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Factors affecting the reproductive abilities of karakul sheep

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Abstract

The paper contains materials on the study of the effect of the prolificity factor on the reproductive capacity of Karakul sheep in desert and semi-desert zones of Uzbekistan.

Keywords: Karakul sheep, desert, semi-desert, pasture, type of birth, double litter, one-sex, multiple sex, multiple pregnancy, fecundity, timing of insemination

Introduction

Increasing the economic efficiency of karakul breeding and ensuring competitiveness are closely interrelated with the increase in the productivity of sheep, the quality and quantity of products received.

The progress of the industry in this direction is determined by the level of introduction of promising innovative technologies that provide for an increase in the production of karakul sheep products, rational and comprehensive use of the biological capabilities of animals.

The current stage of development of karakul breeding is characterized by an increase in productivity with the use of the biological potential of sheep, which requires the rational use of reproductive ability, intensive growth of sheep's livestock, improving quality and increasing the number of products produced.

In this regard, the rational use of reproductive ability is of scientific interest and practical importance.

In the Karakul sheep breeding of Uzbekistan with the use of the Askanian multi-breed type, the Carnabian multi-breed type of Karakul sheep was created, endowed with a high biological ability of multi-fertility.

The goal of the present work is to identify and use the high biological ability of Karakul sheep in the desert and semi-deserts of Uzbekistan.

To realize this goal, development of ecology-breeding methods in conditions of deserts and semi-deserts is considered urgent, providing for an increase in the production of products using the biological potential of sheep, reducing the cost of production to a minimum level and increasing the profitability of the industry.

Material and Methods. The experimental part of the work was performed in the "Sahoba ota" breeding plant in the Nurabad region of the Samarkand region on the animals of the Carnaba plant type of multiparticulates

Karakul sheep (experience) in the local population (control) in the breeding plant "Nurata", Nurata district of Navoi region in conditions of semi-desert pastures in the deserted and karakul sheep. (Photo 1-2-3)

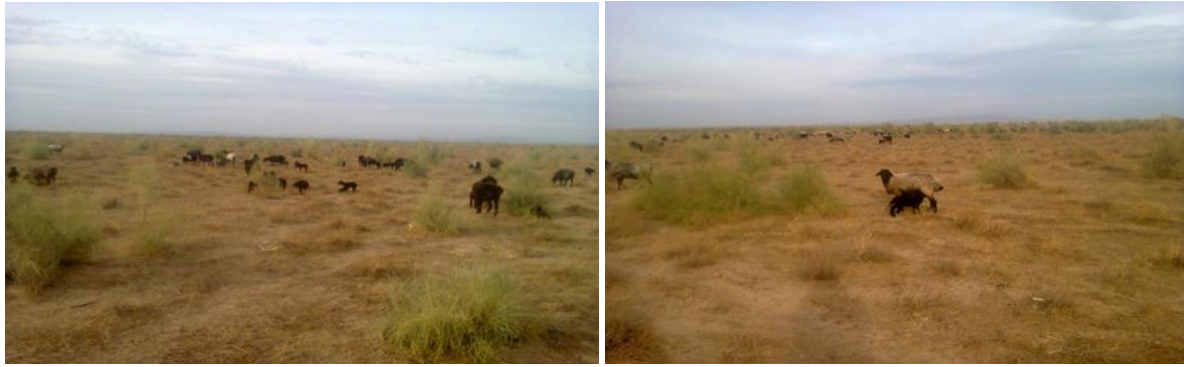


Photo 1: Desert pastures

To research the effect of the timing of insemination on the multiplicity of sheep in the period of lambing, the uterus that gave birth to double lambs, inseminated for decades breeding season.

To research the influence of rams on the multiplicity of the ewes were inseminated by a sheep, born in the number of same-sex and opposite-sex doublets with uterus born in the number of same-sex, different-sex and single-birth type of birth.

Results of the research

In research on the study of the factors influencing the polycarpic of karakul sheep of different genotype, the

fecundity of sheep was taken into account, depending on the timing of insemination (Table 1).

The data obtained show that 48.1% of the test group of ewes were inseminated at the beginning of the season, in the middle of the season, 36.7%, and at the end of the season 15.2% of the ewes.

Analysis of the production of lambs as a function of the time of insemination shows that the fecundity was 119.7% in the uterus of the inseminate in the first decade, which was more than in the case of the inseminated uterus in the second decade by 9.4% and from the inseminated uterus at the end of the decade by 11, 4%.

