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TECHNOLOGICAL METHODS OF QUANTITATIVE AND QUALITATIVE STIMULATION OF SHEEP MILK PRODUCTION

I. B. A. ISDRARIU [1], Bianca CSIZMADIA [1], Loredana VĂDUVA [1], Cornelia PETROMAN*[1]

[1] Banat's University of Life Sciences "King Mihai I", Faculty of Management and Rural Tourism, Timisoara

*Corresponding author's e-mail: c_petroman@yahoo.com

Abstract: *The milk obtained from the sheep species has a double importance, biologically, being the only source of food for lambs in the first weeks of life and commercially, as it represents an important source of profit for farms through the production of milked milk and the commodity milk distributed on the market as products processed. Extending the lactation period by ensuring the nutritional needs for maintenance and production, contributes to the increase in total milk production and the increase in the amount of milk produced can be stimulated by moving calvings in February as a beneficial solution and increasing the number of milkers. Improving the quality of sheep's milk can be done by controlling genetic and internal and external environmental factors using the most efficient methods of directing selection and improvement actions through nutrition management, based on individual variations in the amount of fat and protein content, but also the control by managerial measures of the sheep exploitation factors in different production systems.*

• Introduction

Sheep specialized for milk, meat or mixed production can use practically all types of forage, including residues from large crops and even grass from the edges of emissaries, mountain lakes and ditches. The abundance of fodder resources, we believe, is the key to a profitable production of milk obtained from sheep. The successful farmer must also have a genuine business interest, management skills and skilled human resource for raising and operating sheep on specialist professional dairy, meat, or mixed farms. Raising sheep in different production systems using different feed resources presents several advantages and disadvantages that make the operation efficient or less efficient. The main advantages of raising and exploiting sheep in different production systems reside from the fact that sheep:

- convert roughage as primary feed into milk, meat and wool;
- helps to combat some weed species on natural meadows;
- contribute to the protection and preservation of the natural environment;
- for good milk production, sheep require a minimum amount of additional feed;
- provides at least three sources of cash income: meat, milk and wool;
- sheep, due to the short period between generations, can provide a quick profit for farmers;
- requires few inputs for efficient exploitation for milk production;
- sheep milk production does not require sophisticated facilities and equipment for processing;
- the demand for sheep products on the market is high, there is a tradition in the consumption of products obtained from sheep.

• Material and method

Practice shows that although the same environmental conditions are ensured, within each farm and the same breed or flock of sheep, there are individuals that produce small quantities of milk for lambing and marketing and females that produce quantities of milk close to potential and even more much during a lactation period. For these reasons, in order to increase the quantitative production of milk, we carried out research in professional breeding and exploiting sheep farms of the Turcana breed, in Gorj County, where we have analyzed the factors that contribute to the non-achievement of individual and total milk production at the potential of the breed, with the aim of finding new solutions and methods for increasing the quantitative and qualitative production of milk, depending on the production system implemented in each farm studied.

• Results and discussions

1. **Genetic factors** influence the amount of milk obtained from lactating sheep because in each flock of Turcana breed there are individuals with different productive potential, according to research undertaken on the control of milk production in sheep with:
- minimum productions below the breed's genetic potential of only 35.00-37.80 kg per lactation;
- maximum productions of 260.6-278.0 kg per lactation;
- average productions per lactation between 38.70-261.20 kg.

2. Because some **internal factors** have a major influence on milk production in sheep, nutrition management, by controlling feed rations, can be one of the most effective managerial methods to increase milk production:
- increase milk secretion, through stimulating feeding starting from the second part of pregnancy;
- the production of large quantities of milk through managerial measures, for 1 liter of milk predicting 0.75-080 UN and 85-90 grams of digestible crude protein above maintenance needs;
- the use of sheep's ability to convert roughage into protein/milk and the decrease of concentrated feed in milk production, during the exploitation period on natural pastures, as it is not effective in the classic exploitation in stables because it causes the decrease of milk production by 12.70%;
- extending the lactation period from the second half of February to the first week of October.

3. **External environmental factors** have a major influence on milk production both quantitatively and qualitatively if the production management implemented in farms does not ensure:
- quality water in sufficient quantities;
- balanced nutrition associated with lumps of salt;
- production conditions necessary for the physiological state of lactation.

• Conclusions

The improvement of quantitative milk production through technological methods of sheep exploitation can be carried out by controlling production according to the genetic value of the herd from each farm, through controlled selection activities, crosses with specialized breeds and by balancing fodder rations, through modern methods of management of nutrition. Management measures can contribute through balanced stimulating feeding after lambs' weaning, to increasing milk secretion and obtaining a quality milk if the optimal energy-protein ratio is respected in the fodder rations, but also by extending the duration of lactation which contributes to increasing the total milk production per lactation.