

DEDICATION

To my husband, sons for their patience and sacrifices,

brothers and friends

ACKNOWLEDGEMENT

Firstly I thank Allah for giving me strength and aptitude and patience to conduct this study .

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Abstract

The study was conducted to investigate the productive traits of Nubian goats by crossing with Saanen

Sixteen mature female goat and two buck purchased from El karaba area northern part of River Nile State and two Saanen buck reared by Animal Resource Directorate in River Nile state. Nannies were divided into four groups, based on live body weight, under same management. Two groups were mated with Nubian buck and other two groups mated with Saanen buck (100%). The dams age range from 1 – 2 years old the average body weight 21 ± 2 kg. The numbers of borne kids were sixteen (nine males and seven female). The productive performance in Nubian breed, birth weight was 2.87 ± 0.15 and 3.02 ± 0.12 kg for female and male respectively. And their Saanen cross bred 50% (Nubian X Saanen) were

3.34 ± 0.27 , 3.63 ± 0.21 for corresponding sex. The study reported that males were heavier than female. The weaning weight (12 weeks) 10.56 ± 0.35 , 10.23 ± 0.71 kg in male and female for Nubian goat respectively. And for their Saanen crossbred (50%) was 11.70 ± 0.76 kg, 10.82 ± 0.65 kg for male and female respectively. The Post - weaning body weight at 24 weeks of age in Nubian breed were 14.92 ± 0.67 , 14.77 ± 0.42 kg, for male and female respectively. And the weight of Saanen crossbred were 16.27 ± 0.67 , 15.12 ± 0.44 kg for male and female respectively at the same age. The live body weight at (34) weeks age (mature age), 16.60 ± 0.40 , 16.4 ± 0.63 kg for male and female Nubian goats respective. And that of

their Saanen crossbred were 18.30 ± 0.50 , 17.04 ± 0.38 kg. The growth rate in pre and post- weaning, were 7.453 ± 0.180 , 7.773 ± 0.180 kg

and the 6.088 ± 0.720 , 6.362 ± 0.283 kg , in Nubian goats and their Saanen crossbred 50% respectively . The overall live body gain was 13.563 ± 0.463 , 14.063 ± 0.593 for corresponding breed .It was highly significant($p < 0.01$). Also, the mean square indicates that male kids performed in all cases considerably, better than female kids.

The linear body measurements heart girth ranged between 31.3 ± 2.3 and 62.4 ± 2.5 cm at birth (female Nubian) and at 34th week of age (male crossbred) respectively. With the exception of the effect of breed at 12th and 24th week of age, all other measures of the heart girth are significantly. Height at wither of Saanen crossbred(50%) was higher than Nubian kids at all ages but was significantly at birth 36.4 ± 2.2 , 33.5 ± 2.8 ($p < 0.05$). Males of two breeds had higher height at wither at 24th and 34th week of age than females . Nubian goats had significantly lesser body length than their Saanen crossbred at all ages. ($p < 0.01$, $p < 0.05$). On the other hand the body length was not affected by the sex of the animal at all ages. The height at wither growth rate the same trend of that body weight. The regression of body weight on height at wither had highest coefficient of determination. From the result it was concluded that Nubian X Saanen crossbred (50%) perform better than pure Nubian. So crossbreeding of Nubian is recommended .Moreover has good adaptation to River Nile State environment.

ملخص الدراسة

أجريت التجربة لإستقصاء التحسين الوراثي فى الماعز النوبي بتناسلية مع سلالة

السعانيين ومقارنة مع سلالة الماعز النوبي .

أجريت التجربة فى عدد (١٦) أنثى ماعز نوبي تم شراءها من منطقة الكرية فى شمال ولاية نهر

النيل وكان متوسط أوزانها بين (٢١ ± ٢) وأعمارها مابين سنة الى سنة ونصف قسمت الى

أربعة مجموعات على حسب متوسط الوزن مجموعتين لقحت من نفس السلالة ومجموعتين

لحقت من سلالة السعانيين ١٠٠% واستجلبت من وحدة تحسين النسل لإدارة العامة للثروة

الحيوانية ولاية نهر النيل عدد المواليد ستة عشر (٩ ذكور و ٧ إناث) تم وزنها من يوم الميلاد

وكان متوسط وزن الإناث (١٥٧ ± ٢,٨٧) والذكور (٣,٠٢ ± ٠,١٢) كجم للماعز النوبي

متوسط أوزانه للسعانيين ٥٠%

(٣,٦٣ ± ٠,٢١) ، (٣,٠٢ ± ٠,٢٧) على التوالي عند الفطام (٣) شهر وكان متوسط

الأوزان (١٠,٥٦ ± ٠,٣٥) ، (١٠,٢٣ ± ٠,٧١) للذكور والإناث على التوالي للماعز النوبية

وللسعانيين ٥٠% (١١,٧٠ ± ٠,٧٦) ، (١٠,٨٢ ± ٠,٦٥) للذكور والإناث على التوالي

متوسط الأوزان بعد الفطام عند الأسبوع (٢٤) للماعز النوبي (١٤,٩٢ ± ٠,٢٦) ، (١٥,٤٢ ± ٠,٤٢)

(١٤,٧٧) أما بالنسبة للسعانيين ٥٠% فى نفس العمر (١٦,٢٧ ± ٠,٦٧) ، (١٥,١٢ ± ٠,٤٤)

كجم للذكور والإناث على التوالي وأما متوسط الأوزان عند

النضج فى الأسبوع (٣٤) فكان كمايلى :-

الماعر النوبي (١٦,٦٠ ± ٠,٤٠) ، (١٦,٤٠ ± ٠,٦٣) كجم وللماعز السعانيين ٥٠%)
الماعر النوبي (١٨,٣٠ ± ٠,٥٠) ، (٧,٤ ± ٠,٣٨) كجم للذكور والإناث على التوالي .معدل النمو قبل وبعد

القطام

(٧,٤٥٣ ± ٠,١٨٠) ، (٧,٧٧ ± ٠,١٨٠)

(٦,٠٨٨ ± ٠,٧٢٠) ، (٦,٣٦٢ ± ٠,٢٨٣) كجم على التوالي للماعز النوبي والسعانيين ٥٠%

معدل النمو الكلى

(١٣,٥٦٣ ± ٠,٤٦٣) ، (١٤,٠٦٣ ± ٠,٥٩٣) للماعز النوبي والسعانيين ٥٠% على التوالي

وكان له تأثير معنوي اثبت الدراسة إن أوزان الذكور اثقل من أوزان الإناث فى كل الأعمار .

كانت قياسات الجسم فى محيط الصدر يتراوح بين

(٣١,٣ ± ٢,٥ . ٦٢,٤ ± ٢,٥) سم عند الولادة للماعز النوبي الى النضج فى السعانيين

٥٠% وان له تأثير معنوياً عن النوع فى كل الأعمار ماعدا القطام والأسبوع (٢٤) .

ارتفاع الغارب كان أعلى بالنسبة للسعانيين ٥٠% وله تأثير معنوي عند الميلاد كذلك يمكن

استنتاج إن التحسين الوراثي عن طريق الهجين أعطى نتائج أفضل مع ملائمة الهجين لمناخ

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