

## Integrated nutrient management in pointed gourd (*Trichosanthes dioica* Roxb.) cv. LOCAL under South Gujarat conditions

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### SUMMARY

A field experiment was conducted at Regional Horticultural Research Station under an umbrella of Navsari Agricultural University, Navsari during the year of 2007-08, 2008-09 and 2009-10 to ascertain best blend of organic and inorganic nutrients for sustainable production of pointed gourd under South Gujarat conditions by utilizing the cultivar "LOCAL". A randomized block design was used with three replications which consisted of nine treatments viz., T<sub>1</sub> – 100 per cent RDF(120:60:40 NPK kg/ha), T<sub>2</sub> – FYM @ 20 t/ha, T<sub>3</sub> – bio compost @ 10 t/ha, T<sub>4</sub> – neem cake @ 5 t/ha, T<sub>5</sub> – vermi compost @ 10 t/ha, T<sub>6</sub> – 50 per cent RDF + FYM @ 20 t/ha, T<sub>7</sub> – 50 per cent RDF + Bio compost @ 10 t/ha, T<sub>8</sub> – 50 per cent RDF + neem cake @ 5 t/ha and T<sub>9</sub> - 50 per cent RDF + vermicompost @ 10 t/ha. On the basis of pooled analysis of the experimental findings as well as economics of different INM treatments it may be concluded that to obtain higher fruit yield of pointed gourd (17.93 t/ha) under INM system the vine should be fertilized with the combination of 50 per cent RDF (60:30:30 NPK kg/ha) along with 10 tones of bio-compost/ha.

**Key Words :** Pointed gourd, INM, Growth, Yield and economics

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The growing popularity of a vegetarian diet and the rising awareness of consumers about the importance of vegetable in a balanced diet have opened up huge market for vegetable crops both in the domestic and global front. At present, West Bengal ranks top in the total vegetable production in the country. Diverse agro-climatic zones, a pool

of progressive farmers, small farm holding and increased irrigation facility are the advantages for successful vegetable farming. However, the major concerns are low productivity, diminishing return from farming as a whole and lack of awareness among the farmers regarding scientific crop management and product quality.

India has made significant progress on the vegetable map of the world and accounts for about 12 per cent share in the world total vegetable production and is second only to China. It occupies an area of 79 m ha with the production of 129 m tonne under vegetable crops. India has the potential to be the horticulture heaven and plantation paradise.

Pointed gourd (*Trichosanthes dioica* Roxb.) belongs to the family Cucurbitaceae having the origin of Indo-Malayan region is a warmth-loving crop thus, thrives well under hot or moderately warm and humid climate and is widely grown in eastern Uttar Pradesh, Bihar, West Bengal, Assam, Orissa, Madhya Pradesh, in some parts of Maharashtra and Gujarat and some hilly tracts of Andhra Pradesh and Tamil Nadu. It is called as the 'King of gourd' because it is one of the most

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