

## Effect of organic and inorganic manures on growth and yield of Chili

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### ABSTRACT

The present investigation entitled, "Effect of organic and inorganic manures on growth and yield of chilli", was conducted at All India Co-ordinate Research Project (Tropical Fruits), Dr. P. D. K. V., Akola (M.S.). The treatment of N125Kg / ha + FYM @10t/ha *Azospirillum* reported more plant height, number of braches per plant, days to first 50 per cent flowering, days to first harvest, number of fruits per plant, weight of individual fruit, fruit length and diameter, yield of wet red fruits, while least values for all above characters were recorded in control.

**KEY WORDS :** Organic, Inorganic, Chilli

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### INTRODUCTION

Chilli (*capsicum annum* L.) is used as vegetable and also condiment but the chief use of chilli throughout the world is as spice on account of its pungency and pleasant flavour. Due to high cost of inorganic fertilizers and residual effects of chemicals there is increasing trends towards organic farming. Chilli has gained importance as a commodity of international market, its production in India could not be achieved to a desired extent. For boosting production and for sustainable agriculture, integrated nutrient management approach is gaining importance. Keeping in view, the importance of organic and inorganic manures in sustainable vegetable production a field experiment was conducted to study the effect of organic and inorganic manures on growth and yield of chilli

### MATERIALS AND METHODS

The present investigation on effect of organic and inorganic manures on growth and yield of chilli was carried

out at All India co-ordinate Research Project, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.) during *Kharif* season of 2005-06. The experiment was laid out in Randomized Block Design with twelve treatments replicated thrice. The variety Jayanti was selected and planted at a spacing of 60cm x 60cm. The treatment details are

- T<sub>1</sub>: N150 kg/ha + FYM @ 10 t/ha (RDF) (control)
- T<sub>2</sub>: N150 kg/ha + FYM @ 10 t/ha + *Azospirillum*
- T<sub>3</sub>: N150 kg/ha + FYM @ 5 t/ha
- T<sub>4</sub>: N150 kg/ha + FYM @ 5 t/ha + *Azospirillum*
- T<sub>5</sub>: N125 kg/ha + FYM @ 10 t/ha
- T<sub>6</sub>: N125 kg/ha + FYM @ 10 t/ha + *Azospirillum*
- T<sub>7</sub>: N125 kg/ha + FYM @ 5 t/ha
- T<sub>8</sub>: N125 kg/ha + FYM @ 5 t/ha + *Azospirillum*
- T<sub>9</sub>: N100 kg/ha + FYM @ 10 t/ha
- T<sub>10</sub>: N100 kg/ha + FYM @ 10 t/ha + *Azospirillum*
- T<sub>11</sub>: N100 kg/ha + FYM @ 5 t/ha
- T<sub>12</sub>: N100 kg/ha + FYM @ 5 t/ha + *Azospirillum*

The treatment of biofertilizer *i.e.* *Azospirillum* was given to seedlings which were transplanted in T<sub>2</sub>, T<sub>4</sub>, T<sub>6</sub>, T<sub>8</sub>, T<sub>10</sub> and T<sub>12</sub> treatments plots. Roots of seedlings were dipped in the solution of *Azospirillum* for 10 min. The biometric observations, on plant height, diameter of stem (cm) number of braches per plant days to flower initiation, days to 50 per cent flowering, days required for first harvesting, number of fruits per plant, length of fruit (cm), breadth of fruit (cm), weight of fruit (g), wet red fruit yield, were recorded. The data of record were subjected to statistical analysis.

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