

COMPARING “NO SUGAR ADDED” QUALITY IN COMMERCIALY AVAILABLE 100% FRUIT JUICES WITH EXTRACTED JUICE OF FRESH FRUITS

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This paper presents findings of an experiment for the comparison of sugar concentration in extracted juice of fresh fruits to that of commercially available 100% fruit juices with a “no sugar added” quality. The objective of the study was to find out if the sugar content of bottled 100% fruit juice with a “no sugar added” label is equivalent to that of extracted juices of fresh fruits. The reported study was performed to address the potential concern that commercially-bottled 100% fruit juices with “no sugar added” may contain higher sugar content than extracted juice of fresh fruit. The fruit juices that were tested included apple, orange and mango. All bottled juices and fresh fruits were purchased in commercial market. The juice content (of fresh fruit with equal weight) of apple, orange and mango was 53.4%, 57.4% and 40.8% respectively. The juice was extracted using mixture blender and three samples were tested for sugar concentration using a Brix refractometer. The same testing protocol was also applied to the bottled 100% fruit juice. The °Brix value of fresh fruits was ranged from 5.0-12.2, whereas, the °Brix value was 15 on average in all commercially available fruit juices. Application of the Mann-Whitney test on the experimental data showed statistically significant difference ($p > 0.05$). The results suggested that the sugar content in the commercially bottled 100% fruit juice with the “no sugar added” label is an inaccurate representation of sugar content in the freshly-extracted juice of the corresponding fruit.

Keywords: Sugar Content Analysis; Bottled Juice; Fresh Fruit Juice; 100%, Juice label; Brix Refractometer