

PERFORMANCE OF CHILLI, *Capsicum annum* L. UNDER DIFFERENT FOLIAR TREATMENTS

I.J.A. Ruhunuge^{1*}, A.W. Wijeratne², K.K.S. Weerasinghe¹, R.P.A. Sandaruwan¹ and E.M. Wimalasiri³

¹Department of crop management, Faculty of Agriculture, Aquinas College of Higher Studies, Colombo, Sri Lanka

²Department of Agribusiness Management, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka

³Department of Export Agriculture, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka

*isuriruhunuge999@gmail.com

The general technique of supplying nutrients to plants is the application of fertilizer to the soil. However, foliar applications are practised to offset the rapid nutrient requirements of plants. This study evaluated the growth and yield performances of MI-Green chilli variety under Department of Agriculture (DOA) recommendation over different foliar applications. This experiment was laid out in a Randomized Complete Block Design (RCBD) with five foliar spray treatments viz., cow dung (T1), compost tea (T2), urea (T3), urea+ mono-ammonium salt f (T4), urea+ sucrose (T5), and a control (DOA recommendation; T6). Here, T1 and T2 were used as pesticides rather than fertilizers. Results disclosed the highest plant height (53.5 ± 6.8 cm) on 90 DAS (Days after sowing) in T4 whereas the lowest (38.9 ± 4.6 cm) in T2. The highest number of flowers at 60 DAS (21 ± 3 flowers) was recorded in T4, whereas the least (8 ± 2 flowers) was in T3. The highest number of pods per plant was in T4 (15 ± 3 pods), whereas the least was in T3 (6 ± 2 pods). The maximum pod length (6.8 ± 2 cm) was in T4, while the least (4.4 ± 3 cm) was in T3. The highest seeds/pod (87 ± 12 seeds) was in T4, and the least (47 ± 13 seeds) was in T3. Among the treatments, T4 recorded the highest average pod weight (12.5 g), and the lowest (5.1 g) was in T3. The highest yield per plant (2.8 g) was in T4, whereas the least (2.1 g) was in T3. The highest final yield was in T4 (5.6 t/ha), whereas the lowest was in T3 (4.2 t/ha). There was a significant ($p < 0.05$) difference in T4 with control ($\tau_1 - \tau_2 = 0.8 > \text{LSD} = 0.6$). Hence urea+ mono-ammonium salt foliar spray was the best foliar treatment that can apply under the DOA recommendation to get better growth and yield performance in MI-Green chilli.

Keywords: Chillies, Compost Tea, Cow dung spray, Foliar-Feeding, Urea and sucrose spray