

تأثير التجميد وفترة التخزين على جودة لحوم حواشي الإبل

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ص.ب. ٢٤٦٠ الرياض ١١٤٥١، المملكة العربية السعودية

ملخص :

أجريت هذه الدراسة لمعرفة تأثير التجميد وفترة التخزين على خواص وجودة لحوم الإبل الصغيرة . تم الحصول على العضلة العينة لثمانية ذكور من الإبل النجدية (١٢ شهر) بعد ٢٤ ساعة من الذبح، تم تقطيع العضلة إلى شرائح بسمك ٢,٥ سم و عبئت بأكياس بلاستيكية تحت التفريغ و تم تجميدها على درجة - ١٠ م° لمدة ١٤، ٣٠، ٦٠، ٩٠، ١٢٠ يوم . تم تقدير كلاً من قوة القطع، التدوق الحسي، فقد الرطوبة بعد التخزين والطبخ، اللون، TBA ، PH و طول الليفة للعينات الطازجة قبل التجميد وللعينات المجمدة للفترات ١٤، ٣٠، ٦٠، ٩٠، ١٢٠ يوم من التخزين.

أوضحت نتائج الدراسة أن قوة القطع زادت ($P < 0,05$) في معظم فترات التخزين مقارنة باليوم الأول. التدوق الحسي لم يكن هناك تغيير معنوي للعصيرية والطراوة اما النكهة كان هناك زيادة للأفضل . كان هناك زيادة معنوية ($P < 0,05$) في فقد الطبخ للمحتوى الرطوبي للعينات المجمدة مقارنة باليوم الأول (غير المجمدة)، وكان هناك زيادة معنوية ($P < 0,05$) في قيمة TBA خلال الفترات ٩٠ و ١٢٠ يوم عن اليوم الأول. لم يكن للتجميد تأثير معنوية على مقاييس اللون ($L^* a^* b^*$) مقارنة باليوم الاول. طول الليفة العضلية زادت بشكل معنوي لبعض فترات التخزين .

من هذه الدراسة يستنتج أن التجميد بعد ٢٤ ساعة من الذبح لم يكن له تأثير على جودة لحوم الإبل الصغيرة المعبئة تحت التفريغ خلال ١٤، ٣٠، و ٦٠ يوم من التخزين على - ١٠ م°.

استخدام الحقن بكلوريد الكالسيوم والتعتيق لتحسين طراوة لحوم الإبل المسنة

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ملخص البحث. أجريت هذه التجربة لدراسة تأثير الحقن بكلوريد الكالسيوم والتعتيق على فترات زمنية مختلفة (ما بين الضلع ٧-١١ Longissimus Muscle على طراوة لحوم إناث الإبل المسنة . تم اخذ العضلة العينية (من ١٠ ذبائح من الإبل المسنة (عمر ما فوق ٦ سنوات). تم حقنها بعد الذبح ب ٢٤ ساعة بمحلول كلوريد الكالسيوم (درجة غذائية) بتركيز ٣٠٠ ملي مول و بنسبة ١٠ % (وزن/وزن) و من ثم تعبئتها في أغلفة م لمدة ٣، ٧، و ١٠ أيام، عند اليوم الأول و نهاية كل فترة تخزين قدر ٥ بلاستيكية تحت تفريغ و التخزين على ٢ كل من : قوة قطع العضلة المطبوخة، درجة تكسير الليفة، طول الليفة (الساركومير) فقد الرطوبة أثناء الطبخ والتعتيق. أوضحت النتائج أن قوة القطع انخفضت في العينات المحقونة بكلوريد الكالسيوم عن غير المحقونة في كل فترات التعتيق وكان الانخفاض معنوياً في اليوم الثالث. كما أوضحت النتائج أن قوة القطع انخفضت تدريجياً كلما زادت مدة التعتيق في جميع الفترات. لم يكن للتعتيق في العينات غير المحقونة تأثير على طول الليفة العضلية. درجة تكسير الليفة لم تتأثر معنوياً بالحقن بكلوريد الكالسيوم بينما كان التأثير لعامل التعتيق خاصة في (للعينات المحقونة مقارنة $p < 0.05$ اليوم السابع والعاشر. كان هناك زيادة معنوية في قيم فقد التخزين) (في فقد الرطوبة أثناء الطبخ خلال اليوم الثالث $p < 0.05$ بالعينات التي لم تحقن. أدى الحقن إلى زيادة معنوية (والسابع وأيضاً كان للتعتيق في المعاملتين تأثير معنوي في زيادة السائل المفقود. نستنتج من هذه الدراسة أن حقن لحوم الإبل المسنة بمحلول كلوريد الكالسيوم بعد الذبح ب ٢٤ ساعة والتعتيق لمد ٣ أيام يعتبر طريقة فعالة لتحسين طراوتها.

