

EFFECT OF BIOFILMED BIOFERTILIZERS ON MITIGATING DISEASES OF ANTHURIUM

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Anthurium andreanum is one of the main cut flowers exported and grown for local market in Sri Lanka. The commercial cultivations of *A. andreanum* are highly susceptible to bacterial and fungal diseases such as tip burn, leaf spots and root rot. The disease control requires chemical pesticides while chemical fertilizers are necessary for optimum growth, development and yield. Thus commercial cultivations are burdened by high agrochemical cost. Further, reliance on agrochemicals pollute the environment. Therefore investigation was carried out to examine the potential of Biofilmed Biofertilizers (BFBFs) to control the tip burning and leaf spot diseases and optimum plant growth of *A. andreanum*. The five treatments were ($r=10$) 100% BFBFs, 100% chemical fertilizer, 50% chemical fertilizer, BFBFs with 50% chemical fertilizer and distilled water (was applied to control). The treatments were applied to two groups of plants; infected and healthy. The experiment design was a Complete Randomized Design with two factors. Plant growth and disease symptoms were evaluated and data were statistically analyzed by General Linear Model and Tukeys' post hoc using Minitab ($p<0.05$). None of the treatments were effective in controlling diseases of *A. andreanum*. However, root length and plant biomass were significantly ($p<0.05$) improved due to BFBF compared to the control. In conclusion, the BFBF improves plant growth of *A. andreanum* specifically root features.

Keywords: *Anthurium andreanum*, Biofilmed biofertilizer, Diseases, Root length