

**INCREMENT OF YIELD OF EARLY MATURING
YARD LONG BEAN WITH
EARLY NUTRIENT AND HORMONE
SUPPLEMENTS**

A dissertation submitted to the
Faculty of Animal Science and Export Agriculture
Uva Wellassa University

In partial fulfillment of the requirements for the award of the
Degree of Bachelor of Science in Export Agriculture

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2012

ABSTRACT

Legumes are one of the major sources of plant protein for human. Yard long Bean (*Vigna unguiculata subsp sesquipedalis*) is a major leguminous vegetable which is grown as a major crop in low and mid country wet zones and provides about 50 000 metric tons of yield in Sri Lanka. Gannoruwa Hawari mae is a new variety which have been released by the Horticultural Crops Research and Development Institute, Gannoruwa in 2011. In Sri Lanka, this variety shows a very high growth rate and produces yield quickly and completes its life cycle in a short period of time or shows an early maturing nature, giving thirty five tons per hectare yield. Flowering occurs in this variety before plant grows up to stake length of six feet and declining further growth. Therefore, it is important to find out a solution to obtain a higher growth from the variety before flowering and to increase the yield that could be obtained from it. To find out the most effective application of fertilizer and hormone early to increase the growth and yield of the variety this experiment was done in the Horticultural Crops Research and Development Institute, Gannoruwa at the *yala* season 2012. Six treatments were used with three replicates under the Randomized Complete Block Design method. Urea, Albert Solution and gibberellin were applied in split doses. 35 kg/ha urea, 35 kg/ha MOP, 130 kg/ha TSP were applied as the basal dressing. Treatments were as below, (T₁) 10 t/ha compost, 35 kg/ha urea (10, 20, 30 DAP). (T₂) 10 t/ha compost, Albert (10 g/4.5L of water) (10, 20, 30 DAP), (T₃) 20 t/ha compost, 35 kg/ha urea (10, 20, 30 DAP), (T₄) Albert (20 g/4.5L of water) (10, 20, 30 DAP), (T₅) Nap Gibb (1 g/16 -20 L of water) (15, 30 DAP), (T₆) Current recommendation of fertilizer by the DOA (10 t/ha compost, urea 55 kg/ha and MOP 35 kg/ha (30 DAP). MOP 35 kg/ha was applied to all the treatments 30 DAP. Terminal leaflet length and width has significant difference among treatments. Significant difference could not be seen among treatments in any other characters. Increment of yield was not observed among treatments of urea, Albert solution and nap Gibb. Therefore, Current fertilizer recommendation can be used. But, further researches should be carried out to find the most effective application of fertilizer to increase the growth and yield.

Key Words: Yard Long Bean, Gannoruwa Hawari mae, Fertilizer, Growth, Yield