VARIETAL EVALUATION OF IMPROVED GREEN GRAM CULTIVARS (*Vigna radiata*(L) Wilczek) of the "National Co-ordinated Varietal Trial" (NCVT) in Mahailuppalama.

by

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Abstract

An experiment was conducted at the Agricultural Research Station , Mahailuppallama , during May to July , 1989 (Yala) to evaluate the seed yield and yield components of sixteen improved green gram cultivars (Vigna radiata (L) Wilczek).

Analysis of variance (ANOVA) studies indicated that plant height at complete maturity , days to first , 50% , 100% flowering , days to 75% and 100% maturity and 1000-seed weight have high significance differences and number of branches per plant and number of pods per plant have low significance differences but no significance differences in seed yield and number of seeds per pod. The highest seed yields recorded for the following were, V14 (1242.5 kg/ha) , V15 (1123.6 kg/ha), V5 (1093.7 kg/ha) and V11 (1091.3 Kg/ha) The tested varieties took 27.33 to 31.33 days for first flowering. V5 gave the earliest seed yield during the season.

All varieties were evaluated for eight yield related characters at three replications which was considered for estimation of correlation analysis for seed yield and yield components. Positive correlations were found between seed yield and number of seeds per pod , days to 100% maturity , number of pods per plant and number of branches per plant and negative correlation with days to first , 50% and 100% flowering , days to 75% maturity , 1000-seed weight and number of plants per plot.

The association of 1000-seed weight was positive correlated with days to first , 50% and 100% flowering and high negative correlated with number of pods per plant. The results of the above experiments are then discussed in relation to future green gram improvement through plant breeding.

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