

**COMPARATIVE STUDIES ON SOME
CONCENTRATES USED IN NON-ALCOHOLIC
BEVERAGES**

BY

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**B.Sc.(Food Technology) , Faculty of Agriculture,
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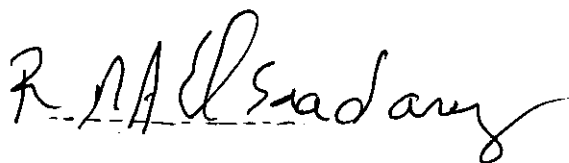
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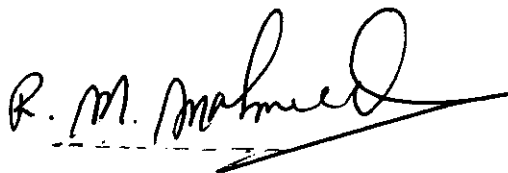
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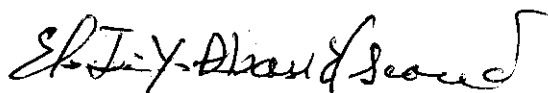
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ABSTRACT

Mohmed Salah El-Dein Osman Mohamed . Comparative studies on some concentrates used in non-alcoholic beverages . Unpublished Master of Science , Ain Shams University , Faculty of Agriculture , Department of Food Science (1998) .

The present investigation was carried out as an attempt to throw a light on the possibility of the utilization of orange , mandarin , lime , pomegranate , strawberry and mulberry juice concentrates in carbonated beverages as a natural flavoring , coloring agents and to increment the nutritive value of the product , instead of artificial one , which may be harmful when used in carbonated beverages .

The obtained data could be summarized as follows : Significant difference in TTA of most of concentrated juice could be detected . The concentration techniques used in this research caused a considerable increase in the TSS and TS of the concentrates . Evaporation and vacuum evaporation methods results in obtaining concentrates characterized by lower total bacterial count . The presence of coliform bacteria can't be detected in any of the samples during storage at $5^{\circ}\text{C} \pm 1$. The microbial quality of the treated water was found to be identical to the permissible levels recommended by ESS . The relation between the total ash and the individual constituents such as , potassium , sodium and phosphorus could be used for differentiation between the natural and artificial one . Significant differences are shown in TTA between the fresh carbonated beverages and those storage at room temperature up to six and nine weeks . No significant difference in gas volume of carbonated beverage which storage up to three or six weeks . All carbonated beverages were found to be free from coliform under all tested storage condition .

All the carbonated beverages made by using juices concentrated by evaporation or vacuum evaporation were characterized by acceptable sensory attributes up to nine weeks of storage at room temperature, except the samples which prepared by freezing concentration up to three weeks. Samples prepared from stored juice concentrated by evaporation or vacuum evaporation were found to free from yeast's, moulds and coliform under all tested storage conditions. Significant variations in sensory characteristics were found between all carbonated beverage which prepared from freshly concentrated juice or made from stored concentrates up to two or four or six months at $5^{\circ}\text{C} \pm 1$.

Key words :-

Carbonated beverages - procedure of concentration - fruit juice concentrates - Orange - Mandarin - Strawberry - Mulberry juices - Physical indices - Chemical constituents - Microbiological analysis - Organoleptic evaluation - Storage stability

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