

**Evaluation of Chemical and Sensory Qualities of Mixed Fruit Jam Made from Blended Pineapple and Papaya Incorporated with *Aloe Vera***

Basary M. R. H.<sup>1</sup>, Premakumar K.<sup>1</sup>, Afreen S. M. M. S.<sup>1</sup> 

**Abstract**

In the current world, a pattern towards advancement and utilization of *Aloe vera* based food has picked up consideration among individuals for sound health. Centering this idea as a goal, research was led to create blended mixed fruit jam by incorporating *Aloe vera* (*Aloe barbadensis*) with two significant fruits in Sri Lanka; pineapple (*Ananas comosus*) and papaya (*Carica papaya*). Considering the choices of a few fundamental examinations, different combined mixtures of *Aloe vera* with pineapple and papaya were mixed in the ratios (w/w) of 150:150: 00 (T1), 150: 150: 5 (T2), 150:150:10 (T3), 150:150: 15 (T4) and 150:150:20 (T5) and processed into jams in CRD (Completely Randomized Design) with five repetitions. The freshly made mixed fruit jams were analysed for nutritional characters and organoleptic parameters. The physico-chemical parameters such as pH, titrable acidity, total soluble solid, sugar content, ascorbic acid were analyzed. Sensory evaluation was done on a five-point hedonic scale - the taste, colour, aroma, texture and overall acceptability of the products have been assessed. Chemical analysis revealed that incorporated *Aloe vera* mixed fruit jam mean value for titratable acidity (2.10 %-1.27 %) and total sugar (47.58 %-38.04 %) diminished while ascorbic acid (6.04 -12.54 mg/100 ml), pH (4.09-4.36), TSS (68.54<sup>0</sup> Brix-78.34<sup>0</sup> Brix), moisture content (30.81%-36.25 %) were increased with the increase of *Aloe vera* pulps. The sensory qualities of freshly made mixed fruit jam supplemented with 15g *Aloe vera* was found to be much more acceptable in terms of texture, taste, aroma, and overall acceptance. The formulation of composite mixed fruit jam with higher chemical and organoleptic characteristics within the widely acknowledged standards were effective using a blend of 150g pineapple pulp, 150g papaya pulp, and 15g *Aloe vera* pulp (T4).

**Keywords:** *Aloe vera* based food, mixed jam, nutrient analysis, organoleptic qualities, treatment

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<sup>1</sup> Department of food science, Faculty of Agriculture, Eastern University of Sri Lanka, Sri Lanka

 Corresponding Author: afreen0899@gmail.com