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Original article

Researches regarding reproductive parameters in teleorman's blackhead sheep

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ABSTRACT

This study is an important part of an ample research regarding the opportunity for establishment of regional centers for artificial insemination, in order to improve milk production. Is very important to know the current level of reproductive performance of population, in order to find the best ways and means for improving reproductive activity. In this case, we analyzed fertility, natality, prolificity, survival, and the percentage of abortions and embryonic mortality. Results obtained reveals a rate of fertility at 99.20% in adult sheeps and at 86.89% for young females (born in January, mated in August - October). Natality, in analyzed flock was at 98.59% for adult sheeps, 98.11% for young females. Prolificity was 130.14% for adults and 121.15% for young females. Survival was better for lambs foaled from adults (94.52%), in comparation with young females (92.06%). Abortions and emrionary mortality was at 1.41% for adults and 1.89% for young ewes. Analyzing obtained datas it is obvious that using of young females for reproduction at 8 - 10 months old involve obtaining of a smaller reproductive indexes. We recommend, in case of use of females for reproduction at 8 - 10 months old, an adequate feeding technique, in order to obtain, in young ewes, a body weight of at least 50% from adult ewes body weight. Through importance of intensification of reproductive activity, it's obvious that use of young females from young ages it is a good choice only when body weight is at least at 50 kg (about 70% from adult body weight).

1. Introduction

Study of reproductive indexes have a huge importance especially in ewes, because only starting from here it can become possible to increase economically efficiency by reducing birth - mate interval, increasing the number of descendants/ewe and also the number of lambs delivered for meat production. But if we want to act more quickly, with more efficiency, we must use artificial insemination indifferent of our breeding objective: milk or meat. Teleorman's Black Head Sheep, it's a relative new breed but with a great potential for milk production (average milk production 0.791 g/day, with limits between 2800 g/day and 130 g/day, differences who suggest lack of selection; milking period - 218 days) and also for meat production, with an average body weight of lambs at birth at 5.3 kg, with limits between 9.14 kg and 2.8 kg and an average of daily gain at over 0.280 g/day (Fita A, Calin I., 2013). In the same time is the most performant Romanian sheep breed, being known for it's quality in all Balkan's area (Ghita E. et al., 2000).

2. Materials and methods

The biologic material was represented by 585 sheeps from Teleorman's Blackhead sheep. The flock structure is presented in table 1 and figure 1. For analyzing reproductive activity, we calculate fertility (diagnosed pregnant x 100/mated), natality (foaled x 100/pregnant), prolificacy (foaled lambs/ewes x 100), mortality (dead lambs/foaled lambs x 100), and rate of abortion and embryonic mortality.

Table 1
Analyzed sample.

No.	Specification	Rams		Females		Total
		Adults	Youth	Adults	Youth	
1	Mated	12	10	502	61	585
2	Pregnant	-	-	498	53	551
3	Foaled	-	-	491	52	543
4	Lambs	-	-	639	63	702
5	Survivals	-	-	604	58	662

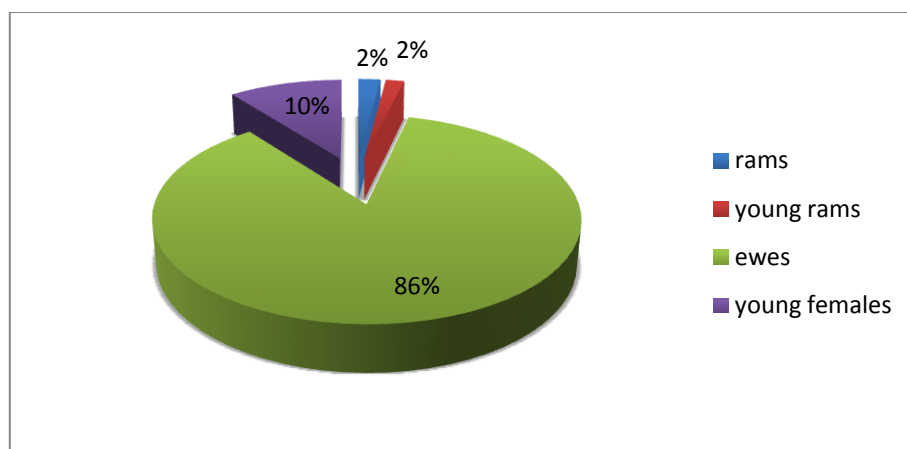


Fig. 1. Flock's structure.

