

Innovative project supporting mastitis management in the herd

by Leszek Ksobiech, manager, and Dr Urszula Teter, agri division manager, CID Lines Sp zoo, Poland.

Today, high quality milk production is one of the goals of dairy farmers and it is a very big challenge. One of the indicators of high quality milk is the somatic cell count (SCC).

The level of SCC in milk is also influenced by a number of factors including the season, race, number of lactation, age, stress and nutrition, etc. The Polish norm classified milk in extra class when the level of SCC is no more than 400,000 cells of 1 mL.

But the level of 200,000 SCC informs us about problems in the herd. Cows who produce milk with an increased level of somatic cells have lower efficiency, fat content, lactose and casein proteins, but higher levels of whey proteins. This leads to a financial loss.

Subclinical mastitis

Subclinical mastitis is a high risk for milk production. From an economic point of view this condition is much more dangerous than those which present visible changes in the milk and udder because they are invisible to the farmer. In this case, the reduced milk quality and efficiency directly influence a reduction in the farmer's income.

The technological value of milk as a raw material for processing is aggravated, which also causes measurable losses in the dairy industry. The economic impact of mastitis can be frightening.

Table 1. The sources of loss.

Source	Loss (%)
Unsold milk	5.7
Medical treatment	4.1
Veterinary service	1.5
Decreased milk efficacy	66.0
The costs of culling	22.6
The costs of additional work	0.1



Residue from a cluster during milking.

The estimated annual loss amounts to €182 per cow in Europe (assuming that, on average, one third of cows are infected).

In order to meet the expectations of farmers, CID Lines began implementing an innovative program called the Manage Mastitis Program. The aim of this program is systematic and long term cooperation with farmers, leading to improved microbiological parameters of collected milk and significant SCC reductions.

Finally, this has led to visible improvements in financial performance by increasing milk production, reducing the culling of cows due to mastitis, decreasing the cost of medical treatment of chronically ill cows and the amount of milk not suitable for sale because of the waiting period.

The first step of the program is 'Audit 0', which is a detailed analysis of the situation on the farm.

Step by step, CID Lines specialists investigate the living conditions of dairy and dried cows, heifers and calves.

Gaining information is possible by staying during the milking and by picking out critical points on the farm (these can be different on each farm).

Critical points

The critical points are the weak points of the farm, which lead to an increased level of somatic cells. Despite the fact that farmers have a good knowledge of the milking routine, they can still make mistakes when preparing cows for milking, as well as during and after milking. This is often due to a rush during milking by staff who does not have adequate knowledge or motivation.

Experience shows that implementation of even small changes in the milking routine can reduce the level of SCCs.

Conclusions are drawn and advice is then formulated based on data analysis and the results of the audit.

The implementation results in significant reduction of SCCs, which leads to improved economic effects.

Positive collaboration

CID Lines guarantees the positive effects of the program on the farm on condition that the farmer, CID Lines specialists and veterinarians collaborate together. If the farmer does not implement advice, it will be difficult to expect an improvement of the existing situation. The purpose of advisory services is to implement the most simple and cheapest solution possible.

Very often, changes of organisational structure are beneficial for the farmer. By implementing additional steps during milking, this should lead to an improvement of dried cows or service of the milking equipment.

So far, on the majority of farms in which CID Lines have implemented the Manage Mastitis Program, the positive effects resulting from the implementation of the proposed advice have been seen.

The company looks forward to further results of the program and is waiting for a growing number of participating farms. ■

Teats are prepared before milking. These tissues show the results in terms of cleanliness.

