Growth and distribution patterns of bacterial pathogens recovered from ready-to-eat (RTE) fruit salad from food vendors in Lagos, Nigeria.

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Abstract.
The bacteria associated with contamination of ready-to-eat (RTE) fruit salad samples obtained from four markets namely Yaba, Ikeja, Mushin and Oyingbo in Lagos, Nigeria were studied using standard microbiological methods. The objective of this study was to investigate the distribution of pathogenic bacteria recovered from RTE fruit salad in Lagos and assess bacteria load. The total aerobic and fecal coliform counts ranged from 1.50±0.5 x 10⁵ cfu/g to 1.52±0.04 x 10⁶ cfu/g and 5.0±0.5 x 10⁴ cfu/g to 1.49±0.09x10⁸ cfu/g respectively. The isolates were identified using morphological and biochemical tests. The results were analyzed using the one-way-ANOVA test. The test revealed that the average bacteria and coliform counts were not significantly different for the four markets, respectively. A further pairwise test also revealed that there was no significant difference between the markets. The predominant pathogenic bacteria associated with contamination of the RTE fruit salad were identified as E.coli (WO1); Klebisella sp (WO2); Proteus sp (WO3); Pseudomonas sp (WO4); Morganella morgani (WO5); Enterobacter sp (WO6); Staphylococcus aureus (coagulase +) (WO7) and Staphylococcus sp (coagulase-) (WO8). The presence of coliform and other bacteria in numbers exceeding the recommended microbiological standard is a reflection of unwholesome product, hence the need for proper microbiological safety analysis of fruit salad samples prepared for human consumption.

Keyword: Contamination, pathogenic, bacteria, ready-to-eat (RTE), fruit salad.

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