sota Agricultural Experiment Station. Other information on Sibley is published in *Varietal Trials of Farm Crops* (2).

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References and Notes

1. Wilcox, J.R. 1985. The uniform soybean tests northern states. USDA-ARS, Purdue University, West Lafayette, IN.


REGISTRATION OF ‘TOANO’ SOYBEAN

‘TOANO’ soybean (*Glycine max* (L.) Merr.) (Reg. no. 202) (PI 508268) was developed by the Virginia Agricultural Experiment Station. It was released 1 Sept. 1985 because of its high productivity and resistance to soybean mosaic virus, peanut mottle virus, and peanut stunt virus.

Toano was selected as an F₄ plant from a population of the cross ‘Ware’ × ‘Essex’. The cross was made and advanced in bulk to the F₄ generation at the Eastern Virginia Agricultural Experiment Station, Warsaw. Reaction to the viruses was determined in the field at Blacksburg, VA. Plants were inoculated with an air brush (1) about 3 weeks after planting and observed for symptoms through the growing season.

Toano was evaluated as experimental line V75-183 in the Mid-Atlantic Regional Group V test in 1978 and 1984, and in the Virginia cultivar testing program from 1979 through 1984 in both full-season and double-crop plantings. In 41 full-season tests in Virginia, Maryland, and Delaware, the average seed yield of Toano was about 4% greater than that of Essex. In 30 double-crop tests, its performance was very similar to Essex. It is best adapted in the coastal plain area of Virginia, Maryland, and Delaware.

Toano is a Maturity Group V determinate cultivar that matures about 3 days later than Essex. It has purple flowers, gray pubescence, and tan pod walls. Lodging and seed quality scores are very similar to Essex. General appearance of mature plants is similar to Essex except that Toano plants are about 8 cm taller, have dense pubescence, and usually have somewhat thicker stems than plants of Essex. Seeds of Toano have dull yellow seed coats and average about 2 mg larger than seeds of Essex. Hilum color is yellow, although some coloration is observed in certain environments. Seed protein and oil content are intermediate between Essex and ‘Forrest’.

Toano originated as a bulk of V75-183 × V66-318. V66-318 was a selection from the cross of ‘Lee’ × ‘Richland’. J22 was from the cross of the PI 81041 × ‘Arksoy 2913’. V66-318 was from the cross of ‘York’ × ‘Clark’. Stafford was selected from the experimental line V74-315 in the Southern Regional Uniform Maturity Group IV-S test from 1983 to 1985 with seed yield to the check cultivar, ‘Pershing’. Stafford was evaluated as experimental line V74-315 × V68-2331’. The cross was made and advanced in bulk to the F₄ generation at the Eastern Virginia Agricultural Experiment Station, Warsaw. Reaction to the viruses was determined in the field at Blacksburg, VA. Plants were inoculated with an air brush (1) about 3 weeks after planting and observed for symptoms through the growing season.

Stafford was selected as an F₄ plant from a population of the cross ‘D53-184’ × ‘J22’. D53-184 was from the cross of ‘Pershing’ × ‘Douglas’, and J22 was from the cross of ‘York’ × ‘Clark’. Stafford originated as an F₄ selection from the cross ‘D53-184’ × ‘J22’. D53-184 was from the cross of ‘Pershing’ × ‘Pershing’ and ‘Douglas’. Stafford was selected from the experimental line V74-315 × V68-2331’ × ‘V68-2331’. The cross was made and advanced in bulk to the F₄ generation at the Eastern Virginia Agricultural Experiment Station, Warsaw. Stafford originated as an F₄ selection from the cross of ‘V66-318’ × ‘V68-2331’.

Stafford is a late Maturity Group IV cultivar. It matures 2 to 3 days earlier than Essex. Stafford is resistant to bacterial pustule, *Pseudomonas syringae* pv. *phaseoli* (Smith) Dows. var. *sojensis* (Hodek) and reactions of Stafford to downy mildew, *Peronospora manshurica* (Naum.) Syd. ex Gaum., and to purple seed stain (*Cercospora kikuchii* (T. Matsu. and Tomoyasu) Gardner), are similar to those of Essex. Stafford is susceptible to the southern root-knot nematode (*Heteroderaspeciosa* (Neal) Chittwood) compared to other entries in the Uniform Maturity Group IV test.

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