

Sources of resistance in bean *Phaseolus vulgaris* L. to southern bean mosaic virus

O. Mora-Núñez¹, O. Borges¹ y G. Trujillo³

Abstract

The present investigation was carried out in order to detect and characterize resistance sources in beans *Phaseolus vulgaris* L. to southern bean mosaic virus (SBMV), which was obtained from bean plants, variety Tacarigua, sown in the Tucutunemo Valley area of Aragua state, Venezuela. Nine hundred bean cultivars of different colored grains were evaluated for their reaction after mechanical inoculation, and according to their behavior were classified as resistant (necrotic local lesions) or susceptible (systemic infection). Sixty five resistant cultivars were identified, 55 of them are reported for the first time as resistant to the SBMV. Thirty two of these were black grain and 33 were of different grain colors. The majority of the resistant cultivars with black grain showed good adaptation to the conditions of Venezuela, and the cultivars BAT 271, NAG 55, and MUS 12 were outstanding. The 33 resistant cultivars with grain colors other than black are important for those countries where this type of bean is consumed and the SBMV has been detected.

Key words: *Phaseolus vulgaris*, bean, resistance, southern bean mosaic virus.

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1. Instituto de Genética. Facultad de Agronomía. UCV. Apartado 4579. Maracay 2101-A, estado Aragua. Venezuela. Fax:: 043-461332. e-mail: omoranu@cantv.net

2. Instituto de Botánica Agrícola. Laboratorio de Virología Vegetal. Facultad de Agronomía. UCV. Apartado 4579. Maracay 2101 - A. Venezuela. Fax: 043 - 464143.