

**THE EFFECT OF ZINC SULPHATE AND MAGNESIUM SULPHATE
FERTILIZERS ON GROWTH AND YIELD PERFORMANCES OF *Capsicum
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Capsicum annum (Chili) is cultivated under both irrigated and rainfed conditions in Sri Lanka. The biggest constraint for Chili production in Sri Lanka is the Chili Leaf Curl Complex (CLCC), which causes a substantial yield loss during the *Yala* season. This study aimed to explore the efficacy of zinc sulphate and magnesium sulphate foliar fertilizers on the growth and yield of chili while addressing the said challenge. Four fertilizer combinations, T1-Department of Agriculture (DOA) recommendation (control), T2-DOA + magnesium sulphate foliar application, T3-DOA + zinc sulphate foliar application, and T4-DOA + magnesium sulphate + zinc sulphate foliar application, were tested. The experiment was laid out in an RCBD design with four replicates and 60 plants (plot size: 3 x 4.5 m) per replicate in *Galenbindunuwewa* area with six chili-cultivated farmers. Plant height, yield per plant of five harvests, number of pods per plant, and CLCC severity using the CLC index were measured in weekly intervals. Collected data were analyzed by using ANOVA and MS Excel. The results revealed that the plant height was significantly different ($p < 0.05$) among the treatments tested. The highest plant was recorded in T2, while the lowest plant growth was observed in control (T1). The highest yield was recorded in T2 and the lowest yield in T1. The highest number of pods per plant was recorded in T4. The severity of CLCC varied among treatments: T1 and T4 were highly susceptible, T2 was susceptible, and T3 was moderately resistant. In conclusion, the application of magnesium sulphate as a foliar application helps to increase the plant height and yield, and also it increases the resistance to the CLCC.

Keywords: Chili leaf curl complex, Disease severity, Fertilizer foliar application, Plant growth