Effect of feeding some types of Atriplex SPP. in complete diet on growth performance and digestibility of growing lambs.

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Abstract: Thirty six Najdi ram lambs were equally and randomly allotted to four dietary groups with three replicates per diet to evaluate the effect of feeding some types of Atriplex SPP. in complete diet on nutrient digestibility, nitrogen balance and growth performance. Animal fed for 70 days on four different diets as whole mixed diets (control diet containing hay (C), Atriplex halimus (H), Atriplex Lecucoclada (L) and Atriplex (H + L)) where types of Atriplex were incorporated to replace the hay of control diet. Digestibility trial was conducted at the end of the experiment. The results showed that the apparent digestibility of dry matter (DM), organic matter (OM), crude fiber (CF) and acid detergent fiber (ADF) were slightly decreased with no significant differences as a result of using Atriplex SPP. instead of hay while nitrogen free extract (NFE) and natural detergent fiber (NDF) digestibility were decreased significantly ($P < 0.05$). Significant difference on nutritive value ($P < 0.05$) were found on control diet for TDN values compare to other diets containing Atriplex SPP. while no significant difference was detected for the digestible crude protein (DCP) values. The ranges of nitrogen balance were 7.10 to 8.54 g /day for both types of Atriplex SPP and control diet respectively with no significant differences. Average daily dry matter intake were higher ($P < 0.1$) in lambs fed diets containing Atriplex SPP. than control. No significant differences were detected on average daily gain with higher in lamb fed control diet than other diets. In conclusion, these results indicated that Atriplex SPP. is a better substitute of alfalfa hay when fed to growing Lambs.

Evaluation of Physical Properties of Twelve Major Camel Muscles

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ABSTRACT: An experiment was conducted to assist the physical properties of twelve major camel muscles. Eight young Najdi camel of similar background were slaughtered, dressed and weighed (average carcass weight 120 kg). After 24 hrs post-mortem, 12 muscles [*Semitendinosus*, *triceps brachii LH*, *recuts femoris*, *biceps femoris*, *triceps brachii*, *infraspinatus*, *gluteus medius*, *semimembranosus*, *supraspinatus*, *psaos major*, *longissimus lumborum*, and *longissimus thoracis*] were removed from right side, cut into 2.5 cm steaks, vacuumed package and stored at -10 °C. Shear force, myofibril fragmentation index, sarcomere length, drip loss, cooking loss color and pH were determined. The obtained results revealed that *Psoas major* and *supraspinatus* had the lowest shear force values ($P < 0.05$) while *semitendinosus*, *triceps brachii LH* had the highest values. *Psoas major* and *semitendinosus* had relatively longer sarcomere lengths ($P < 0.05$) whereas *glutens medius* and *longissimus lumborum* had shorter sarcomere lengths. *Gluteus medius* and *longissimus thoracis* presented the highest myofibril fragmentation index values ($P < 0.05$), where *rectus femoris* and *triceps brachii* had the lowest values. Muscles from round had relatively the lowest drip loss value, while muscle from chuck and loin had the higher values. *Semitendinosus*, and *longissimus thoracis* had the highest (L^*) (lightness) value, whereas *infraspinatus*, *triceps brachii* had the lowest (L^*) (darkest) value. *Semitendinosus* and *supraspinatus* had the highest numerical redness (a^*) values whereas, *triceps brachii* and *recute fermoris* have lowest values.

These results increase our understanding about the variation in tenderness and characteristics of different camel muscles and provide a basis to improve muscle quality and muscles value.

