Registration of 96-C-106 Germplasm Clone of Bermudagrass

A dwarf clonal line of bermudagrass \([Cynodon
dactylon\ (L.)]\) Pers.] (Reg. no. GP-2, PI 641703), designated as 96-C-106, was released in 1996 by the Institute of Botany, Jiangsu Province and Chinese Academy of Sciences in 1996. This clonal line was registered by the Chinese Grass Cultivar Registration Board in Dec. 2001 with the registration number 231 (The Chinese Grass Cultivar Registration Board, 2002).

A single plant was selected from a roadside population of bermudagrass in the east suburbs of Nanjing City, P.R. of China, and was classified as a dwarf-fine type of common bermudagrass based on morphological clustering (Liu et al., 1996). 96-C-106 is characterized by natural turf height of 9.5 to 12.5 cm and rhizome spread from 7.25 to 11.5 cm. 96-C-106 is also characterized by a purple-red stem, dark-green leaf, internode length from 2.5 to 5.0 cm, leaf width from 0.20 to 0.25 cm, turf height of 9.5 to 12.5 cm, inflorescence length of 2.0 to 2.5 cm, inflorescence height of 10.5 to 14.9 cm, and 1000 seed weight of 0.21 g (Liu et al., 2004).

96-C-106 remains green for 270 to 285 d in the middle and lower regions of the Yangtze River of the P.R. of China. Approximately 24 to 45 d are needed to obtain 85% ground coverage with a propagation ratio of one sprig per 0.01 m² (Liu et al., 2004). 96-C-106 has dense inflorescence, and seed set as high as 64% in Nanjing regions (Liu et al., 2004). The turf established with 96-C-106 is dense, possesses high resilience and could be mowed as low as 1 cm. 96-C-106 is adapted to adverse growing conditions. It reaches a temporary wilting point when soil moisture (0–10 cm depth) is as low as 0.87% (Liu et al., 2004). It shows no visible stress symptoms when grown on soils with a pH of 9.0. 96-C-106 has also tolerated NaCl solution as high as 200 mmol/L when it was cultured in nutrient solution (Li et al., 2004). No severe diseases have been discovered except foliar blight (caused by Pythium spp.) (Liu et al., 2004).

96-C-106 was selected to supplement the shortcomings of bermudagrass cultivars widely used in China, namely the coarse texture of the seed propagated cultivars (‘Jackpot’, ‘Gyymon’, etc.) and the low disease resistance of cultivars of hybrid bermudagrass (‘Tifway’, ‘Tifgreen’, etc.). 96-C-106 was also selected for use in regions with adverse growing conditions such as saline soils and drought.

Since 1996, 96-C-106 has been used for turf on micro-golf courses, sport fields, public golf, water erosion control along the middle and lower regions of the Yangtze River in the P.R. of China, with an estimated area of 250 ha (Liu et al., 2004).

Sprigs of the clonal line 96-C-106 bermudagrass are maintained at the Institute of Botany, Jiangsu Province and Chinese Academy of Sciences, Nanjing, 210014. Sprigs are available from the Institute for turf production all over the world. It will be maintained by the USDA-ARS, Plant Genetic Resources Conservation Unit in Griffin, GA, available through the National Plant Germplasm System. Small quantities of seed are also available from the National Plant Germplasm System.

Recipient of sprigs or seed are asked to recognize the source of germplasm if it is used in research or the development of a new cultivar, germplasm, parental line, or genetic stock.

JIAN-XIU LIU,* SHAN-AN HE, AND YONG-DONG LIU

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References

Institute of Botany, Jiangsu Province and Chinese Academy of Sciences, Nanjing, 210014, P.R. of China. Registration by CSSA. Accepted 30 Apr. 2006. *Corresponding author (turfunit@yahoo.com.cn).
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