



RESEARCH PAPER

Influence of bio-fertilizers in combination with chemical fertilizers on growth, flowering and yield of mango (*Mangifera indica* L.) cv. AMRAPALI

D.S. Nehete* and R.G. Jadav

Department of Horticulture, B. A. College of Agriculture, Anand Agricultural University, Anand (Gujarat) India
(Email: nehetedhiraj@gmail.com)

Abstract : A field experiment was conducted to find out most appropriate combination of bio-fertilizers and chemical fertilizers for mango production during 2011 - 13 at the Horticultural Research Farm, Department of Horticulture, B. A. College of Agriculture, Anand Agricultural University, Anand. The trial was laid out in Randomized Block Design, replicated thrice, with thirteen treatments including control. It was found that the application of 100% N + 85% P₂O₅ + *Azotobacter* + PSB (T₆) significantly increased tree height (m) at initial and harvesting stage, tree spread N- S (m) at initial and harvesting stage and canopy volume (m³) at initial stage, whereas tree spread E - W at harvesting stage and canopy volume (m³) at harvesting stage was found superior with 100% N + 100% P₂O₅ + *Azotobacter* + PSB (T₄). The application of 85% N + 85% P₂O₅ + *Azotobacter* + PSB (T₁₀) appeared as the most suited combination for providing maximum number of panicles per branch, length of panicle (cm), number of flowers per panicle, sex ratio, total chlorophyll content of leaf (mg/g) at 50 per cent flowering and before harvesting, leaf area (cm²) at 50 per cent flowering and before harvesting, marketable fruit weight (g), number of fruits per tree and fruit yield (kg/tree). Shelf- life (days) and fruit volume (cc) significantly increased with 70% N + 85% P₂O₅ + *Azotobacter* + PSB (T₁₃). Tree spread E - W at initial stage was found non- significant. Treatment 85% N + 85% P₂O₅ + *Azotobacter* + PSB proved as the next better treatment followed by 100% RDF.

Key Words : Mango, Growth, Flowering, Yield, Amrapali

View Point Article : Nehete, D.S. and Jadav, R.G. (2019). Influence of bio-fertilizers in combination with chemical fertilizers on growth, flowering and yield of mango (*Mangifera indica* L.) cv. AMRAPALI. *Internat. J. agric. Sci.*, **15** (2) : 233-238, DOI:10.15740/HAS/IJAS/15.2/233-238. Copyright@2019: Hind Agri-Horticultural Society.

Article History : Received : 23.01.2019; Revised : 02.05.2019; Accepted : 09.05.2019