

Contribution of Exotic Germplasm in Varietal Development of Mungbean and Urdbean in India

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Over a period of time several promising introductions in pulses were made from different countries. A total of 497 exotic collections of mungbean and only three exotics of urdbean have been included in Indian base collections. A majority of them were introduced from AVRDC, which is the largest repository of Asiatic Vigna species. Germplasm introduced in India were mostly sources for synchronous maturity, high yield and resistance to lodging and diseases. A total of nine promising introductions from AVRDC were extensively utilized in the development of some of the popular cultivars in mungbean. Pusa Vishal, a selection from AVRDC accession NM 2, released for NWPZ has been becoming popular because of its large seed size (6 g/100 seed weight). Selections made from exotic material introduced from China and Iran have led to the development of Shining Moong 1 and PS 16, respectively. These selections were widely used in crossing programme and subsequently few superior cultivars such as KM 1, Sunaina and RMG 62 were released. Most of the early maturing types are available in the base collections of

University of Philippines, Los Baños. The gene for yellow seed color was transferred to a high yielding cultivar of Philippines MG50-10A to produce MG50-10-Y which can be introduced for attractive seed colour. Excellent sources of resistance to Cercospora leaf spot and mottle virus have been identified in germplasm accessioned at University of Philippines. Several promising introductions for early and large seeded types (EC 118894, EC 118898), photoinsensitive (EC 318985, EC 318989, EC 319054), long podded with shining green coat (EC 393407, EC 393409, EC 393407) hold promise for development of mungbean improvement programme. An introduction from Taiwan, EC 245976, a potential source of bruchid resistance may prove useful in evolving resistant cultivars of urdbean. The possibilities of introductions for attractive seed colour, bold seeds, long pods and high number of seeds per pod may be explored from the other genetic resources centres of the world. Access to unique and potential valuable germplasm is key to sustained varietal improvement programme.