seed protein and 21.0% oil, compared with 40.8% seed protein and 20.6% oil of Douglas.

The Missouri Agricultural Experiment Station will be responsible for maintaining breeder seed. The seed will be maintained as one generation each of breeder, foundation, registered, and certified seed. Foundation seed will be produced and distributed by Missouri Foundation Seeds, Department of Agronomy, 210 Waters Hall, University of Missouri, Columbia, MO 65211.

S.C. ANAND* (8)

References and Notes


REGISTRATION OF 'WALTERS' SOYBEAN

‘WALTERS’ SOYBEAN [Glycine max (L.) Merr.] (Reg. no. CV-285, PI 544354) was developed by the Arkansas Agricultural Experiment Station for planting in areas where Maturity Group V cultivars are adapted. It was released because of its high yield potential and multiple disease and nematode resistance.

Walters was derived from an F1 single plant selection from the cross ‘Forrest’ × ‘Narrow’ (4, 2). The line was tested in Arkansas and other Southern states for seed yield, agronomic performance, and disease and nematode reaction from 1983 to 1989 under the designation R83-1342 (1). It was evaluated in the Uniform Maturity Group V Tests, Southern Region, from 1987 to 1989 (3).

Walters has a determinate growth habit, purple flowers, tawny pubescence, and tan pod walls. Seeds are yellow, with shiny seed coats and black hilum. Maturity, plant height, lodging, and seed quality scores are similar to Forrest. Seeds of Walter average 13.6 g 100⁻¹, which is slightly heavier than that of Forrest. Oil content of Walters is similar to that of Forrest (20.8%), whereas protein averages 39.8%, or 0.7% higher than Forrest. Yield of Walters was ~7% higher than Forrest in the Uniform Maturity Group V Tests, Southern Region, during 1987–1989 and 8% higher in tests conducted in Arkansas (1, 3). Walters also produced higher yields than Forrest in double-crop tests planted after wheat (Triticum aestivum L.) in Arkansas.

Walters is resistant to Race 3 of soybean cyst nematode (Heterodera glycines Ichinohe), but is susceptible to Races 5 and 14 (formerly Race 4) (3). Walters is resistant to southern rootknot nematode [Meloidogyne incognita (Kofoid & White), Chitwood, Race 1] and peanut rootknot nematode [M. arenaria (Neal) Chitwood]. It has the Rps1® gene for resistance to phytophthora rot (caused by Phytophthora megasperma Drechs f. sp. glycinea T. Kuan & DC. Erwin). It is resistant to bacterial pustule [caused by Xanthomonas campestris pv. glycines (Nakano) Dye] and to most races of downy mildew [caused by Peronospora manshurica (Nak-nov) Syd. in Gáum]. It is moderately resistant to sudden death syndrome [caused by Fusarium solani (Mart.) Sacc.]. Walters is moderately susceptible to stem canker [caused by Diaporthe phaseolorum (Cooke & Ellis) Sacc. var. caulivora Athow & Caldwell] and should not be planted in fields where this disease is severe.

Walters is moderately sensitive to recommended rates of herbicide metribuzin, [4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5-(4H)-one]. This cultivar may be damaged when metribuzin is used on sandy soils or under other conditions where injury is likely to occur.

Breeder seed of Walters was distributed in 1990 to foundation seed organization in Arkansas and Missouri. Breeder seed of Walters will be maintained by the Arkansas Agricultural Experiment Station, Fayetteville, AR 72701.

C. E. CAVINESS,* R. D. RIGGS, AND J. C. RUPE (6)

References and Notes


REGISTRATION OF '2548' WHEAT

PIONEER variety '2548' (Reg. no. CV-758, PI 532913) is a common soft red winter wheat (Triticum aestivum L.) developed by Pioneer Hi-Bred International, Inc., and released in 1988.

The parentage of 2548 is 'Hadden'×23/GA1123/×Norin 10-Brevor'/Tenma'/4/MOW6582/Redcoat'/5/Coker 68-15'/4/"Etoile de Choisy"/"Thorne"/Clarkan'/3/'Pawnee'/IN3848A5. Pioneer 2548 was developed by a modified pedigreed method, with single plant selections made in the F6, F7, and F8 generations. The F5 headrow (F2; single-plant selection) that led to 2548 was initially designated W0030E, and was entered into a preliminary yield test, at three locations, in the fall of 1983. It was planted at 10 locations in the fall of 1984 and 16 locations in the fall of 1985. Only 10 of the 16 locations were harvested in the summer of 1986, due to severe winter-kill, and a breeder seed increase was also lost. In the fall of 1986, another breeder seed increase and 21 locations were planted of W0030E. Breeder seed of W0030E was provided to the Pioneer parent seed operation in the fall of 1987 for initial foundation-level increase and it was tested at 32 locations, with the designation W571. It was released in the fall of 1988 as 2548 and was first sold in the fall of 1989. 2548 was tested as Pioneer Experimental XW571 in the 1989 Uniform Southern and Uniform Eastern Soft Red Winter Wheat Nurseries.

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