PREPARATION OF NURSERY MEDIUM FOR CHILLI (*Capsicum annum L.)* USING CARDBOARD POWDER

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ABSTRACT

This research was conducted to study the feasibility of cardboard powder used as nursery medium material for raising chilli seedling. The experiment was carried out from March to June 2024 at the Faculty of Technology, Eastern University, Sri Lanka. The study was designed in CRD with five treatments and ten replicates. The treatments are T_1 (Control) – normal nursery medium sandy soil: top soil: compost 6:2:4, T_2 sandy soil: top soil: compost: cardboard powder 6:2:3:1, T_3 is sandy soil: top soil: compost: cardboard powder 6:2:2:2, T_4 is sandy soil: top soil: compost: cardboard powder 6:2:1:3, T_5 is sandy soil: top soil: cardboard powder 6:2:4. pH, water holding capacity & porosity of decomposed nursery medium were measured before sowing seeds. Seedlings height, number of leaves per seedlings were measured at 2 and 3 weeks old. Fresh and dry weights of the seedlings were measured at near to transplanting. Analysis of variance was performed to determine significant differences among treatments. Results suggest that combining cardboard powder with compost improves soil physical properties without changing nursery medium pH. Growth parameter analysis indicated that growth of seedling is influenced by nursery medium composition. Highest seedling height, fresh weight and dry weight were observed in chilli seedling grow in medium having sandy soil: topsoil: compost: cardboard powder 6: 2 : 2 : 2. Cardboard powder would be used as a material for nursery medium preparation for chilli seedlings. This combination would be help to increase seedlings growth rate. According to the results of the study, same amount of cardboard powder and compost combination medium would be a suitable application rate for nursery medium.

Key words: Nursery medium, Cardboard powder, Chilli seedling

TABLE OF CONTENT