

PERFORMANCE OF NEWLY INTRODUCED FERTILIZERS WITH CUCUMBER PLANTS

R.M.T.L. Senevirathna¹, T.I.I. Dammika² and T.A.B.D. Sanjeewa¹

¹Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura

²Haleys Agriculture Holding Limited, 25, Foster Lane, Colombo 10

High cost of fertilizer and low yield performance are two of the major constraints in vegetable cultivation in Sri Lanka. An experiment was carried out in Hayleys Agriculture Holdings farm Dambulla, using a Randomized Complete Block Design (RCBD) with three replicates to find out the performance of newly introduced fertilizer mixtures, namely Vitaflora and Herbagreen in cucumber (*Cucumis sativus*). Treatments were Department of Agriculture recommended inorganic fertilizers (T_1), 5 g L⁻¹ Herbagreen weekly (T_2), 5 ml L⁻¹ Vitaflora weekly (T_3) and 2.5 g L⁻¹ Herbagreen + 2.5 ml L⁻¹ Vitaflora weekly (T_4). Length of main vine, leaf area, number of female flowers, Number of male flower, number of pods, pod length and pod circumference were measured to evaluate the performance of fertilizers. There were significant ($p < 0.05$) differences in the length of main wine, number of male flowers, number of female flowers, pod length and pod circumference between different treatments. Highest performance was observed in the plants treated with Herbagreen + Vitaflora (T_4), and the lowest from Department of Agriculture recommended fertilizer (T_1). There were no significant ($p > 0.05$) differences in the yield performance between T_4 and T_3 as well as T_1 and T_2 . These results indicate that performance of Vitaflora is significantly higher than Department of Agriculture recommended fertilizer and can be recommended for commercial farmers. However, Herbagreen is not effective as Vitaflora.

Keywords: Cucumber, Fertilizer, Herbagreen, Vitaflora, Yield