



NIGERIAN SOCIETY FOR MICROBIOLOGY (NSM) CONFERENCE 2019



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EFFECT OF STORAGE ON MICROBIAL QUALITIES OF LOCAL SPICES IN YEWA ENVIRONS OGUN STATE

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Acceptance of Abstract for NSM Conference 2019

I am glad to inform you that your abstract has been accepted and approved for presentation during the 42nd annual Nigerian Society for Microbiology (NSM) Conference, 2019.

Kindly proceed to the conference website at www.nsmconference2019.com to conclude your online registration. Kindly forward the details of your abstract handling fees on the registration page. No further processing until the abstract handling fee is paid.

Do note, however that you would be requested to pay the conference fee as stipulated on the website for you to conclude the registration.

Details of presentations days will be forwarded to you later and I hope to meet you at the NSM Conference, 2019.

Warmest greetings,

Adigun M.O. (PhD).

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NSM Conference, Ogun State 2019

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ABSTRACT

The Microbial and storage qualities of some food spices for two weeks were investigated; Negro pepper, locust beans, turmeric, Alligator Pepper and Nutmeg. Blends of the local spices was prepared and preserved at two different storage conditions; room temperature 28°C and refrigeration temperature 4°C (NPR – Negro pepper refrigerated and NPRO – Negro pepper room temperature), (LBR – Locust bean refrigerated and LBRO – Locust bean room temperature), (TMR – Tumeric refrigerated and TMRO – Tumeric room temperature) (APR Alligator Pepper Refrigerated and APRO - Alligator Pepper Room Temperature) (NMR Nutmeg Room Temperature and NMRO Nutmeg Room Temperature). The viable count ranged from $11.00 \pm 1.41 \times 10^3$ cfu/g to 55.00 ± 9.89 cfu/g. The NPRO had the lowest 11.00×10^3 cfu/g while LBR and TMR had the highest $210.00 \pm 14.14 \times 10^3$ cfu/g and $55.00 \pm 9.89 \times 10^3$ cfu/g respectively. The *Staphylococcus* count ranged from $5.50 \pm 2.17 \times 10^3$ to $186.50 \pm 16.26 \times 10^3$ cfu/g. The fungi count of the local species varied significantly $p < 0.05$ recorded increase in mold growth at refrigerated temperature while local spices stored at room temperature recorded low increase in mold growth. The molds detected were species of *Aspergillus*, *Mucor* and *Penicillium*. This implies that local spices can best be stored and preserved at room temperature to avoid microbial growth thus, improving the shelf life of the local spices. The result shows that storage and preservation of local spices at room temperature should be encouraged.

Keywords: microbial, qualities, spices, storage, temperature