

EFFECT OF VERMICOMPOST AND ORGANIC LIQUID FERTILIZERS ON THE GROWTH AND YIELD OF RED ONION

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Red onion *Allium cepa* is a highly significant and long-standing cash crop cultivated in Sri Lanka. The current costs of fertilizers and agrochemicals are not affordable for majority of small-scale onion farmers. Hence, this study aimed to evaluate the impact of different organic manure on the growth and yield of red onions. A field study was carried out at the Sustainable Agriculture Research and Development Centre, *Makandura*. The experiment comprised of eight treatments, namely T₁: control (no fertilizer), T₂: vermicompost only, T₃: vermicompost + partially burned paddy husk (PBPH) T₄: vermicompost + bokashi, T₅: vermicompost + fish tonic, T₆: vermicompost + PBPH + bokashi, T₇: vermicompost + PBPH + fish tonic, T₈: vermicompost + PBPH + fish tonic + bokashi. The experimental design was a randomized complete block design with three replicates. Growth and yield parameters of red onion crop were measured during study period. The quantitative data were subjected to analysis of variance using Minitab software. The results indicated that, T₇, which comprised of vermicompost, partially burned paddy husk and fish tonic recorded the significantly greater ($p < 0.05$) plant height (30.01 cm), maximum number of leaves per plant (7.83), fresh plant weight (23.11 g plant⁻¹), highest bulb weight (17.80 g bulb⁻¹) compared to other treatments. The findings reveal that the combination of vermicompost, partially burned paddy husk, and fish tonic perform well in red onion cultivation in open field farming.

Keywords: Bokashi, Bulb weight, Fish tonic, Partially burned paddy husk