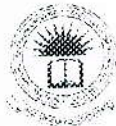


**EFFECT OF FOLIAR APPLICATION OF WILD
SUNFLOWER (*Tithonia diversifolia*) LEAF EXTRACT ON
GROWTH AND YIELD OF VEGETABLE COWPEA Cv.
BS-1 IN SANDY REGOSOL**



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ABSTRACT

A field experiment was carried out at the Crop Farm, Faculty of Agriculture, Eastern University of Sri Lanka, during the period of January to April 2019 to study the effect of different concentrations and application frequencies of Wild sunflower (*Tithonia diversifolia*) Leaf Extract (TLE) as a foliar application on growth and yield of vegetable cowpea Cv. BS-1.

The experiment was laid out in a Randomized Complete Block Design (RCBD) with 7 treatments and replicated three times. The treatments were; T0 - Control, T1 - 10% TLE at 1 week interval, T2 - 10% TLE at 2 weeks interval, T3 - 20% TLE at 1 week interval, T4 - 20% TLE at 2 weeks interval, T5 - 30% TLE at 1 week interval, T6 - 30% TLE at 2 weeks interval. The foliar application was carried out from 2 weeks after planting upto pod formation. Sampling was done at 4, 6, and 7 weeks after planting.

The results showed that the foliar application of TLE 30% at 2 weeks interval had a significant ($p < 0.05$) effect on the plant height, number of leaves, number of branches, number of effective nodules, length of roots, leaf area, leaf area index, fresh weight of pods, dry weight of leaves, dry weight of stem, dry weight of root, dry weight of total of plant, dry weight of pods, chlorophyll content and yield at different stages of the growth.

The results suggest that under the condition of this experiment yield could be increased by 22.22 % over the control treatment by the application of 30% at two weeks interval from 2 weeks after planting upto pod formation.

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