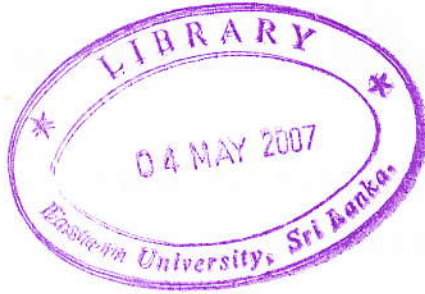


**COMPARING THE PERFORMANCE OF SELECTED
COWPEA (*Vigna unguiculata* (L.) Walp) CULTIVARS
ON SANDY REGOSOLS OF BATTICALOA DISTRICT**



By

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ABSTRACT

This experiment was carried out in the Agronomy farm of the Eastern University, Sri Lanka in order to identify the most suitable cowpea (*Vigna unguiculata*) cultivar (Cv) to grow on the regosols under the conditions prevailing in the Eastern region of Sri Lanka.

Three cowpea cvs MI 35, Dhawala, and Waruni were compared. Dhawala was used as a check variety because of its common cultivation in this region. The experiment was laid out in the Randomized Complete Block Design having three treatments and six replications per treatment and was managed in accordance with the recommended cultural practices.

The data of canopy height at 100% flowering, fruit length, number of branches per plant at 100% flowering, 100 seed weight, Relative Water Content (RWC), Leaf Area (LA), Root Length Density (RLD), Total Biomass and Total Fresh Fruit Yield were collected and were analyzed statistically to determine the treatment effect. Varieties tested in this experiment showed significant differences in the growth parameters such as canopy height at 100% flowering, fruit length, number of branches per plant at 100% flowering, 100 seed weight, Leaf Area (LA), Root Length Density (RLD), Total Biomass and Total fresh fruit yield.

It was clearly seen that among the varieties tested, a wide variation existed in several traits of agronomic importance. Selection must therefore be approached based on attribute which may contribute to the development under specific environment, along with yield.

Considering the results of the investigation it is suggested that cv MI 35 is the most suitable to grow on sandy regosols under the conditions prevailing in the Eastern region of this Country. This variety showed outstanding performance in many of the agronomic characteristics such as pod yield, days to maturity and number of branching at 100 % flowering.

To understand the varital characteristics of each cv, the most distinguishing morphological characters were studied. This study also showed that each cv possessed unique set of morphological characters that were different from each other. Hence, each cv has its own identity to contribute toward better breeding programme.

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