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TECHNOLOGY OF SHEEP BREEDING

Abstract

The results of research work on the study of effective feeding of sheep of the farmed "Azhar" Zhambyl district of Almaty region.

Key words: sheep, sheep breed, lines, meat, wool, selection, meat seed, lamb.

Introduction

Following technologies are used in sheep breeding: pasturable, year-round stabling, stabling-pasturable and pasturable-stabling.

At present time sheep breeding uses technologies which are based on the extensive use of pastures. The animals are kept on natural pastures all year round, and in winter they are fed with coarse and concentrated feeds. Sheep grazing requires a strictly considered plan because pasture vegetation is not the same in different seasons. Pastures can be long-fallow, mountainous, forest, virgin and marshy lands.

Virgin pastures can be used in spring when the grass is still green or in autumn when the grass is green from the rains. Grass of fallow pastures burns less and can be used in summer. Mountain and foothill pastures are used in summer before rainfalls start. Forest pastures are the least suitable for sheep. In hot areas where droughts are possible, firstly, fescue and bluegrass - wormwood pastures are used to feed sheep. The second place of feather grass pastures but they should be used no later than in May and early June, when seeds of feather grass are not ripe. They heavily pollute the sheep wool or they pierce the skin, leading to animal diseases.

But if natural grassland is not enough sheep are transferred to the basis of stabling technology. Technology of year-round stabling is used in the areas with intensive agriculture and developed fodder production. Sheep breeding with this system is used in Siberia and Central Russia. Permanent buildings with insulated roofs and attic covering are built for animals. Pasturable-stabling technology of sheep breeding is applied in the North Caucasus and Pre-Caspian regions. Sheep farmers prefer to stabling-pasturable system in the areas with lots of pastures but harsh winter.

Pasturable-stabling system is characterized with presence of lightweight verandas for sheep at winter pastures which are called bases. These bases are mounted for sheep if the winter is of short duration and temperature does not drop below -20°C . A simple sheepfold with low walls is built and closed part of the base is used only for lambing if the winter is with strong fluctuations in temperature and winds.

Large sheep farms divide ewes, young stock and rams into special flocks and during stabling period they are in different sheepfolds. If the number of sheep is small the entire herd is placed in one place that is partitioned with shields or feeders in order to divide the sheep by sex and age.

Currently farmers use a lot of manual labor in sheep breeding, they often combine traditional technologies of sheep keeping, which leads to higher costs; pasture and forage lands are poorly managed and all of these reduces the profitability of sheep farming. It is necessary to use modern technology to reduce production costs.

For example, new technologies of sheep breeding allows maximum use of forage lands on the pasture or in paddocks, fenced off with portable fences. Lambs of 20 days age can be fed directly on the pasture with the help of mobile hopper- feeder. Modern sheep farms use movable cages in order to improve safety of young stock. Ewes are fenced off together with youngsters. Mobile sheds-shelters are used to protect sheep and lambs from solar radiation, high temperatures, wind and rain. The modern system of fenced grazing involves the rational use of pasture land. Number of grazing days in the paddock is counted by the data of pasture yield and number of sheep, given that the 1 sheep should not be more than seven days on the one of pastures.

Objects and methods of research

The following methods are used in sheep breeding

- Pure-breeding;
- interbreeding (several types).

Under purebred breeding we understand the pairing of animals that belong to the same breed. It is mandatory for sheep breeding farms, and for those farms which purpose is to obtain products from special sheep. For example, commercial Karakul farms work with an aim to produce high quality lamb pelts; in this case, they can't interbreed other breeds of sheep, except Karakul breed.

One of the most common methods of pure breeding is the refreshment of blood. It implies mating ewes and rams of the same breed, but grown in different production conditions. This method is very relevant in those circumstances, when there were signs of depression, and as a consequence, reduced productivity, fertility and viability of the animals.

As we have said, the methods of sheep breeding include interbreeding. This process is carried out between representatives of different breeds.

Such methods of sheep breeding provide the ability to quickly influence the offspring in the right direction. Crossbreeding has a wide range of applications - improvement of the different qualities of breed, gaining new and increasing productivity.

