

Preparation of Nutrition Ready-to Serve Drink with No Added Preservatives from Selected Local Fruits.

Sarananda, K. H.¹, Thillakawardane, T. U.², Alexander, B.³

¹ Food Research Unit, Department of Agriculture

² Sri Lanka Council for Agricultural Research Policy, Ministry of Agriculture

³ Faculty of Vet Medicine and Animal Science, University of Peradeniya

sarahewa62@yahoo.com

Despite their qualities and properties such as taste, nutritional value and health benefits, certain fruits remain underutilized in diets and they are termed Under-Utilized Fruits (UUFs). Ready-To-Serve Fruit Drinks (RTSFDs) are popular/ fast-moving products in tropics. RTSFDs from UUFs will therefore be a solution to increase their utilization. Objective of this study was to produce RTSFDs from UUFs – *Flacourtia intermis* - Mauritius Plum (MP), *Elaeocarpus serratus* - Ceylon Olive (CO), *Tamarindus indica* - Tamarind (T), *Limonia acidissima* -Wood Apple (WA) and *Annona muricata* - Sour-Sop (SS) without artificial colours, flavours or preservatives, as they have long shelf-life.

RTSFDs are prepared by heat extraction of fruits in boiling sugar syrup (12° Brix) for 01 hour. Clear, colourful liquids were filtered, hot-filled into glass bottles, sealed and pasteurized. Overall acceptance was obtained by extracting MP whole fruit, CO – blended flesh, T and WA – flesh with seeds and SS – blended deseeded flesh in sugar syrup. RTSFDs had a pH value of 2.48 – 3.75 and high Titratable Acidity hence sugar/acid taste adjustment was made on sensory properties. Selected Brix values for RTSFDs from MP, CO, T, WA and SS were 21°, 18°, 21°, 18° and 15° respectively. MP required highest and SS the lowest levels of sugar. Fruit content of MP in RTSFD was low as only pigments and percentage of acids came to extract. RTSFD from T contained highest Carbohydrates while MP contained the lowest. Highest Proteins of RTSFD were in WA. Minerals of RTSFDs were between 1.0 – 1.86 mg/100 ml being CO highest. Sensory evaluation of RTSFDs at preparation and monthly evaluations for one year showed colour, odor, taste and overall acceptability were not significantly different. Total Plate Count of RTSFDs during the year remained below accepted level. Total Phenolic Content and Antioxidant Activity

were in range of 12.53 – 14.57 GAE mg/100 ml and 06.11 – 07.23 % respectively. Vitamin C was 0.15 – 0.70 mg/100 ml.

Colour, aroma and taste of UUFs taken into water extractions gave RTSFDs high acceptance. High acidity of RTSFDs maintained sterilized condition in package for long shelf-life. As RTSFDs contain nutritive/ health-beneficial compounds and free from health-hazardous chemicals, they are health-friendly. These five products are profitable to produce, hence can be recommended for commercial production.

Key words: *Fruit extractions; Ready-To-Serve drinks; Under-utilized fruits.*