

Research Article

DOI : 10.15740/HAS/AJSS/10.2/201-209

# Effect of integrated nutrient management on soil fertility and yield of okra in coastal region of Maharashtra

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Received : 02.09.2015; Revised : 07.10.2015; Accepted : 21.10.2015

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## Summary

Field experiment was conducted during *Kharif* season of 2007 with okra cv. PARBHANI KRANTI at Central Experiment Station, Wakawali to study the effect of integrated nutrient management on soil fertility and yield of okra in lateritic soil of coastal region of Maharashtra. There were nine treatment combinations replicated thrice in Randomized Block Design. The treatments comprised of recommended dose of NPK fertilizers (100:50:50), zinc sulphate @ 25 kg ha<sup>-1</sup>, borax @ 5 kg ha<sup>-1</sup>, FYM @ 10 t ha<sup>-1</sup> and *Azospirillum* @ 25 kg ha<sup>-1</sup>. The results of the experiment showed that application of recommended dose of NPK fertilizers plus biofertilizers along with zinc sulphate, borax and FYM significantly improved the soil physical properties such as bulk density, particle density and maximum water holding capacity. The available major and secondary nutrients, namely available nitrogen, phosphorus and potassium as well as exchangeable calcium and magnesium were significantly influenced due to this treatment. As far as micronutrients, namely available zinc and boron and bacterial count in soil was concerned, significantly higher values were observed due to application of integrated use of manure, fertilizers and biofertilizer. On the basis of results obtained during present investigation, it was observed that the integrated use of manure, fertilizers and biofertilizer is essential to improve soil health as well as yield of okra crop in lateritic soil of coastal region of Konkan in Maharashtra.

**Key words :** Lateritic soil, INM, Physico-chemical properties, Available nutrients, Okra yield

**How to cite this article :** Salvi, V.G., Shinde, Minal, Bhure, S.S. and Khanvilkar, M.H. (2015). Effect of integrated nutrient management on soil fertility and yield of okra in coastal region of Maharashtra. *Asian J. Soil Sci.*, **10**(2) : 201-209.