

Research  
Paper

## Effect of foliar spray of bio-enzymes on growth and flowering of brinjal (*Solanum melongena* L) cv. VAISHALI

S.D. JATURE, P.S. BHARADIYA, S.B. ROHIDAS AND A.S. PAWAR

See end of the article for authors' affiliations

Correspondence to :

**P.S. BHARADIYA,**  
Department of Horticulture,  
Rajiv Gandhi College of  
Agriculture, PARBHANI  
(M.S.) INDIA

### ABSTRACT

A field experiment was conducted during *Rabi*, 2002-2003 at Department of Horticulture, Marathwada Agriculture University, Parbhani. (M.S.). The result of the experiment revealed that spray of bio-enzymes enhanced the growth and flowering attributes in brinjal over control. Almost all bio-enzymes tried supercropzyme 2 ml l<sup>-1</sup> of water was significantly superior over all bio-enzymes and control. The highest growth attributes like plant height, number of branches per plant, number of leaves per plant, fresh weight of plant, dry weight of plant and days required for initiation of flowering, day required for 50 per cent flowering were obtained under the treatment T<sub>5</sub> (Supercropzyme 2 ml l<sup>-1</sup>) which was statistically at par with treatment T<sub>6</sub> (Supercropzyme 3 ml/lit). These treatments had a significant difference over rest of the treatments including control. Foliar spraying of supercropzyme 2 ml/lit produced highest plant height(70.13 cm) and minimum days required for initiation of flowering (40.53 days) after transplanting which was statistically significant over rest of the treatments including control. The treatment next in order was T<sub>6</sub> (Supercropzyme 3 ml/l of water).

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**Key words :** Bio-enzyme, Foliar spray, Growth, Flowering, Brinjal

### INTRODUCTION

Brinjal (*Solanum melongena* L.) is one of the most important solanaceous vegetable crop which is highly productive and easy to cultivate. It is originated in India and has been cultivated from long time. Being second major vegetable of India, area under cultivation was 4.96 lakhs hectare with production of 78.81 lakh tons (Chadha, 2001). The bio-enzymes are an extract of vegetable origin contains different concentration of growth regulators along with micro-nutrients. Bio-enzyme influences various stages of plant growth from vegetative growth and flowering. Application of bio-enzymes was found very effective in brinjal which increased vegetative growth and yield (Jadhav,2000) Keeping all this points in mind, an investigation was conducted to evaluated the effect of foliar spray of bio-enzyme on growth and flowering of brinjal cv. VAISHALI.

### MATERIALS AND METHODS

A field experiment was conducted during *Rabi*,

2002-2003 at Department of Horticulture, Marathwada Agriculture University, Parbhani. (M.S.). The experiment was laid out in randomized block design having 10 treatments of foliar spray of bio-enzymes including control with 3 replications, The treatments consisted of T<sub>1</sub>(1 ml/ l multizyme spray), T<sub>2</sub>(2 ml/l multizyme spray), T<sub>3</sub>(3 ml/l multizyme spray), T<sub>4</sub>(1 ml/l supercropzyme spray), T<sub>5</sub>(2 ml/ 1 supercropzyme spray), T<sub>6</sub>(3 ml/l supercropzyme spray), T<sub>7</sub>(1 ml/l shaktizyme spray), T<sub>8</sub>(2 ml/l shaktizyme spray), T<sub>9</sub>(3 ml/l shaktizyme spray), T<sub>10</sub>(Control water spray). Vaishali cultivars was used in experiment. The randomization of treatment was done with the help of random number table in 30 plots. The seeds sown on two raised beds treated with thirum 4 g per bed after germination. Seeding are sprayed twice with 15ml roger plus 25 g copper fungicide in 10 liter of water to protect form insect and diseases. Seeds were sown in shallow furrows prepared at 10-12 cm apart by dropping the seeds at 5-7 cm apart and at 1.5-2 cm depth. Five weeks old seedlings of brinjal were transplanted on 24<sup>th</sup> August, 2002 when average height of seedlings was about 10 cm. The