CROP REGISTRATIONS

REGISTRATION OF ‘UI 722’
DARK RED KIDNEY BEAN

‘UI 722’ DARK-RED KIDNEY BEAN (Phaseolus vulgaris L.) (Reg. no. CV-93, PI 549090) was developed by the Idaho Agricultural Experiment Station at the Kimberly Research and Extension Center, Kimberly, ID, and was released in 1988. It has full-season maturity, upright determinate bush growth habit, and very large, attractive seed. UI 722 is an F₁ selection made by John Kolar from the 1972 cross ‘Mecosta’/67-105/PI 226856. Mecosta is a late-maturing, light-red kidney with resistance to halo blight [Pseudomonas syringae pv. phaseolicola (Burk.)] and bean common mosaic virus ( BCMV ), and tolerance to bean rust [Uromyces appendiculatus (Pers.;Pers.) Unger], and ozone. Line 67-105 is a kidney breeding line developed by Marshall LeBaron at the Kimberly Research Station. PI 226856, the Spanish cultivar Blanca de Asturia, has a viny growth habit with medium-large white seed, and resistance to BCMV and bean yellow mosaic virus.

UI 722 was tested in preliminary yield trials at Kimberly in 1985, and in advanced yield trials in 1986. It was tested at both Kimberly and Parma, ID, from 1987 to 1989, and in New York in 1987 and 1988 (1,2) and in Michigan in 1989 (2).

UI 722 matures 3 to 8 d later than ‘Taylor’ cranberry bean and 1 to 3 d earlier than ‘Michigan Improved’ cranberry bean. Average physiological maturity in Idaho is 92 d. Its seed size is larger than most other cranberry beans (51.1 g 100 seed⁻¹ for UI 686 v. 45.7 g 100 seed⁻¹ for Michigan Improved), with only ‘SVM’ cranberry bean possessing seed of comparable size. The seed has a distinctive oval shape, whereas other cranberry beans have elongate seed. UI 686 has an upright, indeterminate vine growth habit, while nearly all other cranberry beans have determinate bush growth habits. Michigan Improved has an indeterminate growth habit, but is less upright and more susceptible to lodging than UI 686. In Idaho, UI 686 consistently yielded more than the bush cranberry bean cultivars but less than Michigan Improved.

Tests for resistance to BCMV were performed at Prosser, WA, by Matt Silbernagel in 1988. UI 686 was resistant to the NY-15 and NL-4 races of BCMV, but exhibited necrotic tip kill with the NL-3 race of BCMV. These results indicate that UI 686 possesses the dominant / gene for resistance to BCMV. In the Uniform Dry Bean Rust Nursery Trials at Beltsville, MD, and Saginaw, MI. At North Platte, NE, it was susceptible to BCMV. In the Uniform Dry Bean Rust Nursery Trials at Beltsville, MD, and Saginaw, MI. At North Platte, NE, it was susceptible to BCMV. In the Uniform Dry Bean Rust Nursery Trials at Beltsville, MD, and Saginaw, MI. At North Platte, NE, it was susceptible to BCMV.

Canning trials were performed by America’s Test Kitchen in Caldwell, ID, in 1986 and 1990. UI 722 performed satisfactorily when compared to ‘Carmine,’ ‘Carmine,’ ‘Carini Red Kidney’, and Royal Red.

Breeder seed is maintained at the University of Idaho, Kimberly Research and Extension Center, Kimberly, ID 83341. Small quantities of breeder seed for selection and experimental purposes may be obtained from the University of Idaho, Kimberly Research and Extension Center, Kimberly, ID 83341. Small quantities of breeder seed for selection and experimental purposes may be obtained from the University of Idaho, Kimberly Research and Extension Center, Kimberly, ID 83341.

References and Notes

3. Univ. of Idaho, Kimberly Res. and Ext. Ctr., Kimberly, ID, and was released in 1988. UI 722 was resistant to the NY-15 and NL-4 races of BCMV, but exhibited necrotic tip kill with the NL-3 race of BCMV. These results indicate that UI 722 possesses the dominant / gene for resistance to BCMV. In the Uniform Dry Bean Rust Nursery Trials at Beltsville, MD, and Saginaw, MI. At North Platte, NE, UI 722 was susceptible with slow rusting reaction to bean rust [Uromyces appendiculatus (Pers.;Pers.) Unger], and ozone. Line 67-105 is a kidney breeding line developed by Marshall LeBaron at the Kimberly Research Station. PI 226856, the Spanish cultivar Blanca de Asturia, has a viny growth habit with medium-large white seed, and resistance to BCMV and bean yellow mosaic virus.

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Published November, 1991