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Utilization of Two Essential Oil Bearing Plants as Adjunct in Annatto Based Food Seasoning Formulations.

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Abstract

Utilization of lesser known plants through value added processing will increase their cultivation, reduce post-harvest losses and conserve Africa's rich biodiversity heritage. Two essential oil bearing plants were added separately with annatto seeds in formulation of food seasoning. Each of the food seasoning was added to cooked rice and cooked noodles. The proximate composition and level of mineral elements were quantified in the seasoning and cooked food. An appropriate dosage of the seasoning for cooking rice and noodles was established by sensory evaluation using hedonic scale. Proximate analysis revealed that OGANNAT (*Ocimum gratissimum* + Annatto seeds) and ECANNAT (*Eucalyptus citriodora* + Annatto seeds) formulated seasoning contain crude protein; 35.00 ± 0.12 , 31.21 ± 1.34 ; Crude fibre; 13.33 ± 1.15 , 21.33 ± 2.31 ; Ash; 13.00 ± 3.61 , 11.33 ± 1.15 and carbohydrate; 30.00 ± 3.00 , 26.79 ± 2.97 g/100g respectively. The levels of mineral elements were Iron; 198.90, 188.45; Potassium; 60.32, 66.02; Calcium; 22.39, 26.04; Sodium; 78.52, 73.24 and Manganese; 0.80, 0.90 ppm respectively. However, lead and cadmium were not detected in the formulated seasonings. OGANNAT was accepted for cooked rice and noodle at 5.6% and 2.78% respectively while 5.6% and 5.41% inclusion of ECANNAT was accepted for cooked rice and noodles respectively. Thus, it was shown that annatto based formulated seasoning could be a highly acceptable food enhancement product, a good source of nutrients, that could complement the existing seasoning of organic origin and replaced the chemical based food seasoning. This will promote sustainable agriculture and clean environment, promote good health and well-being (SDG3) and also responsible consumption and production (SDG12).

Keywords: Annatto, *Ocimum gratissimum*, *Eucalyptus citriodora*, Food seasoning, nutrients, sensory evaluation.

