



Research Paper

Article history :

Received : 01.03.2012

Revised : 19.08.2012

Accepted : 20.09.2012

Effect of different levels of fertigation on performance of cultivars of Anthurium

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ABSTRACT : In India anthurium cultivation under protected conditions is in primary stage and needs dissemination of technology. Flower production is influenced by supply of nutrients and varieties grown. Four levels of fertigation comprised of F_1 -9:9:18, F_2 -18:18:36, F_3 -27:27:54, F_4 -36:36:72 g NPK/plant/year and two cultivars viz., V_1 -Esmeraldy, V_2 -Flame, with eight treatment combinations were studied. The fertigation level of F_4 was found to be the best than all other treatments expressing superior biometric and floral characters such as number of leaves /plant(16.98), plant height (57.58 cm), plant spread(56.48cm), number of suckers/plant(2.10), stalk length (49.06cm), Spathe length(10..85cm), Spathe width(9.75cm), Spadix diameter (0.79cm), number of flowers/plant(8.83cm) and vase life(13.40days). There was descending trend in values of these characters from F_4 - F_1 . Among the varieties cv. ESMERALDY (V_1) performed better than cv. FLAME (V_2) in all characters. The results indicated that growth parameters viz., mean number of leaves (15.22), plant height (56.52cm), plant spread (56.98cm), stalk length (50.44cm), spathe length (9.95cm), Spathe width (8.98cm), Spadix length (7.95cm), spadix diameter (0.74cm), number of flowers/plant/year (8.61) and vase life (13.47days) were significantly superior in (V_1). The treatment combination of F_4V_1 was found to be the best among all other interactions.

KEY WORDS : Cost effective polyhouses, Cultivar, Biometric characters, Floral characters, Vaselife

HOW TO CITE THIS ARTICLE : Jadhav, Giridhar, Ambad, Shriram N., Hongal, Shivanand and Hiremath, Viresh (2012). Effect of different levels of fertigation on performance of cultivars of Anthurium, *Asian J. Hort.*, 7(2) : 276-280.

Anthurium is the most attractive and loveliest flowers and is a native of America. The flowers are bold, long lasting and found in many beautiful colours. It has modified coloured leaf (spathe) and pencil like protrusion (spadix) born on leafless stalk or peduncle (Bhatt and Desai, 1989). Botanically it is called as *Anthurium andreanum* L. and belongs to the family Araceae. In India production of anthurium is in initial stage but has tremendous scope. Many growers, professionals, academicians, researchers and entrepreneurs are taking interest in cultivation of this crop. The anthurium is grown in the states of Kerala, Karnataka, Maharashtra, North Eastern States, parts of MP, Jharkhand, Himachal Pradesh and Chattishgarh. The flower has good demand in domestic and international market, which makes it economically viable crop.

RESEARCH METHODS

Looking towards the importance and scope for cultivation of anthurium research was carried out to study the nutritional requirement of the crop under protected conditions in Department of Horticulture, College of Agriculture, Pune under naturally ventilated cost effective polyhouse in semi shade conditions. The polyhouse size was 20x 5.0x4.0 m³ (length x breadth x height). It was semicircular and covered with the UV stabilized polyethylene film of 200 μ thickness and side curtains with provision to open and close vents as and when necessary. The shading net cover was also provided during summer to control light intensity. The mean annual min - max temperature and relative humidity during study was 12 - 30 degree centigrade and 60-90 per cent, respectively. The plants were grown in earthen pots of 20 cm top diameter. Four levels of fertigation (g NPK/plant/year) were applied viz., F_1 -9:9:18, F_2 -