

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

الآیة

(وَإِنَّ لَكُمْ فِي الْأَنْعَامِ

لَعِبْرَةً <sup>صلى</sup> نُسْقِيكُم مِّمَّا فِي

بُطُونِهِ مِنْ بَيْنِ فَزْتٍ وَدَمٍ

لِّنَبِّئَا خَالِصًا سَائِغًا

لِّلشَّارِبِينَ )

صدق الله العظيم(سورة النحل) (66)

# **DEDICATION**

To my Family,

Teachers

And Colleagues.

NUHA

## ACKNOWLEDGMENTS

*I would like to thank my parents for all the love and support throughout the years, for great opportunities and providing me with financial assistance to come this far in my academic career.*

*To my brothers and sisters for their advices, and support.*

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## **Abstract**

This study was carried out to assessment yoghurt produced by using different type of stabilizers, sep- Nov- 2014 .Cow milk was collected from animal production dairy farm college of agricultural studies ,Sudan University of Science and Technology (Shambat). Fresh Cow milk was analyses and its total solids increased to 15% by using skim powder milk to improve the coagulation characteristic, and divided into 4 treatments ; pure milk , milk mixed with gelatin , milk mixed with Gum Arabic and milk mixed with Guar. Milk pasteurized at 80°C for 30 min , inoculated and incubated at 43°C for 3 hur .

Physiochemical properties of yoghurt were analyzed (pH , acidity) after incubation at 24h. The effect of different stabilizers on physiochemical characteristics were significant difference at ( $p \leq 0.05$ ).

Yoghurt made with gelatin as stabilizers has the highest level of moisture, ash, protein, fat, SNF, pH, Calcium and phosphorus. Yoghurt made with Gum Arabic has superiority in protein, fat, lactose, T.S and S.N.F, percentages after yoghurt made with gelatin, followed by control yoghurt.

The sensory evaluation of yoghurt made with different types of stabilizers were significant ( $p \leq 0.05$ ) in taste, flavor, smell, and overall acceptability, but had no significant ( $p \geq 0.05$ ) effect on texture and color. The best value for taste, flavor, smell, texture and overall acceptability were obtained by yoghurt made from Gelatin followed by yoghurt made from both Arabic gum and control yoghurt and the last one was yoghurt made from Guar gum.

## الخلاصة

اجريت هذه الدراسة لمعرفة أثر استخدام مثبتات مختلفة علي لزوجة وبعض خواص الزبادي تم جمع عينات التجربة من لبن الأبقار من مزرعة الانتاج الحيواني كلية الدراسات الزراعية جامعة السودان للعلوم و التكنولوجيا فى الفترة من سبتمبر إلى نوفمبر (2014) . تم تحليل اللبن الطازج و رفعت جوامده الكلية الي 15% بإضافة لبن باودر منزوع الدسم لتحسين خواص التخثر, وتم تقسيم اللبن الي اربعة عينات كالآتي : لبن صافي كعينه تحكم ,و تم خلط لبن بالجلاتين ,وخلط لبن بالصمغ العربي, واخر بالقوار و ذلك بعد بسترته لمدة 30 دقيقة في 80 درجة مئوية وتمت إضافة البادي له وادخاله الحضان في درجة حرارة 43 درجة مئوية لمدة 3 ساعات . وحلت عينات الزبادي لمعرفة الصفات الفيزيائية والكيميائية كما تم عمل اختبار التدوق . أظهرت النتائج فروقات معنوية عالية بين الزبادي المصنع بالجلاتين وبقية الأنواع الأخرى ( $p \geq 0.05$ ) الزبادي المصنع بالجلاتين افضل في الرطوبة والبروتين والدهون والجوامد الصلبة اللادهنية و الكالسيوم والفسفور ويأتي بعده الزبادي المصنع من الصمغ العربي حيث يوجد به نسبة عالية من البروتين والدهون واللاكتوز والجوامد الصلبة الدهنية والجوامد الصلبة اللا دهنية حيث تفوق علي الزبادي المصنع من القوار.

أظهرت النتائج فروقات معنوية في التذوق ( $p \geq 0.05$ ) في النكهة والرائحة والقبول العام, لكن لم يكن هنالك فروقات معنوية في اللون ( $p \geq 0.05$ ) والقوام. حيث كان زبادي المضاف اليه الجيلاتين الأفضل في القوام الطعم و النكهة و الرائحة و القبول العام و يليه الزبادي بالصمغ العربي والزبادي من غير اضافات وأخيرا الزبادي بالقوار.

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