



Integrated approach for nutrient management in guava cv. L-49 under Malwa Plateau conditions of Madhya Pradesh

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Abstract : An experiment was conducted during 2011-2012 at the Department of Fruit Science, K.N.K. College of Horticulture, Mandsaur (M.P.) on seven year old guava tree cv. L-49 with two levels of nitrogen *i.e.*, 600 g N (100% N) and 450 g N (75% N), two levels of phosphorus *i.e.*, 400 g P_2O_5 (100% P_2O_5) and 300 g P_2O_5 (75% P_2O_5) and a common dose of potassium *i.e.*, 300 g K_2O and 30 g each of *Azospirillum* and PSB inoculation and 10 kg Vermicompost. The results revealed that the application of 100% N + 100% P_2O_5 + *Azospirillum* + PSB + 10 kg vermicompost (T_9) significantly influence the morpho-physical, reproductive and quality parameters of guava. Maximum increase in plant height (0.65 m), canopy spread N-S direction (0.92 m) and E-W direction (1.00 m), maximum fruit length (7.52 cm) and fruit diameter (7.91 cm) at harvest, fruit volume (217.41 ml), maximum fruit setting (79.56%), minimum fruit drop (20.41%), maximum fruit retention (79.59%), average fruit weight (220.37 g), number of fruits per tree (384), TSS (11.67 °Brix), total sugar (8.06%), reducing sugar (4.17%), non-reducing sugar (3.89%), pectin (0.81%), ascorbic acid (207.90 mg/100 g pulp) and lowest acidity (0.20%) were obtained with treatment T_9 . The combined application of recommended dose of NPK with vermicompost (10 kg) and biofertilizers (30 g /plant) gave significantly higher fruit yield per tree (84.66 kg) with higher B: C ratio (1:5.27).

Key Words : Guava, L-49, Integrated nutrient management, Yield, Quality

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