Dedication

To my dear mother who granted me all the beautiful things in life.

To my dear father.

To my dear husband who support me and encourage all the time

To my loved daughter.

To my sisters, brothers and all relatives.

To my friends and colleagues

With love and respect

Maimona

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ABSTRACT

The study was conducted to compare between two Suptypes Baggara Cattle (Messari and Nyalawi) .Twenty-four Sudanese Baggara subtypes bulls (Nyalawi and Massari) were chosen and are divided into two groups, according to subtypes, (Twelve animals for each subtype group).

Each animals group was subdivided into Four groups three animals each. The age ranging between 1.5-3years and the initial weight was 200±5 kg . During the experimental period the animal were fed adlibitum molasses feed and 2Kg／ head/ day sorgum straw and 2Kg Medicago Sativa weekly.

At the end of fattening period which extended (70 days) random selected six animals of each group were slaughtered serially containing .Four animal per day were slaughtered two of each subgroup.

All the body measurement were not significantly different ,but the Messari bull showed longer body length, height at rump and face length While Nyalawi subtype showed wider .heart girth around the hump, height at weither and chest depth.. All reported data for non-carcass showed no significant difference ($p>0.05$) between the two subtypes, but the Messari subtype showed higher omental and Messentric fats while the Nyalawi subtype revealed heavier gastro intestinal tract and hence gut fill. Messari Cattle subtype revealed higher percentage of Genitalia, tail, lung & trachea and blood. Carcass data. Showed no significant difference ($p>0.05$) between the two subtypes in slaughter and Empty body weight and Carcass weight. The dressing percentage was higher in Messari than Nyalawi for Hot and chilled carcass weight on. Chiller Shrinkage was higher in Messari Cattle Subtype. Nyalawi Showed higher eye muscle area where kednies fats were heavier in the Messari subtype.

Carcass yield of Whole sale cut represented as percentage Of carcass weight .All whole sale cuts recorded showed no significant difference ($p>0.05$) between Messari and Nyalawi Cattle Subtypes ,but Messari Cattle showed higher percentage for Neck, Shin, thick ribs, thin ribs, brisket, leg, hind quarter flank, top side &silver side, rump and sirloin. While Nyalawi bulls showed higher percentage of Clod, chuck & blade, extended roasted ribs and thick flank.

Meat chemical composition of two Baggara Cattle Subtypes Moisture content showed no significant difference ($p>0.05$) between the two Baggara Cattle Subtypes, but the Nyalawi showed higher moisture content. Protein percentage was not significantly different. There were highly significant difference ($p<0.01$) for muscle fat content Where Messari bulls showed higher fat content of meat . While Ash content revealed no significant difference ($p>0.05$) .

Meat Color, Water holding capacity ,ph and cooking loss showed no significant difference in color ($p>0.05$) but the Messari Subtypes showed slightly higher yellowness colour intensity than the Nyalawi. Messari showed improved cooking loss than the Nyalawi bull. Carcass measurements all parameters measured showed non-significant difference between the two Baggara Cattle Subtype studied.

الخلاصة

للمقارنة بين نوعين من أبقار البقارة السودانية تم اختيار أربعة وعشرون عجل من أبقار البقارة (المسيري والنيالاوي). وقسمت الي مجموعتين .كل مجموعة تحتوي علي ١٢عجل مقسمة الي أربعه مكررات تحوي بداخلها ثلاثة حيوانات.

ألاوزان الابتدائية للحيوانات الحية كانت ٢٠٠±٥كجم وأعمارها تتراوح مابين ١.٥-٣سنوات.تمت تغذيتها علي عليقة المولاس والرده وهي العليقه المستخدمه في مركز ابحاث كوكو بالاضافه للقصب الجاف بمعدل ٢كجم /للراس لمدة ٧٠يوم وهي فترة التسمين لهذه العجول .

تم ذبح العجول باختيار ١٢عجل من المجموعتين عشوائيا(٦مسيري+٦ نيالاوي).قياسات الذبيحة للحيوانات الحية للمجموعتين (المسيري والنيالاوى) لم تظهر أي فروقات معنوية بينهما.ولكن المسيرى كان أطول في الجسم ،الارتفاع في السنام ،طول الوجه. كما أظهر زيادة ذات فرق معنوى ملحوظ في نسبة الدهون (الكرش والمساريقا).بينما النيالاوي كان أفضل من ناحية محيط الصدر حول السنام ،الارتفاع عند الغارب وعمق الصدر.

بالنسبة لبيانات الذبيحة داخل المسلخ لم تكن هنالك فروقات معنوية بين النوعين (المسيري والنيالاوي) في وزن الجسم الفارغ ووزن الذبيحة .ولكن نسبة التصافي البارد والحار كانت اعلي في المسيري مقارنة مع النيالاوي.بالنسبة للقطعيات التجارية وأوزانها لم تكن هنالك فروقات معنوية.

التحليل الكميائي لعينات الذبيحة من النوعين لم يظهلر اي فروقات معنوية في محتوي العينة من الرطوبة ونسبة البروتين .الا ان هنالك فرق معنوي واضح في محتوي العضلات من الدهون في المسيري.وكذلك التحليل الفيزيائي لم يظهر أي فروقات معنوية تذكر بين النوعين .وكذلك قياسات الذبيحه لم تكن فيها أي فروقات معنوية.

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