Following types of crossbreeding are used in sheep breeding:

- introductory or as it is called "admixture of new blood";
- industrial;
- reproductive or fabricated;
- absorbing or transformative;
- variable.

Introductory crossing is used to eliminate some of the shortcomings of ewes. To this end, females are mated with rams of another breed, similar in productivity, character, but having the best signs of offspring development and quality.

Industrial crossbreeding is used to increase performance of wool, meat and the like. Pairing of two or more breeds can be done for this. The first generation will have a high energy growth, good pay of fodder by production.

Methods of breeding sheep also include hybridization

This crossing of animals belonging to different breeds. This method was developed by M.V. Ivanov, when crossed merino sheep with wild mouflons. He managed to get a very fertile offspring.

It can be concluded that breeding of sheep at home is very painstaking process. It requires lots effort and has many important aspects. Nevertheless, in this case, you can quickly get the revenue and valuable food.

Results and analysis of the research

Per each ewe the Southern farms receive 20-25 kilos of meat every year, and Yaroslavl farms — up to 80 kg. This is the meat productivity of famous Romanov breed sheep. And this is

not a theoretical number. This production has already been produced by all advanced farms. And advanced farmers get 350-380 lambs to 100 ewes from separate groups of animals. This means that leaders of sheep breeding get 100 kg or more kilograms of meat a year from each ewe!

But for successful development of the Romanov breed sheep, and other areas, we need to know how to use its great potential; and it needs to apply modern industrial technology to ensure the growth of labour productivity, the industry profitability. In the past attention of the farms to this industry was weakened. Small farms of Romanov breed sheep dominated and they contained only 30 to 50 ewes. There was not appropriate zoo-technical control and was little care about the conditions of sheep keeping.

Farm management thoroughly understood the reasons for backlog of sheep breeding and had taken steps to remedy the situation. First of all, they had a number of organizational and economic measures on implementation of sheep breeding new organization and new technology. The most important of them were concentration and farms specialization.

Sheep breeding was concentrated in one of the brigades. 4 animal sheds, a forage kitchen, water pipe, an equipped point of artificial insemination and a place of rest for sheep breeders were built near the pastures on the dry and elevated land plots for animals' accommodation. Elevated and dry plots of natural lands were given for sheep grazing with longstanding cultural pastures near to them.

Sheep breeding became a major industry for the brigade. In this connection, attention to the procurement of high-quality forage was increased: small-stalked June hay, well-crushed cereal-legume silage and a sufficient number of concentrated feedstuff. Salary of sheep breeders depends on the quantity and quality of the resulting products. The brigade is on costs accounting. It encourages people to achieve high performance.

The farm management pays serious attention to the breeding improvement. The farm constantly makes a selection of female lambs from multiparous ewes, and sheep selection by their coat quality.

The young sheep are kept mostly on cheap green feed. In recent years silage was begun to enter into the diet of sheep— three kilograms a day. And it has paid off: fatness and milk production of ewes were increased. Young stock readily eats silage too.

Five permanent employees take care of the sheep. Mechanization of water supply, feed transfer, an implementation of large -group and winter-grazing of sheep have been helped to increase the number of ewes with lambs up to 125 and they are served by one sheep breeder. Whereas the load of most farms in the Central areas does not exceed 60 ewes. Productivity of sheep was increased. Sheep farming was unprofitable before.

The most effective activity to increase sheep production efficiency and simultaneously to reduce dramatically the cost of production was a creation of long-term cultural pastures, partitioned on 8-9 paddocks for each flock. Grazing on such lands for 14-16 hours a day (3-4 days in each paddock) and animals do not almost need feeding with concentrates. The sheep reach the highest fatness only on the pasture forage.

In the North-Western regions of the country a hectare of medium quality cultivated pastures gives 170 centners of green mass or 40-45 quintals for each of the four cycles of grazing. Daily requirement of an adult sheep is 7 kilograms of grass. 190-200 sheep can be grazed on the hectare of land during three days or 550-600 heads of sheep on the paddock with area of three acres. It provides great savings in labour costs. We do not need to hire additional herder, which is often still practised, and only one shepherd will be able to watch two or three, and sometimes four flocks at once.

