REGISTRATION OF ‘GINGER’ KENTUCKY BLUEGRASS

‘GINGER’ Kentucky bluegrass (Poa pratensis L.) (Reg. no. 38, PI 535819) was developed and released December 1988. The cultivar originated from germplasm introduced from western Europe at approximately 45 °N lat. It was tested experimentally as ID-61 as spaced plants and/or solid seedings for forage at Moscow, ID at 46 °43’ N lat. in Palouse-latches (fine-silty, mixed, mesic Pachic Ultic Haploxeroll) silt loam soils. The area has 56 cm of annual precipitation with little during mid-July to mid-September, which is the seed maturity season. Four generations of maternal line selection from the original germplasm were used to develop Ginger. During each generation, approximately 100 plants were examined for erect plant type, various botanical characteristics, large uniform panicles, disease tolerance, and acceptable seed production. Twenty plants were selected for testing each succeeding generation. The cultivar has 72 chromosomes (2n = 72).

Ginger is an aggressive rhizomatic, perennial forage-type plant with leaf width and length nearly one-third to twice that of other Kentucky bluegrass cultivars. Culms are upright (27 cm), strong and tolerant to lodging, leaves are long (125 mm), wide (6.6 mm), dark green color, and retain greenness into the advance stages of seed ripening. Forage production under intensive management condition of irrigation for six cuttings annually showed Ginger to be higher in forage production than ‘Park’, ‘Troy’, and ‘Argyle’ bluegrasses and ‘Manchar’ smooth bromegrass (Bromus inermis Leys.); all common grasses grown in the area. Ginger starts spring green growth 3 wk or more earlier than the above cultivars and all other bluegrass cultivars in National Kentucky Bluegrass Tests. Tiller regrowth under forage conditions is slightly more rapid than others at each harvest. Ginger withstands close frequent clipping in dense stands than did Manchar smooth bromegrass for three harvest seasons.

Mature plants at seed harvest are 87.0 cm tall with long (16.2 cm), erect pyramidal panicles becoming golden color during advance stages of seed maturity. Seeds are large (4862 mg/10 000 seeds), which are nearly twice that observed with several other bluegrasses. Seedling emergence and seedling vigor are equal or superior to Argyle. Seed maturity at harvest is mid-July, which is 7 to 10 d more than other early maturing bluegrasses in the Northwest. Seed production (424 mg/10 000 seeds), which are nearly twice that observed with several other bluegrasses.

Seedling and seed production (84 mm from ‘Alene’, Argyle, ‘Baron’, Kenblue, and South Dakota, respectively (Ensign, 1987; Ensign et al., 1989). Ginger is moderately tolerant to major foliar diseases under semi-arid test conditions. A scale of 1 = susceptible to 9 = resistant, Ginger had a score of 5 for powdery mildew, caused by Erysiphe graminis DC; 7 for stem rust, caused by Puccinia recondita Rob ex. Desm.; 5 for stem rust, caused by Puccinia graminis Pers. subsp. graminicola Lasch and Gerlachia nivalis Ces. ex. Sacc. These readings are equal or superior to other grasses except that Ginger appears to have stem rust resistance almost equal to Alene and Kenblue.

Ginger is expected to grow well in the major Kentucky bluegrass soils and climate above the 37 °N lat. in the USA and Canada. P. pratensis L. is a dominant forage grass in these areas and has tolerance to close grazing, is compatible with many legumes, and is palatable and nutritious for all classes of livestock.

Breeder seed is produced by R. D. Ensign and will be made available to contract seed producers in the seed areas of northern Idaho and eastern Washington. Commercial seed production will be under the seed certification system with classes limited to breeder, foundation, and certified. United States Plant Variety Protection is pending.

R. D. ENSIGN*(3)

References and Notes


REGISTRATION OF ‘RONDE’ KENTUCKY BLUEGRASS

‘RONDE’ Kentucky bluegrass (Poa pratensis L.) (Reg. no. 39, PI 535820) was developed by the author from five generations of maternal line selection in germplasm introduced from southcentral Europe at approximately 40 °N lat. where used to develop Ronde. It was identified in evaluation trials as ID-23a. Selections were made at Moscow, ID at 46 °43’ N lat. in Palouse-latches (fine-silty, mixed, mesic Pachic Ultic Haploxeroll) silt loam nonirrigated soils. Northern Idaho and eastern Washington is largely a winter wheat (Triticum aestivum L.) growing area, but 80 to 90% of the Kentucky bluegrass seed in the USA is also produced in the area. Kentucky bluegrass seed production is on approximately 28 000 ha, of which two-thirds is nonirrigated soils. Kentucky bluegrass usually produces rapid plant growth during moist fall and winter to late spring periods and seed matures during June and July when precipitation is low. Many new Kentucky bluegrass cultivars mature late when soil water is limited. Thus, developing early maturing, high seed yielding cultivars that also had respectable turf quality when grown in the Kentucky bluegrass zones of the USA was a primary objective of the University of Idaho breeding program.

Ronde produces rhizomatous plants that initiate green growth relatively early, similar to ‘South Dakota’ and ‘Kenblue’. It matures at about the same period as South Dakota, but slightly later than ‘Argyle’ and Kenblue. At plant maturity Ronde is approximately 78 cm tall, which is similar to Kenblue, but shorter than Argyle and South Dakota. It has relatively long (143 mm) leaf sheaths and culms are light tan at ripening. Ronde has an intermediate long (105 mm), open pyramidal panicle compared to 119, 127, 181, 94, and 84 mm from ‘Alene’, Argyle, ‘Baron’, Kenblue, and South Dakota, respectively (Ensign, 1987; Ensign et al., 1989). Ronde seed is expected to be used for turf, possibly as a seed blend with other cultivars used throughout the cool-season grass zones. Turf quality and genetic color is acceptable with scores of 7.1 and 7.3 (on the basis of 9 = best), respectively, at Moscow. Its overall quality was excellent (8.0) in late September 1986 at Beltsville, MD. It may be considered a low-maintenance grass as turf color and growth are less restricted by drought and low fertility than some other bluegrasses.

The cultivar is relatively tolerant to stem rust (caused by Puccinia graminis Pers. subsp. graminicola Urban) and infections of the powdery molderd (Erysiphe gra-