

REPORT

**SUITABILITY OF PROMISING LABLAB BEAN [*Lablab purpurious* (L) Sweet) LINES AS HOMEGARDEN CROP TO SUPPORT NUTRITION IMPROVEMENT OF RURAL HOUSEHOLDS**

D.P. KARUNANANDA, R. RANATHUNGA, S. EKANAYAKE and  
M.A. KUMARAGE

*Horticultural Crop Research and Development Institute, Gannoruwa, Peradeniya,  
Sri Lanka*

Homegardening is the most common and wide spreading agriculture practice in the country, which does not limit to a region or season. There are some under-utilized crop species suitable for homegarden conditions that would be effectively support in achieving national level food security. A number of edible legumes can be identified among these crops, which are used as food in the Asian region, but not popular in Sri Lanka as vegetables or pulse crops. Among these legumes, some *Lablab* species such as *Lablab purpurious* (L.) Sweet and *L. niger* (L.) Medikus are common. Most of the *Lablab* species are perennials, and require low attention and water, but give year-around production. Though it is rich in protein, some *Lablab* bean cultivars contain traces of toxic chemicals such as proteinase inhibitors and glycosides. However, researches have shown that the quantities of toxins in most of *Lablab* cultivars are negligible and amounts also diminish with cooking. Therefore, this study was conducted to investigate the public acceptability as a vegetable, cultivation method under homegarden conditions, resistance to infection from the horse gram mosaic virus infection, and level of presence of cyanogenic glucosides of two promising *Lablab* lines namely, HG 1215 and HG 3732. Both *Lablab* lines were cultivated providing three types of growing supports namely, poles, permanent trees and surrounding fence. The longevity, yield and land use efficiency were recorded. The immature pods of each line were cooked in a similar manner, and the food quality was evaluated using a tasting panel.

The *Lablab* line HG 3732 gave a higher yield (300 g pods week<sup>-1</sup> vine<sup>-1</sup>) and the maximum utilization of land in the pole method (with 45 cm spacing) from 8<sup>th</sup> week of cultivation and covered 0.2 m<sup>2</sup> of land space. The line HG 1215 gave a higher yield as 800 g week<sup>-1</sup> vine<sup>-1</sup> from the 14<sup>th</sup> week covering 2-6 m<sup>2</sup> of vertical space in the fence. About 85 % of the respondents preferred HG 3732, and 93.3 % preferred HG 1215. Both *Lablab* lines were resistant to horse gram mosaic virus and the HCN content of HG 3732 and HG 1215 was 4.2 ppm and 3.4 ppm, respectively. Early flowering and short growing qualifies the *Lablab* line HG3732 to be suitable for small homegardens while HG1215 for large home gardens.