

## STUDIES ON HARVEST MATURITY OF DASHEHARI AND LANGRA CULTIVARS OF MANGO GROWN UNDER THE SUBMONTANE REGION OF HIMACHAL PRADESH, INDIA

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### ABSTRACT

Studies were conducted to find out the appropriate harvesting time for 'Dashehari' and 'Langra' cultivars of mango under the sub-montane region of Himachal Pradesh. Fruits were harvested at weekly interval near maturity and were evaluated for different fruit physico-chemical characteristics. For Dashehari overall ideal time for fruit harvesting was found to be mid of July whereas for Langra cultivar it was 1<sup>st</sup> week of August

**Key words:** Physiological maturity, Harvesting time, Fruit physio-chemical characteristics, mango.

Mango has wide adaptability and thrives in a wide range of climatic and soil conditions. Its cultivation in Himachal Pradesh gained momentum during early eighties in the lower Shiwalik region. Horticulturists of the region are adopting its cultivation due to the remunerative price they are getting from the market; as mango grown in this region matures at a time when it is over from other parts of the country. The quality of harvested fruits and the subsequent return from the marketing of these fruits is greatly influenced by the stage of maturity at which the fruits are harvested. Due to lack of information on ideal stage of maturity and harvesting, growers of the region are not fetching the due returns. This issue was undertaken for study at Agricultural Technology Management Agency, Hamirpur (HP). It sponsored the Regional Horticultural and Forestry Research Station, Bhoti, Hamirpur (HP) to conduct studies on the proper maturity stages of Dashehari and Langra cultivars of Mango under low hill growing areas of Himachal Pradesh.

### MATERIALS AND METHODS

The studies were conducted in Hamirpur district which lies between 76° 16" to 76° 43" E longitudes and 31° 35' to 31° 55" N latitudes with an altitudinal variation of 500 to 1100 m above mean sea level. For these studies

four locations were selected with variable altitudes ranging from <600, 600-700, 700-800, 800-900 and above 900m amsl. Dashehari, Langra, Amrapali and Malika were the cultivars selected for the studies. In order to find out the correct stage of harvest maturity five dates of harvest were selected for each cultivars at weekly intervals. For Dashehari harvesting was started from first week of July. Whereas for Langra, Amrapali and Malika harvesting was started from Mid of July. Observations on various fruit physico-chemical characteristics were recorded at four days intervals as per standard procedures. All the physico-chemical and statistical analyses were done as per standard procedures described by Mazumdar (1986), AOAC (1995), Gomez and Gomez (1984).

### RESULTS AND DISCUSSION

The pooled data for different locations on various fruit and stone characteristics studied are presented in the Table 1. In case of Dashehari cultivar there was observed increase in fruit weight and TSS upto 4<sup>th</sup> week of July. Though, the increase in fruit size and specific gravity was upto 3<sup>rd</sup> week of July. Fruit acidity had decreasing trend with the delay in harvesting. Colour of the peel attained light yellow colour from 2<sup>nd</sup> week of July, whereas the colour of the pulp attained yellowness by 3<sup>rd</sup> week of July. Specific pattern was not observed as far as seed characteristics are concerned. Kernel attained complete white colour by 2<sup>nd</sup> week of July. Fruits when harvested during 2<sup>nd</sup> or 3<sup>rd</sup> week of July exhibited longer shelf life