



Studies on growth behavior and quality characteristics of some mango varieties in Kymore plateau

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ABSTRACT

Fifteen mango varieties collected from various parts of India were studied for growth characteristics and bio-chemical composition of fruits at fruit research station at Rewa during period of 2000-2005. The overall rating score of variety Langra was the highest followed by Sunderja a local variety of Kymore Plateau finding its origin at Govindgarah fifteen kilometer from research station for its size, sweetness, aroma, pulp colour and acceptable acidity in association with other quality parameter. Varieties Chausa, Mallika, Dashehari, and Amrapali were also found to be good for table purpose cultivar, Banglora for processing and Rumani for pickle purpose.

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Mango (*Magifera indica* L.) is an important fruit crop of Madhya Pradesh covering a vast area above 25000 hectares (Shrivastva, 1983). The state is bulk producer of Mango. The major area under mango consists of unidentified or local seedlings type which requires larger area and production of larger fruit is low. Promising mango varieties are grown in deferent parts of country comprising of 1500 varieties (Shrivastva, 1983) which are in plantation for development of mango culture. It is therefore, necessary to find out suitable varieties for Madhya Pradesh and more specific the Kymore Plateau. Much work has already been done on yield characteristics. The present investigation was planned keeping in view physio-chemical quality attributes along with the growth behavior for identification of promising varieties for Agro-processing and table purpose.

MATERIALS AND METHODS

Fifteen prominent Mango varieties obtained from different agro-climatic sectors of country have been raised using seedling tree root stock, the scion material was obtained from identified centres. The present investigation was planned in Randomized Block Design consisting of 15 varieties in four replications, the distance between plant to plant was maintained 10 m x 10 m. The performance of these varieties was evaluated interms of vegetative growth characteristics and physio-chemical

characteristics of fruit for two successive fruiting years.

RESULTS AND DISCUSSION

The results obtained from the present investigation are summarized below :

Vegetative growth and characters:

The average height of mango cultivar under test was observed to be 3.34m, the plants with heights above the computed average were grouped under taller plants consisting of Langra, Chausa, Malda, Mallika, Sunderja, Banglora, Rumani in the descending order of plant height ranging between 3.91 – 3.36m. The remaining varieties below the average were found in between 2.87 – 3.27m in ascending order with Amrapali to Neelam. Langra was tallest and Amrapali the shortest in varieties under test. Although the canopy height of cultivar Chausa was more than that of Langra but the difference was negligible, the canopy height ranged between 2.09 – 2.76 m, the canopy height of Vanraj was found lowest amongst the fifteen varieties.

Average plant spread (N-S + E-W) was computed to be 3.32 m, the spread area of variety Langra was maximum, Mallika was at par to it followed by Chausa, Malda, Baneshan-Sunderja, ranging between 2.63-2.37m in descending order. The lower spreading characteristic exhibited by the varieties ranged between 2.07-2.31m in