THE ASIAN JOURNAL OF HORTICULTURE
Volume **8** | Issue 1 | June, 2013 | 39-42

Research Paper

Article history :
Received : 13.08.2012
Revised : 25.02.2013
Accepted : 10.03.2013

Variability in physico-chemical and sensory attributes of mango genotypes under rainfed conditions of Shivalik Foothills of Himalayas

PARSHANT BAKSHI, RAKESH KUMAR[1], A. JASROTIA[1] AND AKASH SHARMA[1]

Members of the Research Forum

Associated Authors:
[1]Division of Fruit Science, Sher-e-Kashmir University of Agricultural Sciences and Technology (J), Chatha, JAMMU (J&K) INDIA

Author for correspondence :
PARSHANT BAKSHI
Division of Fruit Science, Sher-e-Kashmir University of Agricultural Sciences and Technology (J), Chatha, JAMMU (J&K) INDIA
Email : bakshi_parshant@rediffmail.com

ABSTRACT : An investigation was carried out to evaluate the various mango genotypes on the basis of physico-chemical characteristics under rainfed areas of Jammu. Out of all the fifteen mango genotypes studied, the fruit weight was maximum in Mallika (182.16 g) and lowest in Selection-4 (64.83 g). Maximum fruit length (10.52 cm) and fruit breadth (6.98 cm) was observed in Mallika, whereas it was minimum in Selection-1 (5.26 cm and 4.22 cm, respectively). The pulp weight (117.15 g) and stone weight (35.60 g) was highest in Mallika, while Dashehari showed maximum pulp:stone ratio (3.90). Highest total soluble solids and acidity was recorded in Dashehari (20.250B) and Mallika (0.36 %). Dashehari showed maximum total sugars (16.63 %) and reducing sugar (5.02 %), while the pulp percentage was maximum in Mallika (71.48 %). For organoleptic rating, Dashehari was rated best in terms of colour, flavour, and taste over all the genotypes.

KEY WORDS : Mango, Physico-chemical characteristics, Organoleptic rating, Rainfed

HOW TO CITE THIS ARTICLE : Bakshi, Parshant, Kumar, Rakesh, Jasrotia, A. and Sharma, Akash (2013). Variability in physico-chemical and sensory attributes of mango genotypes under rainfed conditions of Shivalik Foothills of Himalayas, *Asian J. Hort.*, **8**(1) : 39-42.

Mango (*Mangifera indica* L.), popularly known as 'King' of fruits, is the choicest of all the indigenous fruits amongst millions of people. In India, it is an important fruit showing high heterozygosity and wide genetic variability (Vasugi *et al*., 2008). In India, mango occupies an area of 2.31 m hectare with a production of 15.03 m MT and productivity of 6.5 MT/ha (NHB, 2010). In Jammu and Kashmir, mango is grown in Jammu province over an area of 11.79 thousand hectare with an annual production of 42.28 thousand MT and productivity of 3.58 MT/ha (Anonymous, 2011) which is too low compared to national average. The probable reason for this low production is lack of knowledge about the cultivars suitable for rainfed conditions of Jammu. About 1000 varieties of mango available in India have not been fully exploited for their quality attributes which varies from region to region. The major problem faced by the mango growers is the selection of cultivars to be planted. The evaluation of mango varieties for rainfed conditions is one of the pre-requisite for successful mango cultivation (Singh and Singh, 1996). The information on varietal evaluation is scanty and no systematic work has been done to evaluate the mango germplasm for rainfed areas of Jammu. Local selections were made and evaluated on the basis of physico-chemical characteristics along with other cultivars introduced from PAU, Ludhiana and CCS HAU, Hisar to find out the suitable cultivar for cultivation in rainfed areas. The physico-chemical composition of the fruit also varies under different agro-climatic conditions (Kumar, 1997; Dhillon *et al*., 2004; Shivanandam *et al*., 2008). The physico-chemical and sensorial attributes of mango cultivated in rainfed areas of Jammu has not been studied so far. These attributes of fruits not only determine the quality of processed products but also the quality of planting material. Studies aimed to know the variation in the physico-chemical and sensorial attributes of fifteen mango genotypes and to find out the most suitable cultivar for rainfed conditions of Jammu.