



Research Note

Article history :

Received : 20.12.2012

Accepted : 16.05.2013

Effect of micro-nutrients sprays on growth and yield parameters of capsicum (*Capsicum annuum* var. *grossum*)

■ A.D. PATIL, D.S. PATIL¹, S.S. DHUMAL¹ AND P.B. GHODE²

Members of the Research Forum

Associated Authors:

¹Department of Horticulture,
Mahatma Phule Krishi Vidyapeeth,
Rahuri, AHMEDNAGAR (M.S.)
INDIA

²Department of Horticulture, Dr.
Panjabrao Deshmukh Krishi
Vidyapeeth, AKOLA (M.S.) INDIA

Author for correspondence :

A.D. PATIL

Department of Horticulture, College
of Agriculture, Kadegaon, SANGLI
(M.S.) INDIA

Email : patilak1976@rediffmail.com

ABSTRACT : In order to study the effect of micro-nutrients on growth and yield parameters of capsicum (*Capsicum annuum* var. *grossum*) a field experiment was conducted at chilli and vegetable research unit Dr. PDKV, Akola during *Kharif* season. Results of the experiment showed that the effect of micro-nutrients on yield attributing character such number of fruits per plant, yield per plot (kg) and yield per hectare (q) was significant. The yield per hectare was maximum in treatment T₁₂ (290.73) followed by treatment T₂ (272.37), T₆ (263.67) and T₄ (259.1). All these treatments were at par with each other. The maximum yield per hectare recorded in T₁₂ which might be due to combined effect of micro-nutrients on an average weight of fruit than other treatments.

KEY WORDS : *Capsicum annuum* var. *grossum*, Micro-nutrients, Quality attributes, Yield

HOW TO CITE THIS ARTICLE : Patil, A.D., Patil, D.S., Dhumal, S.S. and Ghode, P.B. (2013). Effect of micro-nutrients sprays on growth and yield parameters of capsicum (*Capsicum annuum* var. *grossum*), *Asian J. Hort.*, 8(1) : 379-380.

India is the second in vegetable production next to China by sharing 15.38% total world production of vegetable. India has large potential for growing number of vegetables. During 2009-2010 India produced 107.8 million tonnes of vegetables from 7.79 million ha. hand (Anonymous, 2010). The productivity being 16.60 tones/ha. Vegetable production in India inverses rapidly.

Application of micro-nutrients plays an important role in production of peppers. Navrot and Levin (1976) worked on effect of micro-nutrients on sweet papers and reported that the yield significantly increases and also Muthukrishanan *et al.* (1993) noted that micronutrient spray at an interval of 15 days increases in yield.

The field experiment was laid out in Randomized block design with three replications at chilli and vegetable research unit Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola during *Kharif* season. The layout consisted of 39 experimental units. The randomization was done in three replications as per method designed by Panse and Sukhatme (1967). Treatments were T₁ - ZnSO₄ (0.20%), T₂ - ZnSO₄ (0.40%), T₃ - MnSO₄ (0.10%), T₄ - MnSO₄ (0.20%), T₅ - CuSO₄ (0.10%), T₆ - CuSO₄ (0.20%), T₇ - FeSO₄ (0.20%), T₈ -

MnSO₄ (0.40%), T₉ - H₃BO₄ (0.10%), T₁₀ - H₃BO₄ (0.10%), T₁₁ - Zn+Mn+Cu+Fe+B(0.35%), T₁₂ - Zn+Mn+Cu+Fe+B(0.70%) and T₁₃. Control -no-spray. The solution of micro nutrients *i.e.* zinc (0.20 and 0.40%) manganese (0.10 and 0.20%) iron (0.20 and 0.40%) copper (0.10 and 0.20%) and boron (0.10 and 0.20%) of different concentrations were prepared by weighing the required quantity of zinc sulphate, manganese sulphate, copper sulphate, ferrous sulphate, and boric acid, respectively and dissolving it in required quantity of water. Few drops of dilute HCl was added to FeSO₄ solution for complete solubility. The lime was added at rate of 50% of quantity used for zinc sulphate, manganese sulphate, copper sulphate and ferrous sulphate spray solutions to neutralize the acidity.

The first spray was given 30 days after transplanting and at 15 day's interval, second and third sprays were given by using Ganesh hand pump. Spraying was done in such a way that the plant was wet uniformly.

The data revealed there were significant effects of different treatments on number of fruits per plant. The data presented in Table 1 revealed that treatment T₂ was at par with treatment T₁, T₃ and T₈ were similar. Maximum number of fruits per plant were obtained in treatment T₂ (22.66), followed by