



Brief characteristic of Gissar sheep breed

Pedigree and productive abilities of Gissar sheep breed
Intensive and development of lambs
Remuneration of feed by high gain in body weight
Excellent adaptation to highland pastures

International interest to this breed



Problems of flock reproduction

- Opportunities to wide scale flock reproduction in aspect of great international and internal demand to the genetic recourses of this breed
- Relatively small level of lambs reproduction
- Ways for solving: scientific and practical approaches for solving this problem



Additional feeding strategy during preparation of ewes to mating

- Two groups of similar Gissar ewes were formed from animals of farmers and households flocks by 30 ewes in each.
- In the first group, during their preparation to mating was used additional feeding of concentrates by 0.3 kg/day.
- Second group – control – was kept without additional feeding.
- Duration of feeding was 30 days.
- Studied:
- Body weight, estrus synchronization, i.e. number of animals with estrus in short period of time, repeated estrus demonstration after mating



Results of additional feeding of ewes

criteria	Experimental group	Control group
Ewes body weight, kg:		
- At the beginning of experiment	58.6 ± 0.782	59.3 ± 0.569
- At the end of experiment	62.3 ± 0.387	56.4 ± 0.412
Gain in body weight: absolute, kg (-, +)	+3.7	-2.9
Average daily, g(-,+)	+123.3	-96.7
Safety of ewes, animals/ %	29/ 96.7	28/93.4

estrus activity at ewes (n=30)

criteria	Experimental group	Control group
Number of ewes, came to estrus, animals/%:		
-in the first decade of October	19 / 63.3	4 / 13.4
- in the second decade of October	8 / 26.7	5 / 16.7
- in the third decade of October	2 / 6.7	19 / 63.3
-repeated estrus	5 / 16.7	13 / 43.4
Total mated ewes, animals/%	29/ 96.7	28/ 93.4
Lethality, animals/%.	1/3.3	2/6.6

Results

- Natural method of mating was used. In the both groups were used two main sires and one reserve. Analysis of obtained data on estrus revealing and recording is showing that during mating period more synchronic estrus was at animals of the first group: in the 1 decade – 19 animals or 63.3%, in the second and third decades respectively – 26.7 and 6.7%.
- Low estrus activity in first and second decades was observed at ewes with traditional technologies (without additional feeding), respectively - 13,4 -16.7 %, and mass estrus of ewes was in the third decade -63.3 %, that is coincide with the extensive technology of sheep breeding

Strategy of additional feeding of ewes during pregnancy period

- Two groups of ewes were formed in the last period of pregnancy.
- Additionally 0.3-0.4 kg of concentrates and premixes per day were fed to the animals of experimental group. Duration of feeding was 30 days.
- **Studied:** prolificacy of ewes, number of lambed lambs, their growth and development, milk capacity of ewes.



Animals body weight gains and ewes milk capacity with the additional feeding

Indexes	Experimental group	Control group
Ewes body weight:		
Before lambing, kg	56.4	53.5
After lambing, kg	50.8	47.2
Body weight of lambs (male and female):		
- at lambing, kgr	4.70	4.40
-at 20 day age,kg	11.3	9.5
Absolute gain in body weight, kg	6.6	5.1
Including average daily, g/day	330	255
Ewes milk capacity, kg/day	1.65	1.27
Differences in groups, +, - %	+0.38 (29.9%)	-

Results:

Additional feeding significantly increased fatness of ewes as well their prolificacy. Body weight of experimental group animals was to 2.9 kg or 5.4% more before lambing and to 3.6 kg or 7.1% more than their analogs in control group. From 30 ewes of experimental group were obtained 27 lambs (83.6%) and from ewes of control group – 15 lambs (50.0%)



Ewes milk capacity in the experimental group was on average to 0.38 kg or 29.9% higher. Relatively high milk capacity promote to intensive growth and development of lambs.

In the period of until 20 day age body weight of the experimental group animals was to 1.8 kg (18.9%) more. Absolute daily increase in body weight was higher to 75 g or 29.4% in comparison with the analogs from control group.



Main results

- Additional feeding of ewes during their preparation to mating promote to increasing of estrus synchronization as well active manifestation of estrus at the experimental animals;
- Ensuring the physiological needs of pregnant ewes in the major nutrients and mineral substances allows the full revelation of the hereditary qualities of their fertility, as well as to intensive growth and development, increasing the resistance of the lambs

Gratitude

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Thank you

