

MANAGEMENT OF DAIRY CATTLE

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Abstract: Management of dairy cattle is a crucial factor for optimal production on dairy farms. It helps in the successful management of several factors necessary to maintain a high level of milk production. They are enabling optimal nutrition of the cattle, enabling the conditions for normal reproduction of the cattle, enabling optimal living conditions for the cattle and optimal lactation of the cattle. In addition to these factors, there are others, among which are the management of weather changes, the provision of efficient and effective transportation and the management of financial costs. Therefore, it is necessary to create systems that include all these elements, which makes the management of dairy cattle quite complex.

When all these conditions are met, it is necessary to constantly evaluate them in order to detect potential changes that may affect dairy cattle. In that way, efficient and effective operation of milk production farms is enabled.

Keywords: dairy, cattle, production, management, farms

1. INTRODUCTION

The efficient and effective operation of milk production farms depends on several factors. In this paper we will analyze some of them, which we consider to be the most important for the efficiency and effectiveness of milk production. Livestock management can be very complex, as it is a multidisciplinary endeavor that includes the biology of the livestock, ergonomics and the conditions required for its optimal living on farms, as well as transport and financial aspects.

We will first focus on the animal's nutritional needs, and then we will analyze the animal's reproduction conditions, the animal's living conditions, and many other aspects.

2. NUTRITION AND FEEDING OF DAIRY CATTLE

The most important thing in the process of optimal nutrition and feeding of dairy cattle is the knowledge of the amount of food that is recommended for dairy cattle. The golden rule in this matter is that dairy cattle should receive more nutrients than they produce in milk. Therefore, it is important to modify the process of planning the consumption of food for dairy cattle in its dry state, that is, how much food weighs after the water extraction process.

There are several official measures to which most of the world's dairy farms are adapting:

- Adult non-pregnant dairy cattle- 1.2% of body weight
- Pregnant dairy cattle that are not lactating-2% of body weight
- Lactative dairy cattle - 1.2% of body weight plus 5 kilograms of food for 10 liters of milk produced

The basic principle for the nutrition of dairy cattle

The basic principle for the nutrition of dairy cattle is that the cattle should get enough energy from the food that they can get through the intake of fats and starch. Starch can be introduced through different types of feed that can come in different forms such as wheat, maize, barley etc... The fermentation of cereal crops is the reason for the production of lactose in milk. Dairy cattle should also have fat intake in their diet, ie 6% of the total food intake. Sources of fat can include cottonseed, oils and brewers grain. Basically, solid fats are better for dairy digestion than liquids. Dairy cattle also need a daily intake of vitamins. Most types of fodder contain the vitamins and minerals needed by dairy cattle in the required amounts. But it should not be forgotten that dairy cattle need vitamin supplements outside of the season when farms use dried fodder. (Novkovic, Shomori, 2016)

Selecting forage

Management of forage stocks depends on two important factors. One of them is the maintenance of fodder and the retention of nutritional values and storage of fodder. Most livestock farms use grass as the cheapest forage that contains many quality characteristics. To maintain the fodder it is necessary to use the procedures of fertilization, irrigation and grazing rotation. Due to the lack of quality grass for grazing, most farms can be oriented towards supplements and alternatives, while farms that have a sufficient amount can be oriented towards drying the sufficient amount of grass and preserving it for future food.

But there are other types of forage that farms can use that contain very high nutritional values. Farms can also maintain and store maize, grass legumes, barley and other types of forage.

Feeding management

One of the most important features of the process of nutrient intake through food in dairy cattle is access to quality food and clean water. According to scientific research in this field, lactating dairy cattle need 60-70 liters of water per day, but also an additional intake of 4-5 liters of water for each liter of milk produced. In order to change this, it is necessary to provide constant access to water for dairy cattle.

Dairy cattle usually use most of the water after the lactation process, which is why it is necessary to provide sufficient space for placing water troughs. It is also necessary to make a constant availability of fodder throughout the day. It is also necessary to modify the space in such a way that each individual dairy animal can have access to fodder and water, in order that the dominant individuals do not attack the younger individuals and do not deny them nutrition. First, feed should be done with fodder, and later supplements with nutritional concentrates should be used. The golden rule in this regard is to use a kilogram of concentrate for every 2 liters of produced milk. This ensures that the dairy cattle receive sufficient nutritional values through the diet. (Birovlev, Tomic, 2009)

3. CATTLE REPRODUCTION

Managing the efficient and effective reproduction of dairy cattle requires careful planning by dairy farm management. Regardless of the volume of work and the size of the farm, every dairy farm needs to have systems for routine monitoring of the condition of dairy cattle.

By conducting regular analytical procedures, milk production farms can determine which dairy animals have changes, i.e. which animals are pregnant or sick. It is also necessary to make detailed plans for the accommodation of dairy cattle in the transition period between fertilization and birth, as well as plans for dealing with health problems in dairy cattle that may arise during pregnancy.

4. OPTIMAL CONDITIONS FOR ACCOMMODATION OF CATTLE

In order to create the ideal conditions for accommodation of dairy cattle, it is necessary to build optimal barns. Farms regardless of scale and size should use maximum resources in building the barns, in order to optimize the details for the comfortable exchange of dairy goods. The special factors bind productively to dairy cattle.

It is necessary to create stables that have enough space for comfortable accommodation of the dairy cattle, efficient and effective ventilation, space for food and troughs with water, etc. This affects the production of the color of the milk, but also affects its quality.

5. CONCLUSION

It is crucial to note that the process of managing dairy cattle is extremely complex. Therefore, it is necessary to make efforts to identify and compartmentalize the various factors that influence this process. In this way, dairy farm managers will be able to focus on influencing each of these areas.

Management of dairy cattle implies concern for health, living conditions, milk production capacity, future offspring, etc. The sustainability of dairy farms depends on many factors that farm managers must take into account when planning their daily activities. Therefore, it is necessary to identify and analyze these factors, while their control will enable more efficient and effective management of dairy cattle.

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