



Research Paper

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Effect of different planting densities on performance of gerbera under polyhouse conditions

■ A.B. BHOSALE, M.R. DESHMUKH¹ AND R.L. TAKTE²

Members of the Research Forum

Associated Authors:

¹College of Horticulture, PUNE
(M.S.) INDIA

²Hi-tech Floriculture Project,
College of Agriculture, PUNE
(M.S.) INDIA

Author for correspondence :

A.B. BHOSALE

Department of Horticulture, NARP,
Zonal Agricultural Research Station
(M.P.K.V.), SOLAPUR (M.S.)
INDIA

Email : arunbhosale@rediffmail.com

ABSTRACT : Before a decade the concept of protective cultivation / polyhouse technology was introduced in India. Now-a-days it is popularized among the farmers in Maharashtra and some other States. The farmers have realized the importance of this technology and started cultivation of different floricultural, vegetable and fruit crops under the protective cover. Gerbera is one of the most important cash crop which requires less maintenance than the other floricultural crops. Planting density plays an important role in success of crop. In general the planting density should be such that it provides a congenial root environment and results in healthy growth of plants. Gerbera cultivation under polyhouse is quite popular in Maharashtra, but very meagre work related with the systematic study regarding the planting density has been reported. Planting density plays a vital role in influencing the quality of flowers as well as the incidence of diseases and pests. Keeping in view the importance of planting density on growth and quality of flowers the experiment was undertaken at Precision Farming Development Center, Mahatma Phule Krishi Vidyapeeth, Rahuri, Dist. Ahmednagar (M.S) continuously for three consecutive years on different planting densities viz., 30 x 30 cm, 30x 37.5 cm, 30x 45 cm, 37.5 x 37.5 cm and 45 x 45 cm. Plants grown at 30x 30 cm produced maximum flowers/ m²/ year (317.00) followed by 37.5 x 37.5 cm (304.17). The average stalk length, top diameter of flower and number of flowers /plant/ year were significantly superior in 30x 30 cm. Among the varieties cultivar Diablo proved to be the vigorous and yielded 335.63 flowers/ m²/ year.

KEY WORDS : Polyhouse, Gerbera, Planting density, Irrigation, Fertigation

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Gerbera commonly known as Transvaal Daisy, Barberton Daisy or African Daisy produces attractive flowers. It is an important commercial flower grown throughout the world in a wide range of climatic conditions. This is ideal for beds, borders, pots and rock gardens. The flowers are of various colours and suit very well in different floral arrangements. The cut blooms when placed in water last for a long time (Loeser, 1986). The genus *Gerbera* consists of about forty species of half hardy and perennial flowering plants (Bailey, 1963).

Greenhouse technology is becoming popular amongst the progressive cultivators. Land holding of cultivators is decreasing day by day due to increase in population. Taking into the consideration, the land holding of farmers and their

limited resources, the new technology may be suited to indigenous conditions and needs to be developed. Agricultural Ministry, Government of India has established the Precision Farming Development Centres to undertake the research on the use of plastics in agriculture. Precision Farming Development Centre, M.P.K.V., Rahuri (M.S.) is one of the centre.

Maharashtra is emerging as a one of the leading state in green house cultivation and also floriculture. Gerbera also called as a 'transvaal daisy' is one of the leading cut flower having single and double flowers. It belongs to the family Compositae and has a origin in South Africa and can be grown successfully in polyhouse. Planting density plays an important role in success of crop. In general the planting density should