

DATA MANAGEMENT AND PRODUCTION QUALITY

Problem: A precise and timely data collection among all the players in the supply chain allows the farmer, who is also an entrepreneur, to better manage his herd. The phases of data collection, processing and subsequent analysis that lead to decisions require accuracy and precision, under penalty of a distorted view of the company and its real strengths and weaknesses.

In the context of milk production and quality, monitoring should therefore take place through the assessment of chemical-physical and sanitary parameters (fat content, proteins, CCS, CBT ..).

Producing in terms of quantity but above all quality allows the economic sustenance of the company and greater competitiveness on the market.

Production is regulated by many factors, some of which can be directly influenced by the farmer, such as a correct milking routine, feeding, bedding management, reproductive management, while others, such as breed and genetic lines are the result of longer-term choices.

An expression of incorrect management of the flock with direct repercussions on the quantity and quality of production is the health status of the udders which is expressed with the incidence of cases of mastitis. This inflammatory pathology affecting the mammary gland can have causes of an infectious or non-infectious nature and involves an increase in costs for the breeder for the use of drugs and an increase in recovery costs.

Solutions: The farmer should therefore focus on all those management practices that affect the quantity and quality of production.

The correct milking routine should be applied in all its phases, from those before to those after the actual milk collection. The frequency and interval between each milking should also be adequately considered. In addition, the management of reproductive activity should take into account the most appropriate moments to plan the parts according to environmental conditions and the availability of forage resources. Finally, the rationing technique and the methods of formulating the ration play a fundamental role since they allow to satisfy the nutritional needs of the animals, allowing them to best express their genetic potential and to better cope with production stresses. In this sense, monitoring the quality of milk is essential as an indicator of the correct composition of the ration.

Practical recommendations:

- make sure that the litter and the environment in general are clean;
- check the regular trend of the lactation curve;
- monitor the microbiological quality of milk through bacteriological tests both on bulk milk and on individual milk;
- regularly carry out pre-dipping and post-dipping practices in the milking routine, to limit the risk of bacterial contamination. The solutions used must be properly diluted and stored in suitable containers and places;
- make sure that the milking parlor is functioning correctly in all its components. A vacuum level not higher than 42 and not lower than 36 kPa reduces the risk of bacterial contamination due to damage to the nipple orifice. The sheaths of the milking cluster must be intact and clean. The group should be washed daily after each milking and the entire system disinfected, taking into account the hardness of the washing water (hard water requires a greater frequency of disinfection of the system itself);
- the timely shearing of the animals allows to reduce heat stress thus leading to greater animal welfare and greater ingestion of food, with a consequent positive effect on production;
- monitor the values of fat and milk protein to identify abnormal situations such as the inversion of the rate of fat and protein which are indicators of dietary disturbances related to the balance between structural and non-structural carbohydrates in the ration.