**Changes in the preferences of Saudi citizens for different kinds of meat
and sheep breeds.**

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ABSTRACT: Questionnaires were conducted to investigate the changes in meat and mutton breeds preference in 1987 and 1997 among Saudi Arabian citizens in Riyadh Metropolitan area. The questionnaires were randomly distributed to 300 individuals, 197 qualified questionnaires were received. In the 1997, fifty one percent of the respondents preferred chicken, followed by 38% for mutton, were as in 1987 chicken was preferred by 42% and mutton 60%. The preference percentage of camel, beef and fish were 32% and 2.5%, 11% and 3.5%, and 15% and 8.5%, for 1987 and 1997, respectively. Mutton breed preferences were; Najdi 73% and 24%, whereas Naeimi 35% and 68% in 1987 and 1997, respectively. Mutton meat price was the main factor for changing the preference of Saudi citizens followed by the availability of other breeds in the market. Ninety nine percent of the respondents felt that there were differences between mutton breeds in meat quality and 80% of them purchase endogenous breeds because of there taste. The habits of buying mutton meat were; 72% and 84% prefer to buy alive sheep, 22% and 26% from butchers, 3.5% and 5% imported refrigerated and 1.5% and 2% imported frozen meat in 1987 and 1997, respectively. The result indicated that 42% of respondents purchase at least one sheep per month.

Effect of Graded Levels of Crude Protein in Diets on Camel Carcass Characteristics

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ABSTRACT

Eighteen Najdi male camels (204.5 kg) were divided equally into three groups and fed 12, 14.2 and 17% dietary CP for 150 days to evaluate the effect of dietary protein levels on carcass characteristics, fatty acids, and amino acids profile. Camel fed 14.2% CP diet had a higher ($P < .05$) final and carcass weights than those fed 12% CP diet. Fat values (kidney fat and ether extract percentages) were higher for camel fed 14.2% than 12 or 17% CP diets. Proximate chemical analysis of camel longissimus muscle were not affected ($P > .05$) by dietary CP diets. Amino acid alanin was higher ($P < .05$) for camel fed 12% than 14.2 and 17% CP diet. Myristic, palmitic and saturated fatty acids were ($P < .05$) higher for 14.2% than 12% CP diets. On the other hand, linoleic and unsaturated fatty acids were higher for animal fed 12 than 14.2 % CP diets. Generally, there were no major changes between 14.2 and 17% CP diets except for fatty acid composition. The data indicate that 14.2% dietary CP is an adequate for feeding male camel during the growing stage.

Effects of hot boning and postmortem aging time on camel meat tenderness

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Abstract. An experiment was conducted to determine the effects of hot boning and postmortem aging time on camel meat tenderness. Six male camels (average carcass weight 133 kg) were used, longissimus muscles were excised at 1 or 24 h postmortem and aged at 2 °C for 1, 3, 7, 10, 14 d postmortem. Shear force, myofibril fragmentation index (MFI), sarcomere length, drip and cooking losses were determined. Hot boning significantly ($p < 0.05$) increase shear force at day 3 and 7 compare to intact muscle. Postmortem aging has reduced shear force during the first 7 days of postmortem. Most of the increases in myofibril fragmentation index (MFI) happened within the first 7 days of postmortem and MFI reduced by hot boning compare to intact muscle. Sarcomer length decreased ($P < 0.5$) by hot boning on day 3 and 7 compare to intact muscle. The results of this investigation indicate that hot boning had no effect on camel meat tenderness within the first 24-h postmortem, and camel meat tenderness can improve by aging up to 7 days postmortem.

**Effect of Dietary Halophyte *Salicornia bigelovii* Torr on Carcass Characteristics,
Minerals, Fatty Acids and Amino Acids Profile of Camel Meat**

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Abstract

To evaluate the effect of feeding *Salicornia bigelovii*, a halophyte, eleven Najdi camels (202 kg) were divided into two groups and fed on diets containing either 25% Rhodes grass or Salicornia hay for 120 days. Carcass characteristics were generally not affected by Salicornia hay. Similarly proximate composition, minerals, essential amino acids and fatty acids of *M. longissimus* were generally not affected by dietary treatments. However, Na, linoleic acid, Polyunsaturated fatty acids and methionine were higher in Salicornia hay fed camels, whereas, essential amino acid valine, histidine and phenyl alanine were lower in these camels. It is concluded that Salicornia hay can be included at 25% level in the diet of adult Najdi camels.