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Title: Can Phaseolin Patterns Help Resolve the *Phaseolus–Vigna* Complex?

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Abstract

Although common bean (*Phaseolus vulgaris* L.) is cultivated throughout India, the Himalayas hold largest diversity of bean germplasm. No studies on characterization of phaseolin types on this germplasm have been conducted earlier. In order to determine whether the common bean cultivars collected from various areas in the Northern Himalayas represent introductions from the Central American and Andean domestication centers or are local domesticates, we have analyzed the electrophoretic variation (SDS-PAGE) of phaseolin types in several bean accessions. A few species of *Vigna* were also included in this study to determine whether phaseolin (vignin in *Vigna*) patterns can be used to resolve the *Phaseolus–Vigna* complex.

The present investigation on phaseolin (globulin) patterns of *Phaseolus vulgaris* and *Vigna* spp. clearly shows much variability in globulin patterns. Three new types of phaseolin patterns were recorded. An attempt to resolve phylogenetic problems in this complex was made using the phaseolin data.

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