To increase productivity during stabling period a farm in Tutaevsk district built a large shed for 400 ewes with lambs. The feeders in group cages were placed along the feed passage and feeders or conveyors could be used for feeding. Group automatic drinking bowls are

installed for mechanized watering - one for two adjacent cubicles. Manure with litter are cleaned by a bulldozer where cages' lateral removable panels and partitioning are removed. Every shepherd is able to serve 300-350 and more animals in winter with the help of such simple mechanization and large-groups of sheep.

Sometimes we can hear the most conflicting opinions about sheep breeding in farms of Nonblack Soil Zone. Someone even tries to prove that this industry is disadvantageous in local conditions and the deal with sheep breeding makes little sense.

However, the experience of many farms proves the opposite.

The conclusion

The profitability of this business is too high to be named, but the income will be stable. It is very important to create a competent and real business plan before the organizational work begins. The profitability is affected by two main points: the availability of the territory for grazing, fodder base and the scale of breeding.

Regardless of the livestock chosen, the livestock business is profitable only when there is a nearby grazing area. The cost of renting land depends on different indicators and can fluctuate very significantly. The proximity of populated areas, developed infrastructure significantly raises the price of land, for sheep breeding these parameters are not necessary, it is possible to rent land for sheep breeding because of the unpretentiousness of these animals. The ideal option, of course, will be the availability of their own pastures. But, if you need to rent land, it is very important to calculate the necessary number. Making a business plan for the farm, it is very important to calculate the amount of land for pasture.

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ТЕХНОЛОГИЯ РАЗВЕДЕНИЯ ОВЕЦ

Аннотация

В статье приводятся результаты научно-исследовательской работы по изучению эффективного кормления овец разводимых в хозяйстве «Ажар» Жамбылского района, Алматинской области.

Ключевые слова: овцы, порода, шерсть, отбор, подбор, шерстные породы, ягненок.

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Андатпа

Мақалада Алматы облысы, Жамбыл ауданындағы «Ажар» шаруа қожалығында өсірілетін қойларды азықтандыру тиімділігі бойынша ғылыми-зерттеу жұмысының нәтижесі келтірілген.

Кілт сөздер: қой, тұқым, жүн, іріктеу, жұптау, жүнді тұқым, қозы

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КИСЛОМОЛОЧНЫЕ ПРОДУКТЫ С ПРОБИОТИЧЕСКИМИ СВОЙСТВАМИ И ПРОЛОНГИРОВАНИЕ СРОКАМ ХРАНЕНИЯ

Аннотация

В статье приведены данные кисломолочных продуктов с пробиотическими свойствами а также изучена сроки хранения, биохимические, физико-химические показатели процесса ферментации.

Ключевые слова: пробиотики, кисломолочные продукты, бифидобактерии вида *Bifidobacteri* и *longum*, *Bifidobacterium* *Bifidum*, соевая мука, соевый белок.

Введение

В настоящее время требуется совершенно иной подход к созданию пищевых продуктов нового поколения с высокими функциональными свойствами, поскольку при нынешних технологиях все продукты проходят чрезмерную работу и в результате, теряют большую часть биологически активных веществ. Поэтому и дефицит их в питании населения огромен: белка 25%, витаминов 50%.

Вследствие этого государством установлены основные приоритеты в области здорового питания, к ним относят:

- ликвидацию дефицита полноценного белка;
- ликвидацию дефицита микронутриентов;
- создание условий для оптимального физического и умственного развития детей;
- обеспечение безопасности отечественных и импортных пищевых продуктов;
- повышение уровня знаний населения в вопросах здорового питания [1,2,3,4,1].

В настоящее время перед всеми отраслями пищевой промышленности стоит задача производства продуктов, обеспечивающих безопасность жизнедеятельности организма: продуктов высокого качества и с высокими потребительскими свойствами, так как качество и ассортимент определяют состояние здоровья населения.

Бифидобактерии все более широко используются при производстве продуктов функционального питания и фармакологических биопрепаратов. Одним из важнейших