

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
(((وَهُوَ الَّذِي سَخَّرَ لَكُمْ مِائِدَاتٍ مِّنْهُ لَكُمْ طَرِيقاً وَنَسَخَّرْجُوا مِنْهُ حَلِيبَةً تَلْبَسُونَهَا وَتَرَى
الْفُلُكَ مَوَاجِرَ فِيهِ وَلِتَبْتَغُوا مِنْ فَضْلِهِ وَلِعَلَّكُمْ تَشْكُرُونَ)))
صدق الله العظيم
الاية (14) سورة النحل

DEDICATION

I, DEDICATE THIS WORK ...TO:

MY...DEAR...FATHER

MY...DERA...MOTHER

MY...SECOND FATHER (BADRALDEEN)

MY...BROTHER

MY...SISTER

ALL....MY FRIENDS AND COLLEAGUES

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Researcher

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Abstract

This study dealt with the effect of hot smoke curing by using two type of hard wood (*Acacia seyal* and *Citrus lemon*) on the total viable counts bacteria (TVC) Physico - chemical composition and sensory evaluation of two species of fresh water fish (*Gymnarchus niloticus* and *Clarias lazera*) were purchase 10kg to any species from Khartoum Center Market. Brining in salt (5%). This study was analysis in lab of University of Alzaim Alazhari, Collage of Agriculture Department of Food Science and Technology.

The total viable counts bacteria in fresh fish used as raw material (*Gymnarchus niloticus* and *Clarias Lazera*) were 2.8×10^5 cfu/g & 2.4×10^5 cfu/g respectively. The bacteria were isolated before and after smoking was *Staphylococcus aurous*.

There was no significant difference ($P < 0.05$) between color of smoked (*Gymnarchus niloticus* and *Clarias lazera*) by use (*Acacia seyal* and *Citrus lemon*) under colour test using a Hunter lab colorimeter, while there is significant difference ($P < 0.05$) between fresh and smoked.

Highly significant difference ($P < 0.05$) were observed on the proximate composition between fresh and smoking by two types of wood (*Acacia seyal* and *Citrus lemon*), the percentage of total protein, lipid and ash contents increased due to decrease in moisture contents at the range of *Gymnarchus niloticus* (64.3 ± 0.183 to 62.4 ± 1.105) and *Clarias lazera* (64.15 ± 0.130 to 54.42 ± 0.173) smoked by (*Acacia seyal* and *Citrus lemon*) respectively.

With respect to the quality of the products related to colour, taste, texture and flavour, significant difference ($P < 0.05$) in the parameter measured was observed, generally the *C.lazera* treated by *Citrus lemon* appeared to be the most acceptable of all the products.

المستخلص

اجريت هذه الدراسة لمعرفة تأثير التدخين الحار باستعمال نوعين من الاخشاب الجافة (الليمون والطلح) على العدد الكلي للميكروبات والتركيب الفيزيائي و الكيمياء، والتقييم الحسي لنوعين من اسماك المياه العذبة (الوير والقرموط). تم شراء 10 كجم لكل نوع من السوق المركزي بالخرطوم وتم معاملتها بنسبة ملح (5%). تم اجراء التحليل لهذه العينات في معمل جامعة الزعيم الازهري كلية الزراعة قسم علوم وتكنولوجيا الاغذية.

وكان العدد الكلي للميكروبات لكل من سمك الوير الطازجة (2.8×10^5 cfu/g) وفي اسماك القرموط الطازجة (2.4×10^5 cfu/g) علي التوالي , بعد التدخين وصلالعدد الكلي للميكروبات في عينة سمك الوير الي (2×10^3 cfu/g) بينما في عينة سمك القرموط وصلت الي (3×10^3 cfu/g) والمبكتريا المعزولة قبل وبعد المتدخين هي (*Staphylococcus aureus*).

ليس هنالك اختلافا معنويا ($P < 0.05$) بين الملون-الداخلي والمخارجي (للوير والقرموط) المدخن (بالليمون والطلح) بينما هنالك اختلاف معنوي ($P < 0.05$) بين العينات الطازجة والمدخنة .

هنالك اختلاف معنوي ($P < 0.05$) في التركيب الكيمياء بين العينات الطازجة والمدخنة بنوعي من الاخشاب الجافة , حيث ان نسبة البروتين , الدهون و الرماد زادت كلما انخفض معدل الرطوبة حيث انها كانت في عينة اسماك الوير المدخنة بنوعين من الاخشاب (الليمون والطلح) وفي عينة القرموط المدخنة ايضا بنوعين من الاخشاب الجافة (64.3 ± 0.183 to 62.4 ± 1.105) وفي عينة القرموط المدخنة ايضا بنوعين من الاخشاب الجافة (64.15 ± 0.130 to $54.42 \pm 0.173\%$).

باجراء الاختبارات الحسية للون , الطعم, القوام والنكهة لعينات الوير والقرموط المدخنة (بالليمون والطلح) , لوحظ اختلافات معنوية ($P < 0.05$) بين العينات , الا ان عينة سمك القرموط المدخنة بالليمون كانت الافضل.