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## Effect of integrated nutrient management on growth parameters of sapota cv. Kalipatti under south-eastern conditions of Rajasthan

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### Abstract

For getting better growth of sapota plantation, the present investigation was conducted during 2012-14 to study the effect of integrated nutrient management on eight years old sapota orchard planted at 8m x 8m apart in silty clay loam of South-Eastern Rajasthan. Results revealed that the treatments with combined application of inorganic fertilizers (NPK), organic manures (FYM and vermicompost) and biofertilizers (*Azotobacter*, *Azospirillum* and *PSB*) sources of nutrients had significantly increased the different growth parameters of sapota over control (NPK *i.e.* 1000:500:500g/ plant) denoted as T<sub>1</sub>. Among different treatments, application of 2/3<sup>rd</sup> of T<sub>1</sub>+10 kg vermicompost +250g *Azospirillum* +250g *Azotobacter*/plant (T<sub>15</sub>) had significantly increased the shoot length (32.92 cm), shoot diameter (2.66 cm), number of leaves per shoot (29.00), girth of primary branches (4.02 cm) after 120 days of treatment application. The plant spread E-W (3.45 m) and plant spread N-S (3.43 m) at fruit harvest was also higher in this treatment (T<sub>15</sub>) on pooled basis. From the present investigation it is concluded that the 19 % higher shoot length could be increased with application of 2/3 quantity of recommended dose of fertilizers *i.e.* 1000:500:500 g NPK + 10 kg vermicompost +250g *Azospirillum* +250g *Azotobacter*/plant (T<sub>15</sub>) in Sapota cv. Kalipatti over the control.

**Keywords:** *Acharas zapota*, integrated nutrient management, shoot length, plant spread, Number of leaves