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Early seedling growth of tomato (*Lycopersicon esculentum* L.) as affected by different types of compost tea

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The research was conducted at the Department of Crop Science, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, to study the effect of compost tea on early seedling growth of tomato.

Topsoil, sand and compost were mixed at 1:1:1 ratio to prepare the nursery mixture and black polythene bags (8×12 cm) were filled. Pre germinated three tomato seeds of Variety T 245 were planted in a polythene bag. Nine different types of compost were taken, which has nine different compositions for the preparation of compost. Banana stem (BS) 10, 20, 30, 40, 50, 60, 70, 80 and 90 Kg were mixed with Fruit Processing Factory Waste (FPFW) 90, 80, 70, 60, 50, 40, 30, 20 and 10 respectively to made 100 Kg of total bulk. *Gliricidia* and cow dung were added to every type of BS and FPFW mixture at constant rate of 2 kg each. Compost tea was prepared by soaking 100 g of compost for 24 hours in 1 liter of water. 50 ml of each type of compost tea was applied to the poly bag in every other day. Experiment was set up according to the Completely Randomized Design with three replicates. Number of leaves per plant and plant height were recorded as growth parameter in weekly interval.

The highest number of leaves per plant was observed in the treatment of compost tea out of BS: FPFW in 1:1 ratio. In the treatment of compost tea made out from compost with BS: FPFW in 3:7 ratio gave the lowest number of leaves per week during the entire growing period. Results also revealed that, treatment of tea made out from compost consist of BS: FPFW (1:1) ratio recorded the highest plant height (14.15 cm) during three weeks of nursery period.
It can be concluded that, tea made out from the compost which has 1:1 ratio of Banana Stem (BS) and Fruit Processing Factory Waste (FPFW) could be used as a liquid fertilizer for tomato nursery to obtain vigorous plants for field planting.

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