RESEARCH REGARDING MILK PRODUCTION IMPROVEMENT TO THE NORD-EAST OF ROMANIA LOCAL SHEEP BY CROSSING WITH AWASSI RACE

E.C. Popescu[1*], Diana Popescu Cernei[1]

[1]Research and Development Station for Sheep and Goat Farming Secuieni-Bacău, Holt Bacău, Romania

Abstract

In many farms from Romania the sheep are raising without a breeding program, for that reason sheep performances are low. The aim of this study was to see if we can improve milk production of local sheep from the Nord-East of country by crossing with Awassi rams. For this we cross local sheep with Awassi rams. First generation lambs have a good body development with an average body weight of 5.5 kg at birth and 17.5 kg at age of 60 days. First generation ewes have a bigger milk production than his mothers with a better udder development. The lactation length of first generation ewe was bigger with 15% than local sheep. Average milk production in the first lactation was 79kg with 29 kg bigger than local sheep.

Key words: Awassi, local sheep, milk production

INTRODUCTION

In Nord-East of Romania are many breeders who raise sheep without having a breeding program and without a mating plan. They don't have training in sheep farming and breeding. Their interests for milk production improvement and for a better productivity in their farms make us to test the combinative capacity of local sheep with a milk sheep race named Awassi. Awassi is a milk sheep race introduce in Romania in the eighties, with a good adaptability in Nord East of Romania in extensive raising system.

It is known that first generation (F_1)crossing are practice to obtain a rapid result for production improvement based on heterosis effect [1], [2], [3].

MATERIAL AND METHOD

This study was made on 90 heads of yearling ewe obtained after crossing of local sheep with Awassi rams in a farm from North-East of Romania. For the F_1female offspring was evaluated corporal development by weighing at birth, at the age of 30 and 60 days old, at 6 months old and previous of mating. After lambing and lamb weaning was made milk quantitative control to estimate milk production for F1 female and local sheep.

Data collected was proceeding after classical methodology and related in systematic tables.

RESULTS AND DISCUSIONS

Phenotypically most of F_1 lambs have a fat tail and their colours varies from black to brown with white spotted at more than 70% from offspring, to white with brown head and/or legs and sometimes clear white.

Corporal body weight of lambs was taken at two hours after lambing and his average value was 4.7kg with limits between 2.8 and 6.6 with mention that smallest value was registered for twins. At 30 days old average body weight was 10.7kg and at 60 days old average body weight was 17.5kg with limits between 13 and 25 kg. The corporal body weight at 6 months old F1 females was in average of 33 kg. Previous to mating at the age of one year and six mounts old the average body weight ofF_1 females was 50.21 kg.

[*]Corresponding author:
cristi_popescu_2007@yahoo.com
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Table 1 Average values and variability estimates for corporal development on F_1 yearlings take in study

Features		n	$\bar{X}$	$\pm s_{\bar{x}}$	s	V%	Min	Max
kg at	lambing	111	4.7	0.10	0.70	14.75	2.8	6.6
	30 days old	107	10.7	0.26	1.73	16.39	9.0	11.0
	60 days old	105	17.5	0.40	2.61	14.69	13	25.0
	6 mounths old	98	33	0.91	6.14	18.44	24.0	48.0
	1year and 6 months old	90	50.21	0.74	4.53	9.03	41.5	59.0

The F_1 yearlings used on mating has a body condition score between 2.5 and 3.5.

Form table 2 we can observe that F_1 ewe have a longer lactation with more 30 days than local sheep. Average milk production for F_1 is 79.5 kg with limits between 79 si 130 kg in an average milking period of 129 days.

Table 2 Average values and variability estimates for milk production

Features		n	$\bar{X}$	$\pm s_{\bar{x}}$	s	V%	Min	Max
F_1	Milk (kg)	90	79.5	1.20	11.40	14.33	71	130
	Milking period	90	129.5	0.71	6.73	5.19	120	144
Local sheep	Milk (kg)	127	50.7	0.44	4.26	8.41	43	59
	Milking period	127	112	0.96	9.13	8.16	92	121

Local sheep has an average milk production of 50kg with limits between 43 and 59 kg in an average milking period of 112 days raised in the same condition in the same year in the same farm.

CONCLUSION

The lack of knowledge of the farmers in direction of sheep breeding and the importance of its application for the quantitative increase of productions has made in Romania sheep farming sector to stagnate, evolving only numerically.

From study results is obvious that Awassi race has a good effect on improvement of local sheep in dairy direction.

The F_1offspring have a good corporal development but that can be improved using an intensive system for raising them.

It is obvious that milk production is improved after this crossbreeding and the farmer can easy have a better production in his farm.

In generally this new kind of sheep have udder traits that are characteristic for dairy production but that can be improved by selection.

This kind of study on this local sheep will be continuing with another specialized race and different crossing for productions increasing.

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