B-30 : IDENTIFICATION OF HIGH YIELDING GENOTYPES OF MUNGBEAN (*Vigna radiata* (L.) Wilzeck) UNDER LOW NITROGEN REGIME

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Mungbean is a very popular grain legume in Sri Lanka which is grown over an area of about 34,836 ha. This crop is mainly cultivated under low-input conditions and it is hardly fertilized. The average yield of this crop is about 750 kg/ha. However, it could yield over 2000 kg/ha under good management conditions. In legume improvement programmes, high yielding varieties have generally been selected or developed under well fertilized conditions where N is not limiting for growth. Hence, varieties developed under such conditions are unlikely to possess high N_2 fixation potential.

Hence, germplasm of mungbean obtained from Asian Vegetable Research and Development Centre in Taiwan, Australia and Pakistan were evaluated for nodulation, growth and yield under low nitrogen regime with a view to identifying genotypes with high symbiotic potential. The study involved 40 genotypes whose performance was compared against a local check ie. Type 77, a variety recommended by the Dept. of Agriculture. Considerable genotypic variability in nodulation, growth, yield and growth duration was evident and genotypes superior to the local check in terms of nodulation, growth and yield were identified. V 1378, VC 3580B, Berken and V 1946 showed marked superiority in nodulation compared to Type 77. The growth duration of the genotypes studied varied from 55 to 150 days. It appears that there is scope for yield improvement of local cultivars of mungbean through appropriate breeding programmes utilizing the promising genotypes identified.