



**RESEARCH ARTICLE :**

## Assessment of integrated nutrient management on yield, quality and economics of chilli (*Capsicum annuum* L.)

■ **K.S. CHOUHAN, SATISH SINGH BAGHEL, KASHYAP MISHRA, AJEET KUMAR SINGH AND VIJAY SINGH**

**ARTICLE CHRONICLE :**

**Received :**

19.07.2017;

**Accepted :**

03.08.2017

**SUMMARY :** This study was aimed to assess the effects of integrated nutrient management on yield, quality and economics of chilli (*Capsicum annuum* L.). The present study was carried out during 2012 *Rabi* season at Research Farm, J.N.K.V.V. College of Agriculture, Tikamgarh, (M.P.), India with 10 treatment combinations ( $V_1I_1, V_1I_2, V_1I_3, V_1I_4, V_1I_5, V_2I_1, V_2I_2, V_2I_3, V_2I_4, V_2I_5$ , where  $V_1$  - Pusa Jwala,  $V_2$  - Garima -12 and INM factors,  $I_1$  - recommended dose of fertilizer (RDF) or Control (100:50:50 kg NPK ha<sup>-1</sup>),  $I_2$  - RDF + FYM (10 t ha<sup>-1</sup>),  $I_3$  - RDF + Vermicompost (2.5 t ha<sup>-1</sup>),  $I_4$  - RDF + Vesicular arbuscular mycorrhiza (VAM) @ 2 kg ha<sup>-1</sup>,  $I_5$  - RDF + *Azospirillum* in Factorial Randomized Block Design with 3 replications. Application of RDF + Vermicompost 2.5 tonnes ha<sup>-1</sup> showed significant increase in fruit yield plant<sup>-1</sup> (271.5 g) and fresh fruit yield of 6816 kg ha<sup>-1</sup>. Significantly the lowest fruit yield plant<sup>-1</sup> and fresh fruit yield of chilli (227.8 g and 4218 kg ha<sup>-1</sup>, respectively) was noticed in recommended dose of fertilizer (RDF) or Control (100:50:50 kg NPK ha<sup>-1</sup>). Combined application of RDF + Vermicompost 2.5 tonnes ha<sup>-1</sup> showed significant increase in ascorbic acid content (190.8 mg 100g<sup>-1</sup>) and in terms of benefit cost ratio was economical with highest net returns (181607 Rs. ha<sup>-1</sup>) and B:C (3.19). However lowest ascorbic acid content (170.8 mg 100g<sup>-1</sup>) and minimum net returns (95194 Rs. ha<sup>-1</sup>) was noticed in control (100:50:50 kg NPK ha<sup>-1</sup>) while, minimum B:C ratio (3.19) with  $I_2$ .

**KEY WORDS :**

FYM, Vermicompost, VAM, *Azospirillum*, Chilli, Ascorbic acid

**How to cite this article :** Chouhan, K.S., Baghel, Satish Singh, Mishra, Kashyap, Singh, Ajeet Kumar and Singh, Vijay (2017). Assessment of integrated nutrient management on yield, quality and economics of chilli (*Capsicum annuum* L.). *Agric. Update*, 12(TECHSEAR-7) : 1978-1982; DOI: 10.15740/HAS/AU/12.TECHSEAR(7)2017/1978-1982.

**Author for correspondence :**

**SATISH SINGH BAGHEL**

Jawaharlal Nehru Krishi  
Viswa Vidyalaya, College  
of Agriculture, REWA  
(M.P.) INDIA  
Email : [rewahortic@  
gmail.com](mailto:rewahortic@gmail.com)

See end of the article for  
authors' affiliations