

COMPARISON OF THE QUALITY OF FRUIT JUICES BEING SOLD IN LOCAL MARKETS OF LAHORE, PAKISTAN

Asad Nawaz¹, Shinawar Waseem Ali^{1*}, Muhammad Riaz², Zulfiqar Ahmad³

¹Institute of Agricultural Sciences, University of the Punjab, Quid-i-Azam Campus, 54590 Lahore, Pakistan

²Institute of Food Science and Nutrition, Bahauddin Zakariya University, Bosan Road nn, Multan, Pakistan

³University College of Agriculture and Environmental Sciences, The Islamia University of Bahawalpur, Hasilpur Road nn, Pakistan

*email: shinawar.iags@pu.edu.pk

Abstract

Tetra pack fruit juices have become an important part of human diet in relatively hot countries like Pakistan. However, the quality of these juices is not up to the mark in most of the cases. In the current study orange, mango and mixed juices of different brands being sold in the local markets of Lahore city in Pakistan were analyzed for their quality and safety, with reference to their physicochemical and microbial parameters.

The samples of mango, orange and mixed fruit tetra pack juices were collected from local market of Lahore city and immediately transferred to lab. The brix, total soluble solids (TSS), pH, ascorbic acid content and acidity etc., were determined by following the standard methods of AOAC (1990). While, total viable count, fecal coliforms, *Salmonella* sp. and *Staphylococcus aureus* were determined by following the standard methods of APHA (2005).

It was observed that most of the juices under study were not meeting the set standards i.e. having low Brix and ascorbic acid contents etc. Similarly, ash content of all juices was very low indicating a very low amount of pulp. Most of the parameters indicated poor quality and storage stability of more than 80% brands. The microbial analysis divulges the presence of fecal coliforms, *Salmonella* sp. and *Staphylococcus aureus* in different juices, indicating the poor hygiene as well as serious food safety threats to the consumers.

It is needed to enforce food quality and safety laws strictly so that health risk associated with consumption of fruit juices may be curtailed in Pakistan.

Key words: Tetra-pack Juices, Physico-chemical, Safety, Pakistan.