

Effect of compost and green biomass mixture (*Tithonia diversifolia* and *Leucaena leucocephala*) on the growth and production of Chili (*Capsicum frutescens*.)

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ABSTRACT

The pot experiment was carried out to study the effect of compost and green biomass mixture on the growth and the production of chili. Rice straw and corn stalks were the domestically accessible crop residue were used main compost material, and green leaves of Ipil-ipil and wild sunflower were used as green biomass material. An experimental was laid out in a complete randomized design (CRD) with two replicates having the following Treatment: T₁ Crop residue compost only 1Kg- control treatment, T₂ Crop residue compost + Green biomass at 750:250 g rate, T₃ Crop residue compost + Green biomass at 500:500g rate, T₄ Crop residue compost + Green biomass at 250:750g rate, T₅ Crop residue compost + Green biomass at 600:400g rate, T₆ Crop residue compost + Green biomass at 400:600g. M2 variety of chili plants were planted in prepared potting media in a polythene bag and all other agronomic practices were done as recommended by the Department of Agriculture, Sri Lanka. Growth parameters were measured from the 2nd week up to the 8th week after planting and yield parameter was taken 10th week. Then data were analyzed statically using mini tab 17. The result showed that different rates of compost mixed green biomass had a significant effect on some tested parameters of chili over the control. The result revealed that application of T₆ Crop residue compost + Green biomass at 400:600g significant differences in growth and yield parameters than other treatments. Which suggested Application of crop residues compost 400g and a combination of green biomass 600g would be the suitable rate for optimum plant growth and yield.

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