

THE INFLUENCE OF THE CARABAȘĂ BREED UPON THE MILK AND MEAT PRODUCTIONS OF THE MERINOS SHEEP FROM DOBROGEA

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Abstract

Taking into account the concerns of the sheep breeders from Dobrogea and the trends of promoting the breeding and exploiting the Carabașă sheep for the milk and meat production, the work aimed, through these researches developed at ICDCOC Palas-Constanța and private breeders to establish the influence of Carabașă breed upon Merinos sheep. The working methods had as main activities, the following:

- monthly control of the milk production and establishing the total production by summing the milk production during milking period at the production of milked milk;
- determining the potential for meat production proportionally to the body development and capacity of fattening.

Achieving at Carabașă sheep a total milk production of 169.0 l/head, out of which 86.7 l/head were merchandise milk justify the presence and spreading of Carabașă breed in Dobrogea. Also, the made appreciations concerning the capacity of fattening at Carabașă breed and at the half-breeds of Carabașă x Merinos, recommend their efficient exploitation for the meat production. As a general conclusion, the capacity of milking, the results regarding the breeding of young sheep and the obtained milk production recommend the keeping of the effective of Carabașă sheep in Dobrogea area and their use at the improvement of the Merinos local sheep effectives by crossbreeding.

Key words: Carabașă, half-breeds

INTRODUCTION

The social-economic changes in the last years and the influence of many limitative economic factors have changed the form of property, the size, the breed structure of the sheep effectives in the way of exploitation.

In the context of these changes regarding the breeding of sheep in Dobrogea, the Carabașă sheep breed and using it for crossbreeding with Merinos local sheep in the last years managed to draw the attention of the sheep breeders, aiming the increase, the improvement of the quality of milk and meat productions and finally making this sector more efficient.

To fulfil the general aim of the researches, the approached research thematic had as purpose:

- To create the technical background of breeding and exploitation for the milk and meat productions of the Carabașă sheep in Dobrogea;
- To establish the influence of Carabașă breed upon the milk and meat productions of the sheep of Merinos type from Dobrogea.

MATERIAL AND METHODS

The researches were made on a source effective of 140 Merinos sheep from ICDCOC Palas-Constanța and on an effective of 250 Carabașă sheep and rams, in two private farms constituted as partners, in breeding and exploiting conditions that are specific to Dobrogea region.

The made researches were developed in two reproduction cycles and consisted in crossbreeding the sheep of Merinos type with rams of Carabașă breed taken from Mavrodin-Teleorman area, having as result

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the constitution of 3 experimental lots of 40 sheep/lot each (Carabașă breed, Carabașă x Merinos half-breeds and Merinos-witness lot) in each location.

The working methods had the following activities:

- Obtaining F₁ Carabașă x Merinos half-breeds which were tested on the productive performances of the milk and meat production;
- Evaluating the total milk production by determining the production of merchandise milk, established following the monthly controls made and the milk quantity achieved in the milking period (60 days) taking into account an average consumption of 5 litres of milk for a

kilogram of weight increasing rate at lambs;

- Appreciating the meat production at the male youth subject to fattening was made considering the body development and capacity of fattening.

RESULTS AND DISCUSSIONS

Production of milk – priority in Carabașă sheep breeding in Dobrogea is the production of milk. The general productive genetic material for the milk production was established determining the total quantity of suckled milk in the milking period (60 days) and the quantity of milked milk.

Table 1 The quantity of milk during milking

Variant	Period birth-28 days		Period 28 days-weaning		Total suckled milk (l)	Quantity of daily suckled milk (l/lamb)
	Growth in weight (kg)	Milk yield (l)	Growth in weight (kg)	Total milk yield (l)		
Carabașă	8.50	42.50	10.20	40.80	83.30	1.388
Carabașă half-breed	6.25	31.25	9.90	39.60	70.85	1.180
Merinos	5.35	26.75	8.85	35.40	62.15	1.035

The quantity of milk daily suckled Carabașă sheep is bigger with 34.1 % on the whole milking period besides Merinos sheep.

These differences are being materialized in the development of the lambs and justify

the interest of the sheep breeders from Dobrogea.

