

## FERTIGATION ON IMMATURE FRUIT DROP AND YIELD OF GHERKIN (*Cucumis anguria* L.)

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Cultivation of Gherkin has been recently introduced to greenhouse cash crop subsector in Sri Lanka. But it experiences low yields due to the immature fruit drop. The present study investigated the effect of different fertilizer formulae on immature fruit drop and yield of Gherkin under controlled environmental conditions. The study was conducted under glasshouse conditions at Dodangolla, mid country intermediate zone during Yala season 2013. The experiment was designed as Completely Randomized Design (CRD) with three treatments and four replicates. Treatments were Albert's solution with supplemental granular and foliar fertilizer (T<sub>1</sub>), Urea and Muriate of potash with supplementary Albert's and MgSO<sub>4</sub>/Ca (NO<sub>3</sub>)<sub>2</sub> (T<sub>2</sub>) and New formula (T<sub>3</sub>). Gherkin variety "Vertina" was used as the planting material and sand and coir dust (1: 1 mixture) was used as the potting media. Results revealed a significant (p<0.05) influence of fertigation on growth parameters. T<sub>1</sub> showed the highest vine length, leaf area, shoot dry weight and root dry weight compared to other two treatments. Similarly, T<sub>1</sub> showed significantly higher N P K contents in leaf samples but not in the potting media. Number of harvested fruits and fruit weight were significantly higher in T<sub>1</sub> (59 fruits/plant) than other treatments though immature fruit drop was not significantly different. Even though, fertigation treatments did not have significant effect on immature fruit drop of gherkin its influence on final fruit yield was revealed.

**Key words:** Albert's solution, Coir bag culture, Fertigation, Gherkin, Immature fruit drop