salmon et al., 1992) 85L012006 was a reduced awn expression (awnletted) triticale developed at FCDC. The reduced awn characteristic in 85L012006 came from a triticale × spring wheat (RL4137 = RL 2520/6° Thatcher/Kenya Farmer) cross, backcrossed several times to spring triticale (7631-ED4B/RL4137//7431A-68E4/3/ Otter ‘S’).

The F2 was grown in the field in 1994 and subjected to selection for degree of awn reduction. The F2 to F3 generations were handled in a modified bulk, using plant type early maturity and degree of awn reduction as the primary selection criteria. The F3 to F5 generations were subsequently evaluated for agronomic type as headrows at Lacombe. Bunker was evaluated as the selection number 93L016002 in preliminary yield trials from 1997 to 2001 and in the Western Canadian Spring Triticale Coop registration trials as T181 from 2002 to 2004.

Based on 27 station years over a three year period on the Canadian prairies, Bunker yielded 4286 kg ha−1, equivalent to the early maturing check variety Pronghorn (Salmon et al., 1997). Over the same period of testing Bunker had a thousand kernel weight of 45.7 g and a test weight of 72.5 kg hl−1, respectively. Bunker averaged 101 cm in height and matured at 107d. Silage trials conducted at FCDC from 2001 through 2004 indicated that Bunker produced 13.1 t ha−1 of silage, compared to 12.7 t ha−1 for the check cultivar Pronghorn.

Bunker is awnletted, tall statured, and has a semi-erect juvenile plant habit. The leaves are dark green in color, medium in length, medium wide, slightly waxy, and glabrous. The flag leaf is semi-erect, dark green in color, medium in width, and medium long. The spike is fusiform, slightly nodding, medium dense, slightly waxy, and has short apical awnlettes. The glumes are yellow at maturity and are medium long, medium wide, slightly pubescent, and slightly waxy. The glume has a rounded and wide shoulder with a beak that is oblique. The kernel is light red in color, large, wide, medium in length, and elliptical in shape. The kernel brush is small to medium in size with medium long hairs. The kernel cheeks are rounded to slightly angular with a medium wide, and medium deep crease. The kernel germ is round to slightly oval and large in size.

Bunker is resistant to the prevalent races of stem rust (caused by Puccinia graminis Pers.:Pers. F. sp. tritici Eriks. & E. Henn.), leaf rust (caused by Puccinia triticina Roberge ex Desmaz F. sp. triticina) and has resistance (moderate) to Fusarium Head Blight (caused by Fusarium graminearum) similar to Pronghorn.

Bunker is best suited for production in the light black and brown soils of the Canadian Prairie Province. The high biomass yield and the short awnlettes may make Bunker suitable for greenfeed production in addition to silage.

Distribution rights have been granted to FarmPure Seeds, 426 McDonald Street, Regina, Saskatchewan, Canada, S4N 6E1, web site: http://www.farmpureseeds.com (verified 2 July 2007). Plant Breeder’s Rights have been applied for in Canada. Breeder seed of Bunker will be maintained by the Field Crop Development Centre, Field Crop Development Centre, Alberta Agriculture and Food, 5030–50th St., Lacombe, AB, Canada, T4L 1W8. Requests for seed samples should be directed to the corresponding author for the first five years. After five years, seed will be available from the National Small Grains Germplasm Collection of the National Germplasm System (http://www.ars-grin.gov/ngpds/).

References