907/B/Poster

Evaluation on the performance of photo period insensitive winged bean (*Psophocarpus tetragonolobus* (L.) DC.) varieties in the mid-country wet-zone of Sri Lanka

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Vegetable production in Sri Lanka needs to be improved to fill the gap between the per capita requirement and the availability. Introducing improved varieties and improving crop management practices are the most practicable methods to increase the production. Winged bean is a promising leguminous vegetable, which can be cultivated throughout this country. The objective of this study was to identify adaptable, high yielding photoperiod insensitive, pest and disease tolerant/resistant varieties of winged bean. This research was conducted at the research fields of the Horticultural Crop Research and Development Institute (HORDI),Gannoruwa, Peradeniya, (mid country wet zone). Seven varieties were tested for ten successive seasons from *Yala* 1999, namely, Chinese, Chinese(M), UPS-139, UPS-122(Krishna), SU-413, SLS-44 and Dwarf, in a Randomized Complete Block Design (RCBD), with 4 replicates. UPS - 122 (Krishna) recorded the highest mean yield of 17.7 t/ha, while SLS44 gave the lowest yield of 13.5 t/ha. The yield was significantly different among the varieties tested (P=0.0016). The breeding method was selection and purification. Cultural and agronomic practices were performed according to the Department of Agriculture recommendations. Both qualitative and quantitative data showed that the two varieties UPS-122 (Krishna) and SLS-44 performed well, with regard to mean no of days to first flowering, mean no of days to 50% flowering, mean no of days to first pick, mean no of days to last pick, marketable fresh pod yield (t/ha), mean no of picks, mean no of pods per plant, mean single pod weight (g), mean pod length (cm), mean no of seeds per pod, mean circumference at mid - point of the pod (cm), mean 100 seed weight (g). These two varieties were officially recommended and released by the Variety Release Committee (V.R.C.) of the Sri Lanka Government Department of Agriculture. The seeds of the above two varieties were given to the Seed Certification Service (S.C.S) of the Department Of Agriculture, multiplied at the Department of Agriculture Farms and distributed to the farmers.

Keywords : Mid-country wet-zone, winged bean

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