



Research Paper

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Evaluation of mango-papaya blended pulp and its storage behaviour cv. Mallika, Amrapalli and Totapuri

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ABSTRACT : An experiment on evaluation of mango - papaya blended pulp and its storage behaviour was carried out at Fruit Processing Center, Department of Horticulture, B. A. College of Agriculture Anand during summer season in the year 2010. The experiment was laid out in Completely Randomized Block Design (Factorial) with twelve treatment combinations and replicated thrice. The treatment comprised of three varieties (V_1 -Mallika, V_2 -Amrapalli and V_3 -Totapuri) and four mango-papaya pulp proportions (T_1 -100% mango pulp (control), T_2 -85% mango pulp +15% papaya pulp, T_3 -70% mango pulp +30% papaya pulp and T_4 - 55% mango pulp +45% papaya pulp). Among different varieties, variety Amrapalli - V_2 recorded significantly the maximum TSS i.e. 17.84, 16.79 and 17.56 0B, ascorbic acid per cent i.e. 41.12, 41.18 and 41.13 per cent, reducing sugar i.e. 11.71, 11.70 and 11.65 and minimum acidity per cent i.e. 0.44, 0.46 and 0.44 per cent, respectively at initial, 3 and 6 month after storage. In case of blending of papaya pulp with mango pulp, treatment T_4 recorded significantly the maximum acidity per cent i.e. 0.76, 0.74 and 0.75, ascorbic acid contents i.e. 39.14, 39.12 and 39.18 mg/100ml, reducing sugar content i.e. 13.20, 13.12 and 13.12 per cent and total sugar content i.e. 23.49, 23.49 and 23.48 per cent, respectively at initial, 3 and 6 month after storage. Significantly maximum TSS i.e. 20.27 0B was found with interaction V_1T_1 (100% Mallika mango pulp), maximum pH i.e. 5.33 was found with V_3T_1 (100% Totapuri mango pulp), maximum acidity content i.e. 0.95 per cent with V_1T_4 (55% Mallika mango pulp + 45% papaya pulp) while minimum ascorbic acid content i.e. 19.37 mg/100 ml pulp with V_1T_1 inter-action (100% Mallika mango pulp) and highest reducing sugar content i.e. 16.33 per cent was found in interaction V_2T_4 (55% Amrapalli mango pulp + 45% papaya pulp) at 6 month after storage.

KEY WORDS : Mango-papaya blended pulp, Storage

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Mango (*Mangifera indica* L.) is grown almost in 63 countries around the world and occupies a unique place among the fruits in India. It belongs to genus *Mangifera* and family *Anacardiaceae*, originated in South-east Asia at early date. Mukherjee (1953) reported that this genus had its origin in the continental region of Burma, Thailand, Indo-China and Malaysia peninsula. Mangoes possessing the pride position in tropical and subtropical regional, between 23° North and South latitude.

It is considered as best fruits of the world by virtue of its flavour, delicious taste, delicate fragrance, attractive colour, so it is also known as “King of fruit”.

There are 41 valid species of *Mangifera*, which are

distributed throughout the world. The total area under mango crop was estimated to be 2312 thousand ha. with a production of 15027 thousand metric tonnes per annum in 2009-2010 (Anonymous, 2010). As per FAO estimates, India produced about 10 million metric tonnes of mango. The major fruit growing states are Uttar Pradesh, Karnataka, Bihar, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Orissa, West Bengal and Gujarat. Area in Gujarat was 121.5 thousand hectares under mango cultivation which produced 856.7 thousand metric tonnes of mango fruits (Anonymous, 2010).

Fruit beverages are highly nutritive, refreshing, thirst quenching, appetizing and easily digestible. Squash, nectar and other forms of ready-to-serve (RTS) beverages are