

**Effect of *Bacillus subtilis* plant beneficial bacteria on growth performance of pegaga
(*Centella asiatica*)**

ABSTRACT

A study was conducted to investigate the effect of plant beneficial bacteria (*Bacillus subtilis*) with combinations of NPK green fertilizers on the growth of pegaga (*Centella asiatica*). Six treatments (6) were designed in this study:- 1) without plant beneficial bacteria and NPK fertilizer (control), 2) 10 g/ L of plantbac, 3) NPK fertilizer, 4) NPK fertilizer and 8g/L of plantbac, 5) NPK fertilizer and 10 g/L of plantbac and, 6) NPK fertilizer and 12 g/L of plantbac. The nitrogen and phosphorus concentration in the leaf, petiole and root were increased after incorporation of plant beneficial bacteria and NPK green fertilizer in the soil media. Similarly, fresh weight (FW), root length (RL) and root volume (RV) recorded also greater than the control set. The usage of plantbac either with or without incorporation of NPK potentially to be promoted for sustainable pegaga cultivations. The best treatments were recorded as follows:- NPK fertilizer and 12 g/L (T6) > NPK fertilizer and 10 g/L of plantbac (T5) > NPK fertilizer and 8g/L of plantbac (T4) > NPK fertilizer only (T3) > 10 g/ L of plantbac only (T2) > without plant beneficial bacteria and NPK fertilizer (T1).

Keyword: Plantbac; NPK green; Herbs; Best management practices (BMP)