

Dedication

To the soul of my Father (may Allah be merciful to him) who dedicated all his effort for my best.

To my beloved Mother who is always there for me and without her unconditional love and care I would never have made it.

To my sister and brothers who gave me the strength to look forward and believed in me and

to my colleagues who
supported me.

Acknowledgments

First and above all, I praise God, the almighty for providing me this opportunity and granting me the capability to proceed successfully. This thesis appears in its current form due to the assistance and guidance of several people. I would therefore like to offer my sincere thanks to all of them.

My supervisor **Prof. Mohamed Abdelsallam Abdalla**, dean of the College of Veterinary Medicine, University of Science and Technology, my esteemed promoter, my cordial thanks for accepting me as a MSc. student, your warm encouragement, thoughtful guidance, critical comments, and correction of the thesis.

I want to express my deep thanks to my esteemed co-promoter **Dr. Yassir Adam Shuaib**, College of Veterinary Medicine, University of Science and Technology for the trust, the insightful discussion, offering valuable advice, for your support during the whole period of the study, and especially for your patience and guidance during the writing process.

I am grateful to **Ngwa** for her excellent technical assistance in the Lab. and her kindly answers to my general questions.

Thanks also to all the members of Microbiology, Pathology and Parasitology for providing a good atmosphere; I would like to thank them for everything.

Acknowledgement is due to Department of Veterinary Preventive Medicine and Public Health, College of Veterinary Medicine, Sudan University of Science and Technology for supporting this research.

I cannot finish without thanking my family. My thanks and gratitude is due also to my mother for her encouragement and patience without which this work would not have been possible.

I warmly thank my brothers, sister for they have provided assistance in numerous ways and their material and spiritual support in all aspects of my life.

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Abstract

This thesis discusses the establishing the bacterial control points in a poultry slaughterhouse to determine if the points (after defeathering, after evisceration, after spray wash, after chilling and hands of workers.) are CCPs or not, to find out if there are significant differences between points in the production line and to investigate the prevalence of contaminating micro-organisms and evaluate these operations as possible critical control

points (CCPs) within a poultry slaughter hazard analysis and critical control point (HACCP) system .

Application of the H.A.C.C.P. system as a surveillance method of food safety depend on preliminary operations; among this, the most important is the establishing bacterial critical control points through food process.

The selection of control points is one of the most important steps in the design of a Hazard Analysis and Critical Control Points (HACCP) system.

The numbers of 90 samples were taken. 72 samples from poultry meat carcasses (back, breast and legs) and 18 samples from hands of workers (reholding 1, reholding 2 and packing) were collected randomly from modern poultry abattoir in Khartoum State, the Sudan.

Bacteriological analysis of Total Viable Count (TVC) revealed significant difference at *P-value* ($p \leq 0.05$) in CCPs.

The highest contamination level of the breasts, back and legs recorded was after defeathering .The isolated bacteria were *Escherichia coli*, *Salmonella* species, *Pseudomonas* species, *Shigella* species and *Staphylococcus aureus*.

ملخص الدراسة

هدفت الدراسة لإنشاء نقاط نقل في مجزر دواجن حديث لتحديد ما إذا كانت نقطة (بعد نزع الريش و بعد نزع الأضياء ، بعد الغسل ، بعد التبريد و أيي العمل .) هي نقاط تحكم الحرجة أم لا ، و لمعرفة وتقييم نسبة التلوث البكتيري ، عزل البكتريا لتعرف على الانواع الموجودة في خط الإنتاج للوقوف على مدى سلامة وجودة لحوم الدواجن ، وتقييم هذه العمليات بمثابة نقاط التحكم الحرجة .

نظام كوسيلة من وسائل الرقابة على الغذاء السلامة تعتمد على العمليات (H.A.C.C.P.) تطبيق الهاسب الأولية، وبين هذا، والأهم هو إقامة نقاط التحكم الحرجة البكتيرية من خلال عملية الغذاء.

اختيار نقطه التحكم هي واحدة من أهم الخطوات في تصميم نظام تحليل المخاطر و نقطه التحكم الحرجة (HACCP)

في هذه الدراسة ، تم أخذ عينات 90 . تم اخذ 72 عينة من لحوم الدواجن (الظهر ، الصدر و الارجل) و 18 عينات من أيي العمل (مكن اعادة التعليق 1, مكان اعادة التعليق 2 و التعبئة والتغليف) بشكل عشوائي من مسلخ الدواجن الحديثة في ولاية الخرطوم ، السودان . بعد انشاء النقطه الحرجة حسب نظام تحليل المخاطر وتحدد . النقطه الحرجة (الهلب) في مجزر حيث للدواجن بولاية الخرطوم

في نقطه التحكم الحرجة حيث اثبتت الدراسة ن ($P \leq 0.05$) -P وكشف تحليل البكتريولوجي فرق كبير في قيمة . أعلى مستوى تلوث الصدور والظهر و الساقين سجلت بعد ريشها

تم عزل من النقطه الحرجة انواع مختلفة من البكتريا شملت ,البكتيريا القولونية المعزولة(الشريل كولي) ، (السالمونيلا , الزائفة(سودومونس) ، الشيجلا و المكورات العنقودية الذهبية (الاستاف اوربوس