

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

قال تعالى:

((لَا يُكَلِّفُ اللّٰهُ نَفْسًا إِلَّا وُسْعَهَا لَهَا مَا كَسَبَتْ وَعَلَيْهَا مَا
اَكْتَسَبَتْ رَبَّنَا لَا تُؤَاخِذْنَا إِنْ نَسِينَا أَوْ أَخْطَأْنَا رَبَّنَا وَلَا تَحْمِلْ عَلَيْنَا
إِصْرًا كَمَا حَمَلْتَهُ عَلَى الَّذِينَ مِنْ قَبْلِنَا رَبَّنَا وَلَا تُحْمِلْنَا مَا لَا طَاقَةَ
لَنَا بِهِ وَاعْفُ عَنَّا وَأَغْفِرْ لَنَا وَأَرْحَمْنَا أَنْتَ مَوْلَانَا فَانصُرْنَا عَلَى
الْقَوْمِ الْكَافِرِينَ))

صدق لله العظيم
سورة البقرة
(الآية رقم 286)

Dedication

To...

My Father soul,

Mother,

Sisters,

Brothers,

Friends,

And Fiancée,

With deep love.

Acknowledgement

First and finally, I thank my God ALLA who gave me the aptitude and patience to conduct and finish this study. I thank Dr. Shams El-den Hassab Alla Ahmed for his supervision and advice during this study, and I thank Dr. Shadia Abdel-ati for her continuous encouragement and advice.

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Abstract

The study was conducted to detect the effect of different degrees of heat treatment on dry matter degradation of two sources of the sesame cake extracted differently, using electrical power and other one works by camel

The dry matter degradation characteristics and its extent to be affected by the different degrees of heat treatment were studied and compared by using the nylon bag technique. Each sample was treated by different temperature degree, but the time was constant for all samples. The temperature degrees were 120, 140 and 160 C° respectively to two hours.

One fistulated bull was used to incubate the two types in rumen at different incubation periods 0, 6, 12, 24, 36, 48 and 72 hours.

The results of the proximate analysis of the two types of sesame cake showed that, no significant difference ($P < 0.01$) was detected between the two types of sesame cake in chemical composition.

The results showed that the sesame cake obtained from the extractor derived by camel had higher degradability characteristics through all different incubation periods than the sesame cake obtained from the extractor works mechanically by electrical power by different significant ($P < 0.01$). Moreover, it was found that the dry matter degradability was decreased when the degrees of heat treatment increased for both the two sources of sesame cake.

ملخص الأطروحة

أجريت هذه الدراسة لتحديد تأثير درجات مختلفة للمعالجة الحرارية على قابلية تكسير المادة الجافة لمصدرين من أمباز السمسم استخلصت باستخدام الطاقة الكهربائية وأخرى تعمل بالجمل.

تمت دراسة المصدرين من حيث قابلية تكسير المادة الجافة ومدى تأثيرها بالمعالجة الحرارية وذلك باستخدام تقنية أكياس النايلون. تمت معالجة كل عينة بدرجات حرارة مختلفة لكن الزمن ثابت لكل عينة ودرجات الحرارة هي 120، 140، 160 °م لساعتين من الزمن.

استخدم عجل طلوقة واحد ذو الناسور الكرشى لتحضين النوعين في الكرش في فترات تحضين مختلفة 0 ، 6 ، 12 ، 24 ، 36 ، 48 ، 72 ساعة.

أظهرت نتائج التحليل التقريبي أن مصدر أمباز السمسم لا يوجد بينهما إختلاف معنوي ($P < 0.01$) وذلك في التركيب الكيميائي للنوعين.

وأوضحت النتائج أن مصدر أمباز السمسم الذي تم الحصول عليه من معصرة زيت تعمل بواسطة الجمل له درجة قابلية تكسير عالية خلال كل فترات التحضين من نوع أمباز السمسم المتحصل عليه من معصرة زيت تعمل ميكانيكيا بالطاقة الكهربائية بإختلاف معنوي ($P < 0.01$).

إضافة إلى ذلك وجد أن قابلية تكسير المادة الجافة يقل بزيادة درجة الحرارة المعالجة لكلا المصدرين من أمباز السمسم.