NOTICE OF NAMING AND RELEASE OF ROSADA NATIVA, A BEAN GOLDEN MOSAIC RESISTANT PINK BEAN CULTIVAR FOR PUERTO RICO

‘Rosada Nativa’ pink bean (*Phaseolus vulgaris* L.) was developed by Dr. J. Beaver and Mr. R. Echavez-Badel of the Puerto Rico Agricultural Experiment Station in cooperation with Dr. P. Miklas of the Agricultural Research Service of the United States Department of Agriculture. Rosada Nativa, tested as PR9443-1, was derived from the cross DOR483/’BelNeb Rust Resistant-1’. DOR483 is a bean golden mosaic (BGMV) resistant small red breeding line from CIAT. BelNeb Rust Resistant-1 is a great northern bean germplasm released by the USDA-ARS that has resistance to bean rust [caused by *Uromyces appendiculatus* (Pers.) Unger] and common bacterial blight [caused by *Xanthomonas campestris* pv. *phaseoli* (Smith) Dye]. Crosses, field selections and evaluations were made at the Isabela Substation in Puerto Rico. The F1 was advanced in the field. Individual F2 and F3 plants were selected under field conditions for erect plant architecture, early maturity and commercially acceptable pink seed type. The F4 and F5 were evaluated for plant type, relative maturity and rust resistance. The best plants from selected families were harvested in bulk. The F6 was screened for BGMV resistance using greenhouse inoculations. The BGMV resistance of the Rosada Nativa was confirmed in field trials conducted in Puerto Rico and the Dominican Republic. Rosada Nativa has the recessive bgm-1 allele for resistance to BGMV. The presence of bgm-1, a recessive resistance gene, was confirmed using the R2370/330 RAPD marker. Rosada Nativa represents the first release of a pink bean with BGM resistance. Rosada Nativa is resistant to the bean rust races prevalent in Puerto Rico and the Dominican Republic. It also carries the I gene for resistance to BCMV. The performance of Rosada Nativa was evaluated in 10 field trials conducted in Puerto Rico from 1995 to 1997. When planted during the cooler winter growing season, Rosada Nativa produced seed yields in Puerto Rico similar to the adapted white-seeded cultivar ‘Arroyo Loro’. However, the seed yield of Rosada Nativa was significantly greater (> 30%) than Arroyo Loro when planted during the hot and humid summer growing season. In PROFRIJOL Caribbean Adaptation Nurseries conducted in the Dominican Republic, Haiti and Puerto Rico, Rosada Nativa produced seed yields similar to ‘Tio Canela-75’, a BGMV, heat tolerant small red cultivar. Rosada Nativa has an indeterminate, short-vine Type II growth habit. It is a mid-season line, flowering at 30 d and maturing at 72 d after planting. Rosada Nativa has a commercially acceptable pink seed color and an average seed weight of 31 g 100 seed^-1_. Small quantities of seed are available upon request from Dr. James Beaver, Dept. of Agronomy and Soils, Univ. of Puerto Rico, P.O. Box 9030, Mayaguez, PR 00681-9030.

Director, Puerto Rico Agricultural Experiment Station  
Date

Administrator, Agricultural Research Service  
Date