

Mode of Inheritance of Bruchid (*Callosobruchus maculatus*) Resistance in Mungbean (*Vigna radiata* L. Wilczek)

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ABSTRACT

Bruchid (*Callosobruchus maculatus*) is the major storage pest in Mungbean (*Vigna radiata* L. Wilczek) in Sri Lanka which can result in even hundred percent loss of Mungbean grains within 2-3 months in storage. Application of chemicals to control the pest is not advisable as it may affect human health, environment and profitability. Thus, it is important to develop varieties with Bruchid resistance. Bruchid resistant sources and the knowledge of their genetic behaviour is the key to a successful crop improvement programme. The inheritance of resistance to Bruchid in two resistant sources of Mungbean, namely, V2802B-G & Jangan received from AVRDC and Republic of Korea, respectively was studied. The F₁, F₂ and backcross generations were developed by making crosses between resistant and susceptible parents to Bruchid. All F₁ generations derived from direct and reciprocal crosses showed Moderate resistance (MR) to Bruchids. The F₂ generations followed 1(R):2(MR):1(S) phenotypic ratio while back cross populations to susceptible variety showed 1(MR):1(S) ratio. All these observations revealed that Bruchid resistance in Mungbean is governed by a single partial dominant gene.

Key words: Bruchid (*Callosobruchus maculatus*), Mungbean (*Vigna radiata*)
Resistant, Susceptible