

Environmental hygiene and biosecurity within dairy farms: a systemic approach to the prevention of cross-contamination

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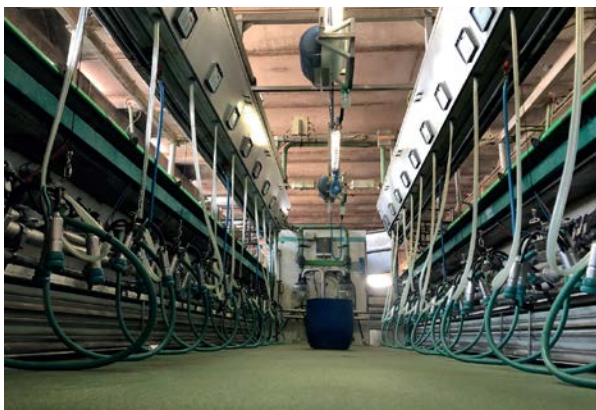
One of the main objectives of a modern dairy farm, it is definitely to produce a healthy and qualitative milk, optimizing its production processes. Achieving this goal is closely related to maximizing animals' immune defenses by reducing stress and by achieving high standards of animal welfare. It is also necessary to minimize the exposure to the risk of infection through biosecurity processes, thereby reducing the consumption of antibiotics and related medical costs for the management of animal diseases.

Biosecurity refers to the set of procedures that guarantee the safety of environments, living beings and products by the presence of pathogenic biological agents. The biosecurity approach will be applied by the relevant authorities to the dairy farms according to the European Strategy 2015 – 2030 through risk assessment: farms will be classified into risk categories and surveillance plans will be drawn up in relation to the category in which the company has been placed.

The evaluation parameters will be: biosecurity, animal welfare, the use of antibiotics and veterinary medicines and food safety. In detail, biosecurity will assess the level of insulation of the farm, the organization and hygiene of facilities, equipment, men, animals and internal means as well as the management of animal handling.

Cleaning and disinfecting every day the teats of the cows, the milking plants, the milk coolers internally and externally, and the environments where cows can move, taking care of the protection and hygiene of the farm staff, positively impacts on the dangers of cross-contamination, dramatically increasing the level of biosecurity.

Several scientific sources inform us on how long pathogenic organisms can persist on surfaces that are not properly cleaned and disinfected. For example, sporigenic and non-sporigenic bacteria such as *C. Difficile* and *Staphylococcus* can potentially infect for more than 5 months on untreated surfaces, as well as viral strains of Adenovirus and Rotavirus can survive for more than 3 months. It is easy to derive the potential risk that is faced by not adopting even just some of the above-mentioned cleaning and disinfection practices.



For this reason, as Ecolab we are actively involved in the approach to biosecurity applied to the field of hygiene and disinfection in the dairy farms, with the aim of supporting agricultural entrepreneurs, advising and trying to simplify their daily work, adopting systemic practices.

This strategy fits perfectly with the World Health Organization's overriding objective, which is to progressively reduce the consumption of antibiotics within farms. The concern is well-founded: every year in the EU, antibiotic resistance causes 33,000 deaths and a health expenditure of 1.5 billion. According to the WHO, it is "one of the greatest threats to global health." One of the causes of the spread of antibiotic resistance is intensive farming. In Italy, about 70% of antibiotics sold (including those for human consumption) are destined for animals. Antibiotic resistance is also a serious problem for the health of the herd and, consequently, for the economic efficiency of the farming business. The path to reducing antibiotic use starts with biosecurity.

In conclusion, we can say that the future of our dairy farms will be increasingly linked to the environment in which they operate and to the ethical quality of their products. For this reason, **BIOSECURITY and ANIMAL HEALTH will be essential conditions for the sustainability of the dairy farms and of their dairy products.**

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