REGISTRATIONS OF CULTIVARS

Registration of 'Ouro Negro', a High Dinitrogen-Fixing, High-Yielding Common Bean

'Ouro Negro' (Reg. no. CV-105, PI 562689), black bean class of dry bean (Phaseolus vulgaris L.), was tested cooperatively from 1983 to 1987 by the Empresa Brasileira de Pesquisa Agropecuária/Centro Nacional de Pesquisa de Arroz e Feijão (EMBRAPA/CNPFAF), Goiânia, Goiás, Brazil; from 1987 to 1990 by the Empresa de Pesquisa Agropecuária de Minas Gerais (EPAMIG) in collaboration with the Universidade Federal de Viçosa (UFV) and the Escola Superior de Agricultura de Lavras (ESAL); and from 1989 to 1991 by the Empresa de Pesquisa Agropecuária do Estado do Rio de Janeiro (PESAGRO). Ouro Negro was released in 1991 by EMBRAPA/CNPFAF, EPAMIG, PESAGRO, and UFV, for winter, cultivation in Minas Gerais and Rio de Janeiro states, Brazil. The line, which may have originally been a genetic mixture, originated in Honduras and was introduced to Brazil by the Centro Internacional de Agricultura Tropical (CIAT). Ouro Negro was selected at EMBRAPA/CNPFAF from common bean entries in the CNPFAF Active Germplasm Bank and was tested as CNF 480 and Honduras 35.

Ouro Negro has a semiprostrate to prostrate growth habit, intermediate between Type II and Type III. Seeds are dull (opaque) black similar to, but larger than, 'ICA Pijao'. In a 1985 trial at CNPFAF, the 50-seed weight of Ouro Negro was 11.3 g, compared to 7.4 g for 'Rio Tibagi' (a standard Brazilian cultivar) and 8.2 g for ICA Pijao. Maturity of Ouro Negro is 5d shorter than Rio Tibagi and ICA Pijao. Although this line was not selected specifically for disease resistance, field observations at EMBRAPA/CNPFAF have indicated that Ouro Negro is resistant to Race alpha-Brasil of anthracnose, caused by Colletotrichum lindemuthianum (Sacc. & Magnus), Lams.-Scrib. (C. Rava, personal communication, 1986), and possesses at least a moderate level of resistance to bean rust, caused by Uromyces appendiculatus (Pers.: Pers.) Unger. The line is susceptible to angular leaf spot, caused by Pseudocercospora griseola (Sacc.) Ferraris; syn. Isariopsis griseola Sacc., and bean common bacterial blight, caused by Xanthomonas campestris pv. phaseoli, and does not carry the single dominant 7-gene form of resistance to bean common mosaic virus. Based on comparisons using total accumulated shoot N, 15N isotope dilution, acetylene reduction activity, nodule mass, and grain yield of plants grown on soils where N is limited (1), field trials in Brazil have shown that Ouro Negro fixes more atmospheric N2 than Rio Tibagi and a comparable amount to previously released high N2-fixing germplasm lines WBR 22-3, WBR 22-8, WBR 22-34, WBR 22-50, and WBR 22-55 (2). In an earlier 3-yr grazing study that used put and take stocking, 3, WBR 22-8, WBR 22-34, WBR 22-50, and WBR 22-55 (2), in this 3-yr grazing study that used put and take stocking, 3, WBR 22-8, WBR 22-34, WBR 22-50, and WBR 22-55 (2), Ouro Negro outyielded Rio Tibagi and ICA Pijao. From 1989 to 1991, Ouro Negro outyielded 'BRl-Xodo' by 1792 to 1454 kg ha-1 over 15 trials in Rio de Janeiro.

Application for plant variety protection has not been made for Ouro Negro. Breeder seed will be maintained by EMBRAPA/CNPFAF.

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References and Notes
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Registration of 'Tifton 85' Bermudagrass

'Tifton 85' bermudagrass (Cynodon spp.) (Reg. no. CV-2, PI 562699) was developed by the USDA-ARS in cooperation with the University of Georgia Coastal Plain Experiment Station, Tifton, GA. It was released April 1992 by the University of Georgia and the USDA-ARS. Tifton 85 is the best of many F1 hybrids between PI 290884 from South Africa and 'Tifton 69', a highly digestible but cold susceptible hybrid released in 1983 (1). It is a sterile pentaploid (2n = 5x = 45). It is taller than other bermudagrass hybrids. Tifton 85 has large rhizomes (though fewer than 'Coastal' and 'Tifton 44'), corms, and large, rapidly-spreading stolons.

In two 3-yr replicated small plot tests beginning in 1985 and 1989, Tifton 85 produced an average of 26% more dry matter that was 11% more digestible and 10% more succulent (had a lower dry matter content at harvest) than Coastal bermudagrass. Compared with 'Tifton 78' in duplicate 0.81-ha pastures fertilized annually with 252–28–112 kg ha-1 of fertilizer, Tifton 85 produced 36% more liveweight gain (LWG) ha-1 yr-1 in 1989 and 1990 and 69% more in 1991 for a 3-yr average of 77% more LWG ha-1 yr-1 (3). In an earlier 3-yr grazing study, Tifton 78 produced 36% more LWG ha-1 yr-1 than Coastal (2). In this 3-yr grazing study that used put and take stocking.