

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

بسم الله الرحمن الرحيم





MONA MAGHRABY



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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شبكة المعلومات الجامعية التوثيق الإلكترونى والميكروفيلم

جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



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Effect of chitosan and alginate edible coating incorporated with lauric arginate on chicken meat quality

Thesis Submitted by

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B.V.Sc., Cairo University, 2013

For the Degree of M.V.Sc. Hygiene and Control of Meat and its Products

Under Supervision of

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APPROVAL SHEET

This is to approve that thesis presented by Nada El Sayed Roshdi Abdelwahab

Entitled: Effect of chitosan and alginate edible coating incorporated with lauric arginate on chicken meat quality

For the degree of M.V.Sc. (Hygiene and Control Meat and its Products)

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Abstract

(**Keywords:** poultry meat; chitosan; alginate, lauric arginate; bacteriological, deterioration and sensory)

This study was carried out to investigate the effect of using chitosan and alginate edible coats and their incorporation with lauric arginate (LAE) at two different temperatures (25 °C and 50 °C) on the safety and quality of chicken drumsticks. Therefore, this study was divided into two part the first part coating of chicken drumsticks with chitosan edible coat (2%) alone or incorporated with LAE while 2nd part of the study coating of chicken drumsticks with alginate edible coat (2%) alone or incorporated with LAE. All treated and control untreated chicken drumsticks were exposed to bacteriological, deterioration and sensory examination. The results revealed that all treated chicken drumsticks resulted in significant (P < 0.05) reduction of all investigated bacterial counts, significant (P< 0.05) decreasing of pH and TBA values with significant (P < 0.05) improvement of all sensory attributes as compared with the control untreated samples. However, the most pronounced effect was recorded in chicken drumsticks samples coated with chitosan edible coat as compared with alginate edible coat. A better effect has been obtained by incorporation of LAE into chitosan or alginate edible coat. It was concluded that incorporation of LAE into chitosan or alginate edible coat can provide a relevant antimicrobial activity, used safely for successful decontamination of chicken carcass at the poultry processing plants, improve the stability of fresh poultry meat and therefore, they could solve some quality and safety issues in poultry meat processing plant.

Dedication

To the memory of my father

To my mother

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