3. Results and discussion

Analyzing the data, we can observe some differences between adult and young ewes regarding reproductive parameters (table 2). Fertility rate was lower in young ewes than in adult, but between technical parameters. Natality had the same trend, for adult ewes, and 98.11% for young ewes. For this parameter we record the smallest differences, between ewes and nouns. Situation remain in the same stage for prolificacy, survival, mortality (5.48% vs. 7.94%), abortion and embryonic mortality. All this differences are highlighted in figure 2. With the exception of survival and mortality, all others indexes are between characteristic technical parameters of the breed.

Table 2
Reproductive parameters in analyzed sample.

No.	Index (%)	Adults	Youths	Total
1	Fertility	99.20	86.89	94.19
2	Natality	98.59	98.11	98.55
3	Prolificacy	130.14	121.15	129.28
4	Survival	94.52	92.06	94.30
5	Mortality	5.48	7.94	5.70
6	Abortion & Embryonic mortality	1.41	1.89	1.45

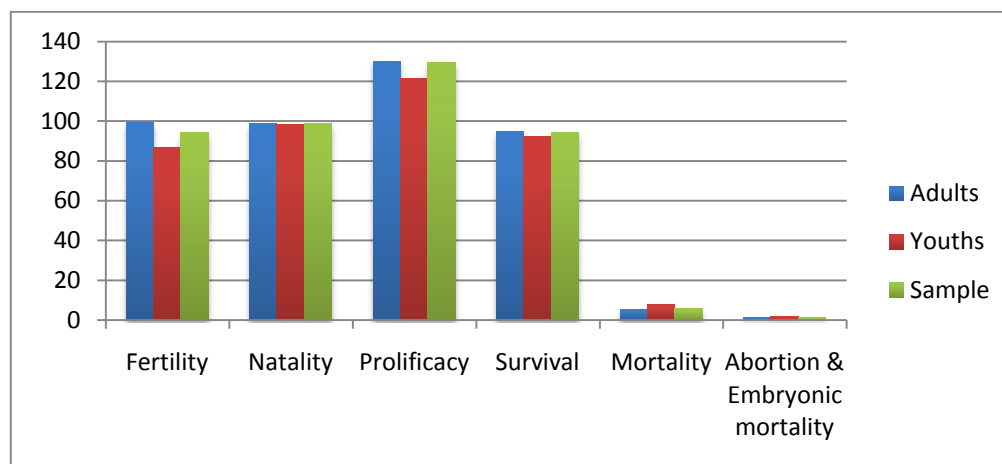


Fig. 2. Graphic representation of reproductive parameters in analyzed sample.

4. Conclusion

In conclusion, Teleorman's Blackhead sheep have good reproductive indexes, superior for other native breeds but more lower than other improved breeds. In other researches, who analyzed smaller farms, authors find better values for reproductive indexes (Ghita E. et al., 2002). We mention here prolificacy between 140% and 160% and mortality under 5%. All this differences can be attributed to special conditions provided by farmers with small flocks. In a farm with over 500 ewes it will be impossible to put all the lambs in heated rooms, and take it out from four to four hours for sucking. Do not forget that, in case of primiparous ewes, the percent of good mothers is very low. We strongly recommend, in case of use of females for reproduction at 8 - 10 months old, an adequate feeding technique, in order to obtain a body weight of at least 50% from adult ewes body weight at 6 - 7 months old.

Through importance of intensification of reproductive activity, it's obvious that use of young females from young ages it is a good choice only when body weight is at least at 50 kg (about 70% from adult body weight).

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