

## Effects of Selected Growth Regulators and Botanical Extracts on the Growth and Flowering of Anthurium (*Anthurium andreaeanum* L.)

S. Srikrishnah\* and S. Sutharsan

*Department of Crop Science, Eastern University, Vantharumoolai, Sri Lanka*

Anthurium is a popular tropical cut flower in Sri Lanka and mainly cultivated for the export market. There are many factors affecting growth and flowering of Anthurium. Growth regulators have significant effect on growth and flowering of cut flowers such as Anthurium. An experiment was conducted under a shade house to determine the effects of different growth regulators and botanical extracts on the growth and flowering of Anthurium in the Crop Farm, Eastern University, Sri Lanka. Five treatments namely, T1: Control, T2: Ethylene (480g E<sup>l</sup>), T3: Gibberellic Acid (100mg L<sup>-1</sup>), T4: Fruit tonic (5%) and T5: Seaweed (*Sargassum crussifolium* L.) extract (20%) were used. The experiment was arranged in a Completely Randomized Design with five replications. Recommended agronomic practices were followed uniformly for all treatments. Foliar application of growth regulators and botanicals were carried out in two weeks interval during flowering stage. Number of leaves and number of flowers per plant were measured at two weeks interval. Leaf area and plant biomass were measured at the end of the experiment. Analysis of Variance was performed to determine significant difference among treatments ( $p < 0.05$ ). Results revealed that seaweed extract applied showed significantly ( $p < 0.05$ ) higher values in the measured parameters than the other treatments. It could be due to the presence of macro and micro nutrients and the growth promoting substances in the *Sargassum crussifolium* L. seaweed extract. Seaweed extract could also act as a bio stimulant on Anthurium plants and increase growth and flowering. From the findings, it could be concluded that, application of Seaweed (*Sargassum crussifolium* L.) extract (20%) can be used to increase the growth and flowering in Anthurium.

**Keywords:** Biomass, Bio stimulant, Growth regulators, Leaf area, Seaweed extract