

Dedication

This Research work is lovingly dedicated to our respective parents who have been my constant source of inspiration. They have given me the drive and discipline to tackle any task with intense and determination. Without their love and support this project would not have been made possible.

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Thanks to the merciful Almighty Allah for helping me and giving me strength and health to accomplish the work

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Abstract

This study was conducted at Khartoum State . The study was designed to determine the effect of chilled temperature at 4°C for 3 days and the freezing temperature at -18°C for 5 weeks on the total viable count (TVC) of broiler meat. 100 samples were collected from broiler neck meat . 50 samples were used to examine the effect of chilling temperature and 50 samples in group of 10 samples at freezing temperature .

There was a significant increase in total viable count at 4°C. There was no significant increase in total viable count at -18°C.

Out of the **50** chilled samples of broiler meat kept at 4°C for three days, **16** samples (**32%**) were positive to *Pseudomonas spp.*, **12** samples (**24%**) were positive to *Staphylococcus spp.* , **7** samples (**14%**) were positive to *Escherichia coli*, **3** samples (**6%**) were positive to *Shigella spp.*, **4** samples (**8%**) were positive to *Streptococcus spp.*, **5** samples (**10%**) were positive to *Salmonella spp.* and **3** samples (**6%**) were positive to *Aeromonas spp.*

Out Of the **10** frozen samples of broiler meats kept at -18°C for five weeks, **17** samples (**34%**) were positive to *Pseudomonas spp.*, **13** samples (**26%**) were positive to *Staphylococcus spp.*, **12** samples (**24%**) were positive to *Escherichia coli*, **5** samples (**10%**) were positive to *Salmonella spp.*, and **3** samples (**6%**) were positive to *Aeromonas spp.*

ملخص البحث

تمت هذه الدراسة بمدينة الخرطوم - ولاية الخرطوم - جمهورية السودان ، هذا البحث كان الهدف منه تحديد أثر حرارة التبريد (4° مئوية) خلال 3 أيام ودرجة حرارة التثليج (-18° مئوية) خلال 5 أسابيع على العدد الكلي للبكتيريا الهوائية المعزولة من لحوم الدجاج . 100 عينة تم جمعها من لحم رقبة الدجاج المحفوظ في درجة حرارة 4° مئوية والمخفوظ في درجة حرارة -18° مئوية . 50 عينة تم استخدامها لمعرفة أثر درجة حرارة التبريد، و 50 عينة تم توزيعها إلى 5 مجموعات كل مجموعة مؤلفة من 10 عينات تم استخدامها لمعرفة أثر درجة حرارة التثليج.

كانت هناك زيادة معنوية في العدد البكتيري الكلي في درجة حرارة 4° مئوية ، لم تكن هناك زيادة معنوية في العدد البكتيري في درجة حرارة -18° مئوية .

من 50 عينة دجاج محفوظة بدرجة حرارة 4° مئوية لمدة 3 أيام : 16 عينة (32%) كانت موجبة للزوائف، 12 عينة (24%) كانت موجبة للمكورات العنقودية ، 7 عينات (14%) كانت موجبة لإشريكية القولونية ، 3 عينات (6%) كانت موجبة للشيجليات، 4 عينات (8%) كانت موجبة للمكورات السبحية ، 5 عينات (10%) كانت موجبة للسالمونيلا، 3 عينات (6%) كانت موجبة للغازيات .

من 10 عينات دجاج محفوظة بدرجة حرارة -18° مئوية لمدة 5 أسابيع : 17 عينة (34%) كانت موجبة للزوائف، 13 عينة (26%) كانت موجبة للمكورات العنقودية ، 12 عينة (24%) كانت موجبة لإشريكية القولونية ، 5 عينات (10%) كانت موجبة للسالمونيلا ، 3 عينات (6%) كانت موجبة للغازيات.