



## RESEARCH PAPER

# Performance of high density planting of mango (*Mangifera indica* L.) under mid-western plain zone of Uttar Pradesh

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**Abstract :** An experiment was conducted at Zonal Research Centre –Nagina (Bijnor)-246 762(U.P.) during 2000 to evaluate the performance of high density planting of mango (*Mangifera indica* L.). The mango variety Dashehari scion wood of 20-22cm grafted on seedling rootstock in July 1999 were planted at Horticulture Section in August, 2000 at two spacing viz., 10m × 10m (100 plants/ha-normal density) and 3.0m × 3.0 (1111 plants/ha-high density). Five grafts were planted in normal density and 160 grafts were planted in high density employing about 0.1940 ha area. Grafts in normal density were planted at marked points prepared by pit digging (1×1×1m) and then by filling the pits with dug soil mixed with 100 g N, 75 g P<sub>2</sub>O<sub>5</sub> and 75 g K<sub>2</sub>O fertilizer mixture, whereas grafts in high density were planted directly with the use of fertilizers containing 100 kg N, 75 kg P<sub>2</sub>O<sub>5</sub> and 75kg K<sub>2</sub>O/ha. Normal package of practices was applied in both the system of plantings. The plant height (5.30m) was recorded under normal planting whereas it was found little different in high density of mango at 11<sup>th</sup> year of their planting. The stem girth under normal system was noted as 55.7cm whereas, it was slightly reduced to 50.7cm under high density of planting. The expansion of East-West and North-South direction both were recorded same as 3.10m and 3.03m in normal planting and high density planting, respectively. The fruit yield 22.30q/ha was noted under normal density of planting whereas, it was 242.20q/ha at 5<sup>th</sup> year of planting under high density planting system. The fruit yield ranged from 22.30 to 109.80 q/ha from 5<sup>th</sup> year to 11<sup>th</sup> year, respectively under normal system of planting whereas it ranged from 242.2 to 1093.22q/ha under HDP system of planting. The observations showed that the fruit yield ratio of normal system of planting to HDP were 1:10.86, 1:9.92, 1:9.90, 1:8.67, 1:9.80, 1:9.27 and 1:9.95 from 5<sup>th</sup> year to 11<sup>th</sup> year of age, respectively. So, it is a very informative and need of the hour to plant HDP system of mango just to get 9 to 10 times more yield for increasing mango productivity and to reach the king of fruit to the common people.

**Key Words :** High density planting, *Mangifera indica*, Mango

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