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Abstracts

Effects of preparation methods and storage period on chemical composition, nutritive value and quality of dried beef meat were investigated. Three different methods were applied: Preparation by oven, air under shade and drying in the sun light. Samples from each preparation method were taken for analysis for three successive months.

The dry matter, crude protein, ether extract and ash content of the samples showed significant difference ($P<0.01$). Dry matter, crude protein and ash content were highest in samples dried by the sun (94. 61±0.06, 78.08±1.56 and 6.77±0.49% respectively), whereas ether extract percentage was highest in samples dried by oven (16.57±0.06%).

The results of nutritive value (energy, crude protein and ash) of the dried beef meat showed that, there was high significant differences ($P<0.01$) in all parameters measured. Samples prepared by oven had higher energy value (485.52 ±2.16), whereas samples prepared by air had lower value (393.38±2.43) compared to the other preparation methods.

Colour, texture, smell and overall acceptability of the samples showed significant difference ($P<0.01$). Samples prepared by air and drying under the sun recorded higher values in colour (6.1±1.10, 6.80±0.63%); texture (6.20±0.79, 6.22±1.01%); smell (6.10±1.10, 6.80±0.63%) and overall acceptability (6.50±0.97, 6.90±0.88%) respectively. Whereas, samples prepared by oven had lowest value in quality

attributes (4.60±1.26; 4.00±0.94; 3.00±1.04 and 4.00±1.25%) for colour; texture; smell and overall acceptability respectively.

Microbial assessment result showed the mean values of total bacterial count, coliform, *E.coli*, *Salmonella* and fungi of dried beef meat by different preparation methods and storage periods. Samples prepared by drying under the sun had higher total bacterial count ($7.00\pm0.17 CFU/g^{-1}$); samples prepared by air had positive results for *E.coli*, whereas all samples were free from *Salmonella* and fungi.

تمت دراسة تأثير طرق التجفيف وفترة التخزين على التركيب الكيميائي، القيمة الغذائية وجودة لحوم الأبقار المجففة. أستخدمت ثلاثة طرق مختلفة هى: التجفيف بالفرن، الهواء والتجفيف تحت أشعة الشمس. أخذت عينات معاملات التجفيف المختلفة للتحليل دورياً كل شهر لمدة ثلاثة شهور.

أظهر محتوى العينات من المادة جافة، البروتين خام، الدهن والرماد أن هنالك فرق معنوي ($P<0.01$). المادة الجافة، البروتين الخام والرماد أعلى في العينات المجففة تحت أشعة الشمس (94.57±0.07، 78.08±1.56 و 6.77±0.49% على التوالي)، كما أن نسبة الدهن أعلى في العينات المجففة بالفرن (16.57±0.06%).

أظهرت محتوى العينات أن هنالك فرق معنوي ($P<0.01$) في القيمة الغذائية. العينات التي تمّ تجفيفها بالفرن أظهرت نتائج أعلى في الطاقة (485.52±2.16). كما أظهرت العينات التي تمّ تجفيفها بالهواء قيمّ أقل في الطاقة مقارنةً مع معاملات التجفيف الأخرى.

أظهرت الخصائص الفيزيائية أن هنالك فرق معنوي ($P<0.01$) في اللون، القوام، الرائحة والقبول العام. العينات التي تمّ تجفيفها بالهواء وتحت أشعة الشمس

أظهرت نتائج أعلى في اللون (6.1±1.10، 6.8±0.63%)، القوام (6.20±0.79، 6.22± 1.01%)، الرائحة (6.10±1.10، 6.8±0.63) والقبول العام (6.50±0.97، 6.90±0.88% (على التوالى. كما أظهرت العينات التي تمّ تجفيفها بالفرن أن لديها أقل قيمّ في خواص الجودة (4.60±1.26 ،4.00±0.94 ،3.00±1.04 و 4.00±1.25%) للون، القوام، الرائحة والقبول العام على التوالي.

نتائج التحليل الميكروبي (العد البكتيري، الإشكريشية القولونية، السالمونيلا والفطريات والخمائر) أظهرت أن العينات التي تمّ تجفيفها تحت أشعة الشمس تحتوي على أعلى عدد بكتيري ($0.17CFU/g^{-1}$±7.00)، والعينات التي تمّ تجفيفها بالهواء إحتوت على الإشكريشية القولونية وجميع عينات طرق التجفيف المختلفة خالية من السالمونيلا والفطريات والخمائر خلال مدة التخزين.