During the milking period the milk production varies depending on the month of lactation, as follows:

Table 2 Quantity of milked milk (the results of the production control)

Sheep Breed	Control	Effective of sheep	Duration (days)	Quantity of milk (l)		
				Daily average	Limits	Total period
Carabașă	I	87	50	0.72	0.50-0.87	35.0
	II	85	41	0.61	0.40-0.82	25.0
	III	81	30	0.53	0.35-0.78	15.9
	TOTAL	x	152	x	x	86.7
Carabașă Half-breed	I	37	50	0.65	0.45-0.80	32.5
	II	35	41	0.50	0.35-0.72	20.5
	III	31	30	0.44	0.29-0.61	13.2
	IV	25	35	0.25	0.18-0.35	7.7
	TOTAL	x	152	x	x	73.0
Merinos	I	32	50	0.53	0.43-0.65	25.5
	II	28	41	0.42	0.31-0.51	17.2
	III	25	30	0.35	0.27-0.41	10.5
	IV	10	31	0.18	0.10-0.25	5.6
	TOTAL	x	152	x	x	58.8

During the whole milking period of 152 days, the total and daily average quantity was:

Table 3 Average quantity of milked milk

Sheep Breed	Quantity (l)		Differences to Merinos (%)
	Total period	Daily	
Carabașă	86.7	0.578	47.45
Carabașă Half-breed	73.9	0.486	23.98
Merinos	58.8	0.392	100.00

Table 4 The total quantity of milk

Sheep Breed	Total quantity (l)	Out of which:		Differences to Merinos (%)
		Suckled Milk (l)	Milked Milk (l)	
Carabașă	169.0	83.3	86.70	39.7
Carabașă Half-Breeds	144.75	70.85	73.90	19.7
Merinos	129.95	62.15	58.80	100.0

The total milk production of 169 l/head at Carabașă sheep proves the fact that the performances of the studied sheep effective is in the productive parameters of the breed [5].

Production of meat – is appreciated considering the body development, the

fattening capacity, weight and quality of carcasses. The body weight and its evolution in certain periods of growing are important indicators regarding the productive potential of sheep for the meat production.

Table 5 Body weight on age categories

Breed	Category of sheep	Average body weight (kg)	Limits of variability (kg)
Carabașă sheep	Rams	89.5	85-105
	Mother Sheep	63.3	55-70
	Young males	65.5	63-77
	Young females	54.8	50-62
Carabașă half-breed sheep	Mother Sheep	56.5	48-60
	Young males	60.3	55-64
	Young females	49.8	46-59
Merinos sheep	Rams	62.8	60-75
	Mother Sheep	48.5	43-57
	Young males	56.3	50-59
	Young females	48.56	43-55

The comparison of results emphasized big differences between breeds at all categories especially at adults, the Carabașă x Merinos half-breeds having intermediary values.

By the control fattening of the young male Carabașă sheep, of the half-breeds and of the Merinos breed on a period of 100 days the following results were obtained:

Table 6 The results of testing the fattening capacity

Breed	Phase of fattening	Duration (days)	Body weight (kg)		Capacity of fattening	
			Initial	Final	Total weight increase (kg)	Daily increasing rate (g)
Carabașă	Accommodation	15	20.5	23.2	2.7	180
	Fattening	70	23.2	36.6	13.4	191
	Finishing	15	36.6	39.5	19.0	190
	TOTAL	100	20.5	39.5	19.0	190
Carabașă half-breeds	Accommodation	15	19.8	23.3	2.5	167
	Fattening	70	22.3	34.5	12.2	174
	Finishing	15	34.5	37.2	2.7	180
	TOTAL	100	19.8	37.2	27.4	174
Merinos	Accommodation	15	18.3	19.9	1.6	107
	Fattening	70	19.9	31.0	11.1	158
	Finishing	15	31.0	33.5	167	-
	TOTAL	100	18.3	33.5	15.2	152

The capacity of fattening on the total period at the male lambs of Carabașă and the half-breeds of Carabașă x Merinos appreciated by the average daily increasing rate at 190 g/day and 174 g/day is superior to the Merinos lambs which achieved an average daily increasing rate of only 152 g/day.

CONCLUSIONS

- The capacity of milking, the results regarding the breeding of the young sheep and the total production of milk recommend to maintain the effective of Carabașă sheep in Dobrogea and using them at improvement through crossbreeding of the local effectives of Merinos sheep.
- The determinations made regarding the capacity of fattening at the Carabașă x Merinos half-breeds, confirm the possibility of their efficient exploitation for the production of meat.

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