Table 1: Multiplicity of sheep of different genotypes depending on the term of insemination.

| Group of Karakul sheep | dates insemination | The ewes was inseminated | | Obtained lambs, head. | fecundity% |
|------------------------|--------------------------|--------------------------|------|-----------------------|------------|
| | | гол | % | | |
| Multiplicity of sheep | Beginning of the season | 76 | 48,1 | 91 | 119,7 |
| | The middle of the season | 58 | 36,7 | 64 | 110,3 |
| | The end of the season | 24 | 15,2 | 26 | 108,3 |
| Local population | Beginning of the season | 56 | 49,5 | 66 | 117,8 |
| | The middle of the season | 39 | 34,5 | 42 | 107,6 |
| | The end of the season a | 18 | 15,9 | 19 | 105,5 |

In the control group, among the ewes of the local population, the arrival in the rut was 49.5% in the first decade of insemination, in the second -34.5% and in the third -15.9%, respectively.

Data on the fertility of the ewes of the local population shows that this indicator in the ewes inseminated in the first decade amounted to 117.8%, which was 10.2% more than in

the second decade and 12.3% in the third decade, respectively.

In studies, the influence of rams born in a double litter of different types of birth on the reproductive capacity of ewes raised in desert and semi-desert conditions was studied. (Table 1 and 2).

Table 2: Воспроизводительные способности маток в условиях пустынь Reproductive abilities of ewes in deserts

| Type of birth | | Number of inseminated ewes | Fertilized ewes | | The resulting lambs, head | prolificacy |
|----------------------------------|---------------|----------------------------|-----------------|------|---------------------------|-------------|
| Rams | Ewes | | head | % | | |
| Double litter (single-sexed) | Same-sex | 16 | 15 | 93,7 | 19 | 126,6 |
| | different sex | 18 | 16 | 88,8 | 18 | 112,5 |
| | singleton | 102 | 98 | 96,1 | 101 | 103,1 |
| Total | | 136 | 129 | 94,8 | 138 | 106,9 |
| Double litter of different sexes | Same-sex | 12 | 11 | 91,6 | 13 | 118,1 |
| | different sex | 17 | 16 | 94,1 | 17 | 106,2 |
| | singleton | 113 | 108 | 95,5 | 110 | 101,8 |
| Total | | 142 | 135 | 95,1 | 140 | 103,7 |

The results of the conducted studies show that the fertility of the ewes in the selection for twin-born babies of the same-

sexed type of rams born with ewe and different sexes double-sexed ewes and the single-type type of birth in desert

conditions was greater, (8,5; 6,3; 1,3%) than at selection to rams born to twins of different sex type of birth with uterus

of same-sex and different -sex double and single-type type of lambs birth.



Photo 2: Evaluation of the quality posterity

The same tendency was observed in the selection with single-headed double-headed rams birth with the same-sexed ewes and heterozyte double and singleton type of birth in semidesert conditions.

Fecundity of the ewes was more than in the selection with the double-headed rams of different gender type of birth with the same-sex and different -sex double-headed and single-parent types of ewes was more than 100 ewes 3.1; 3,4 and 1,4% respectively.

Table 3: Reproductive capacity of ewes in semi-deserts

| Type of birth | | Number of inseminated ewes | Оплодотворенные матки | | The resulting lambs, head | prolificacy |
|-----------------------------------|---------------|----------------------------|-----------------------|------|---------------------------|-------------|
| Rams | Ewes | | head | % | | |
| Double litter (single-sexed) | Same-sex | 8 | 7 | 87,5 | 8 | 114,2 |
| | different sex | 13 | 10 | 92,3 | 11 | 111,0 |
| | singleton | 137 | 134 | 97,8 | 136 | 101,4 |
| Total | | 158 | 151 | 96,2 | 155 | 102,6 |
| Double litter of different sexes) | Same-sex | 10 | 9 | 90,0 | 10 | 111,1 |
| | different sex | 14 | 13 | 92,8 | 14 | 107,6 |
| | singleton | 155 | 145 | 93,5 | 145 | 100,0 |
| Total | | 179 | 167 | 93,2 | 169 | 101,1 |

From the data obtained, it can be concluded that in the desert and semi-desert conditions the fecundity of the ewes was greater with homogeneous (♀ single-sex x ♂ single-sex) type of selection, than heterogeneous type (single-sex x ♂ different-sex) selection, which is evidence of the high concentration of the multiparticulate factor in twin animals of a homogeneous type of birth by sex.

insemination, testify to the fact that the fecundity in the ewes of different genetic groups that came rut at the beginning of the season was greater than in the late stages of insemination.

From the reproductive capacity of ewes divorced in different ecological zones, one can conclude that the multiparticle factor in the sheep of the prolific type was genetically more concentrated than the ewes of the local population.



Photo 3: Multiparous ewe

The conclusion: The parameters of the multiplicity of ewes obtained in the experiment, depending on the timing of

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