



Organic stimulants on the growth and yield of Anthurium (*Anthurium andraeum*) cv. VERDUN RED

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ABSTRACT

The perennial commercial cut flower anthurium is one among the top ten cut flower industry. It is a slow feeder, and supplementing the crop with organic components will aid in the growth and development of the plant. Studies were conducted to find out the effect of Integrated Nutrient Management in Anthurium cv. VERDUN RED at Horticultural Research Station, Tamil Nadu Agricultural University, Yercaud in 2006 and 2009. The experiment was taken up in Completely Randomized Design with eight treatments and three replications. The treatments consisted of foliar spray of Panchagavya, Manchurian tea and Vermiwash at 3% concentration and in combinations at fifteen days interval. The plants received a common basal dose (CBD) with FYM 200g/pot + decomposed coir compost 100g/pot + vermicompost 25 g/pot + Biofertilizers (VAM+ *Azospirillum*+ phosphate solubilising bacteria) @2g each/pot and *Trichoderma viride* 20g/pot at an interval of two months. The growth parameters, viz., leaf length (38.00 cm), leaf width (17.2 cm), petiole length (49.4 cm), petiole girth (2.11 cm), number of suckers (5) and all the economic traits i.e., floral parameters viz., early flowering (152.3 days) and number of spikes (9.4), spathe length (12.1 cm), spathe width (8.7 cm), spadix length (7.5 cm), stalk length (53.5cm), girth of stalk (1.9 cm), longevity of spike on plant (21.0 days), days to loss of lusture (16 days), days to spathe blueing (18 days) and days to spadix necrosis (19 days) were maximum in Common basal dose + 3% vermiwash.

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Key words : Anthurium, Panchagavya, Manchurian tea, Vermiwash, Organic stimulants

Anthurium, one of the top ten cut flowers in the commercial cut flowers industry is a native of tropical America. It is perennial and raised under shade nets for the production of export quality flower. It is a slow feeder and application of fertilizers in smaller quantities at frequent interval is beneficial.

The indiscriminate use of inorganic fertilizers is posing threat to soil health and environment. However, the use of chemical fertilizer is inevitable for the yield sustainability. Hence, it becomes necessary to optimize the use of chemical fertilizer which can be achieved by supplementing with organic components. The current trend is to explore the possibility of liquid biofertilizer through organic spray formulations. Inorganic manures like vermi compost maintain and enhance the quality of the growing media and conserves soil fertility, which is very important for sustainable agriculture. Very meagre work has been documented on the integrated use of organic and inorganic nutrient supplement in Anthurium.

With this in view, the study was attempted.

MATERIALS AND METHODS

The trial was taken up in the Anthurium cultivar Verdun Red as pot culture experiment between 2006 and 2009 at Horticultural Research Station, TNAU, Yercaud. The potting media consisted of peat soil 200g to which FYM 200g, decomposed coir compost 100g and Vermicompost 100g was added. To this media biofertilisers viz., VAM 2g, *Phosphobacteria* 2g and *Azospirillum* 2g and *Trichoderma viride* 20g were added and suckers of uniform age were selected and planted in the pots. The design adopted was Completely Randomized Design with eight treatments and replicated three times. The treatments consisted of T₁ - Common basal dose, T₂ - Common basal dose + 3% Manchurian Tea, T₃ - Common basal dose + 3% Panchagavya, T₄ - Common basal dose + 3% Panchagavya + 3% Manchurian Tea, T₅ - Common basal dose + 3% Vermiwash, T₆ -