PERMANENT REFERENCE

EVALUATION OF ICE CREAM QUALITY USING DIFFERENT TREATMENTS, DIFFERENT FLAVORS AND FRUITS AND IDENTIFY THE CONSUMPTION PATTERN OF MILK PRODUCTS IN BATTICALOA DISTRICT

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ABSTRACT

The study was carried out to examine quality of ice cream made from different treatments of milk, different types of flavor and different types of fruit and their combination, and also to study consumption pattern of milk products in the Batticaloa region.

Ice cream was produced by three types of treatment of milk as raw milk, hydrogen peroxide (H_2O_2) treated milk, and cooled milk, and with four types of added flavor namely vanilla, strawberry, coffee, and coco and two types of fruits namely papaw and banana. After processing products were stored at a temperature of-10 ^{0} C and – 20 ^{0} C. These ice cream products were examined for phenoleptic sensory characters, crystal formation, and bacterial contamination after processing.

At the storage temperature of – 10 ^{0} C mean values of taste, smell, structure, texture, and crystal formation were significantly ($p<0.05$) changed by different treatments of milk. Flavors and fruits significantly changed ($p<0.05$) the mean values of taste, smell, crystal formation, and overall eating quality of ice cream.

At the storage temperature of – 20 ^{0} C, mean values of taste, color, structure, texture, and crystal formation were significantly ($p<0.05$) changed among different types of treatments of milk. Flavor and fruits significantly ($p<0.05$) changed with means value of taste, smell, color, texture, and overall eating quality of the ice cream. When compared the both temperatures at – 10 ^{0} C and – 20 ^{0} C, crystal formation was only significantly ($p<0.05$) changed. Further different treatments of milk, flavors and fruits were significantly ($p<0.05$) changed all the sensory characters except crystal formation and overall quality.

Demand of milk products and cow hold at house level was associated with ($p<0.05$) each other. Milk products availability and milk product consumption pattern were significantly ($p<0.05$) associated on containers of milk products.

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