

**EFFICIENCY OF COMBINED USE OF COW DUNG AND TEA
WASTE ON SEED GERMINATION AND SEEDLING
PERFORMANCE OF CORIANDER (*Coriandrum sativum* L.) IN
SANDY REGOSOL**



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ABSTRACT

The pot experiment was carried out to study the efficiency of combined use of cow dung and tea waste on seed germination and seedling performance of coriander (*Coriandrum sativum* L.) and also study the best ratio of cow dung and tea waste to seed germination and seedling growth of coriander herbs (*Coriandrum sativum* L.). It was laid out in Complete Randomized Design (CRD) with four replications with following treatments ; T1- 0:0 ratio of cow dung and tea waste as control, T2- 5:0 ratio of cow dung and tea waste ,T3- 4:1 ratio of cow dung and tea waste, T4- 3:2 ratio of cow dung and tea waste, T5- 2:3 ratio of cow dung and tea waste,T6- 1:4 ratio of cow dung and tea waste and T7- 0:5 ratio of cow dung and tea waste.

The results indicated that the efficiency of combined use of cow dung and tea waste had significant differences ($P < 0.05$) on seed germination, leaf area, fresh and dry weights of leaves, stem, shoot and root and also root length of young plants but, number of leaves and shoot length were not significantly efficient due to combined use of cow dung and tea waste.

According to that statistically analyzed result, combined use of cow dung and tea waste 4:1 ratio (T3), 5:0 ratio (T2), 3:2 ratio (T4) and 0:5 ratio (T7) showed significant difference with 0:0 ratio (T1) in different seedling performances. In fresh leaves weight T2, T3 and T4 were showed significant difference with T1. In root length T2 and T7 were showed significant difference with T1, but only T7 was showed significant difference with T1 in dry root weight. T2 and T4 both treatments were showed significant difference in seed germination % and seedling performances such as fresh leaves weight, fresh shoot weight with T1.T2 was showed significant difference with T1 in fresh root weight and dry leaf weight, but T4 was showed

significant difference with T1 in seed germination % and seedling performances such as leaf area, fresh stem weight, dry stem weight and dry shoot weight. According to that results, T4 was showed greater times seedling performances than other treatments. Cow dung and tea waste are the most readily available organic manure for enhancing seed germination and seedling performance of coriander. As a result, cow dung and tea waste at 3:2 could be utilized to increase seed germination and seedling growth to coriander herbs.

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