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Effect of storage on microbiological qualities and physicochemical properties of fresh fruits (water melon, orange, pineapple and apple) juice

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The microbiological qualities and physicochemical properties of fresh fruits (water lemon. orange, pineapple and apple) juice were investigated using standard methods. The juices were stored at 30 oC±1 from day 0 to day 20. The bacteria isolated were *Staphylococcus aureus, Bacillus subtilis, Bacillus cereus, Azotobacter chroococcum, Erwinia amylovora, Acinetobacter calcoaceticus, and the yeasts Saccharomyces cerevisiae, Pichia membranifaciens.* The total viable bacterial count orange juice ranged from 5×106-1.16×10⁸ cfu/ml, water melon 2×10⁶-1.27×10⁸ cfu/ml, pineapple 7×10⁶-1.04×10⁸ cfu/ml and apple ranged from 6×10⁶-2.6×10⁷ cfu/ml. The fungal counts of orange ranged from 0×10²-182×10² sfu/ml, water melon 0×10²-76×10² sfu/ml, pineapple 0.0×10² 1-182×10² sfu/ml and apple 0.0×10² -118×10² sfu/ml. The total viable counts of bacteria in all the fruits juice decreased with increase in fungal counts. Titratable acidity increased with the decrease in pH while other nutrients in the fruits juice also decreased. Juice obtained from fresh fruits contained microbes which potentially is hazardous to public health.

Biography

Oladapo Abiodun Sinmiat is currently pursuing her PhD from the Federal University of Technology, Akure, Ondo State, Nigeria. She is the current Head of the Department of Food Science and Technology, Osun State Polytechnic, Iree, Osun State, Nigeria. She has published 10 journals from reputable publishers.

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