'BERT' SOYBEAN

[Biochemical and molecular aspects of natural products]

Glycine max (L.) Merr. [Reg. no. CV-294, PI 557010] was developed by the Minnesota Agricultural Experiment Station. It was released in February 1991 because of its high yield and increased plant height compared with other public cultivars of similar maturity.

Bert was derived from an F_4 plant from the cross M74-270 × A78-123018. M74-270 is a selection from M65-69 × M68-99. M65-69 is a selection from the cross M54-12 × 'Corsoy' (8). M54-12 is a selection from 'Renville' × 'Capital' (4,10). M68-99 is a selection from the cross M59-120 × 'Amsoy 71' (7). M59-120 has the pedigree M54-240 × M54-132. M54-240 is a selection from 'Korean' × M42-37(2). M42-37 has the pedigree (Lincoln × Richland) × Lincoln (9). M54-132 is a selection from the cross M10 × Capital. M10 has the pedigree (Lincoln × Richland) × Lincoln. A78-123018 is a selection from the cross Pride 'B216' × 'Hodgson' (5). B216 is a cultivar developed by the Pride Seed Company and has the pedigree Corsoy × 'Wayne' (1). The cross was advanced by the single pod-bulk method to the F_4 generation in Chile and Minnesota. Bert was tested for yield in Minnesota from 1984 through 1990 under the designation M83-899. It was evaluated in the Uniform Soybean Tests, Northern States, Preliminary Test 1 in 1987 and in Uniform Test I from 1988 through 1990 (11).

Bert is classified as Group I maturity (relative maturity 1.9), averaging =4 d later than 'Sibley' (6). It is best adapted as a full-season cultivar from 43 to 45° N lat. Bert has an indeterminate growth habit, purple flowers, gray pubescence, and brown pods at maturity. Seeds are yellow, with buff hila and intermediate seed-coat luster. In comparison with Sibley, Bert has a yield advantage of =7% in Uniform Soybean Tests, and similar lodging resistance. Bert has a yield advantage of 7% over 'Hardin' in Minnesota tests (3). Bert is »12 cm taller than Sibley. Seeds of Bert are 18 mg lighter, =0.8 percentage units lower in protein, and similar in oil content; they are slightly poorer in seed quality (2.2 vs. 1.9 on a scale of 1 = very good to 5 = very poor), compared with seeds of Sibley. The iron deficiency chloroses scores of Bert and Sibley are similar. Bert and Sibley are similar in resistance of 1 = resistant to 5 = susceptible to the Phytophthora gene for resistance to phytophthora root rot [caused by Phytophthora megasperma (Drechs.) f. sp. Glycinea T. Kuan & D.C. Erwin]. The increased height of Bert is particularly useful in stress environments or where additional plant height may be beneficial.

Bert was released on 15 Feb. 1991 to approved seed growers in Minnesota and South Dakota. Bert will be maintained by the Minnesota Agricultural Experiment Station. Plant Variety Protection for Bert is pending.

References and Notes


J. H. ORF* AND B. W. KENNEDY (12)

Published May, 1992