



Effect of growth regulators and nutrients on growth and flowering of chrysanthemum cv. ZIPRI

A.V. TANNIRWAR, N.R. DANGE AND S.B. BRAHMANKAR

Tannirwar, A.V., Dange, N.R. and Brahmankar, S.B. (2011). Effect of growth regulators and nutrients on growth and flowering of chrysanthemum cv. ZIPRI, *Asian J. Hort.*, 6 (1) : 269-270.

Key words : Chrysanthemum, Gibberellic acid, Cycocel, Maleic hydrazide

In Maharashtra, chrysanthemum is cultivated in Pune, Nasik, Ahmadnagar, Sangli, Solapur and Nagpur. Chrysanthemum plants are perennial, medium to dwarf in height, vigorous and bear flowers of various forms and attractive colours. Zipri, the prominent local cultivar of perennial chrysanthemum, is being grown on large scale in Maharashtra as a commercial crop (Damake *et al.*, 1997). Generally, chrysanthemum are planted in rainy season and bloom during winter months particularly in December. The flowers in the market during this period are plentiful, thereby, bringing less monetary returns to the growers. The commercial grower, therefore, needs the new technique which helps to bloom at different period for maintaining the steady supply of flowers to the market over longer span so as to obtain more economic returns. Therefore, the present study was undertaken to study the effect of growth regulators and nutrients on growth and flowering of chrysanthemum.

The investigation was carried out at Botanical Garden, Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola situated at the latitude of approximately 22.42°N, Longitude 77.02°E. The soil of the experimental farm was medium type with uniform texture with good drainage. The treatments included gibberellic acid 50 ppm, 100ppm, 200ppm, maleic hydrazide

250ppm, 500 ppm, 1000 ppm, cycocel 2000 ppm, 5000 ppm, 8000 ppm and 0.3% foliar spray of NPK consisted of dihydrogen ammonium phosphate, urea, potassium phosphate and potassium nitrate in the proportion of 1:2:1(w/w) + 0.2% of spray of trace elements consisted of MgSO₄, MnSO₄, FeSO₄, and borax in the proportion of 4:3:2:1 (w/w). The growth regulator solution of different concentrations was sprayed as per the treatment after 60 days of transplanting and nutrient spray was applied twice, one at 45 days and second 60 days after transplanting. The experiment was laid out in Randomized Block Design with three replications by keeping the plant spacing of 30 cm x 30 cm. The suckers of uniform growth were selected. The full dose of phosphorus and potash was applied at the time of planting and the nitrogen dose were applied in two splits, first dose of nitrogen at 15 days after transplanting and remaining half dose 45 days after transplanting.

The results from Table 1 indicated that the height of plant, number of branches were significantly influenced by the foliar application of gibberellic acid treatment from lower to higher dose and was significantly superior over all other treatments. Gibberellic acid increases plant height and number of branches by increasing the internodal length attributed to both cell division and cell elongation. The results obtained in the present study are in close agreement with the findings

See end of the article for authors' affiliations

Correspondence to:

N.R. DANGE

Department of Horticulture
Dr. Panjabrao Deshmukh
Krishi Vidyapeeth, AKOLA
(M.S.) INDIA