

Credence for Dairy

Increased concerns and standards placed on human food makes it essential that no potentially harmful pathogens are spread into milk from the herd.

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BIOSECURITY MATTERS

Dairy producers need to make sure their milk is clean and free of harmful bacteria and toxins. Herd performance is based on the health and fertility of the cows, and their exposure to potentially harmful pathogenic bacteria. The increased concerns and standards placed on human food makes it essential that no potentially harmful pathogens or their toxins are spread into the milk from the herd – which can have a drastic effect on profitability of the farm.

Water and sanitising on dairy farms falls into three broad categories:

1. Water quality in troughs for drinking
2. Dairy parlour hygiene – washing down, hand cleaning, udder cleaning
3. Calf rearing including biosecurity, cleaning facilities and equipment.

Specifically looking at drinking water quality, three farms were selected for a trial investigating the problem of *Listeria monocytogenes* in drinking water on dairy farms. *Listeria* is a pathogen associated with milk and human health, as it is a serious disease in pregnant women and young or old people. The farms already had a history of *Listeria monocytogenes* contamination in milk bulk tanks. A water tank identified as being contaminated with *Listeria monocytogenes* on one farm was treated with 1 tablet Credence/1000 l water. The water was tested again after 20 minutes of adding Credence, and was determined to be *Listeria monocytogenes* free

In the dairy parlour, several aspects including hygiene in the building must be considered. In addition, the cleanliness of the udder is a key part of controlling contamination in milk. Credence can be used as an udder cleaner, and has been shown to be active on the udder for at least 6 hours. Trials conducted at Louisiana University in the USA have shown that udder washing with Credence provided a high level of mastitis control – as its penetration into the teat canal was very good. Credence has been shown to be effective against multiple causes of mastitis – including fungal.

Louisiana State University Trial – Udder health:

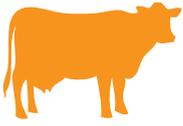
Microorganism	Reduction in colonising bacteria
<i>Staphylococcus aureus</i>	75%
<i>Streptococcus agalactiae</i>	65%

This leads to increased wound healing in animals with teat tears or udder lesions. The researchers found that the Credence also promoted teat condition, without resorting to creams, and was gentle on the milkers hands. In addition it can be used for rinsing clusters after use – ensuring no pathogens are remaining to colonise essential equipment. For cluster rinsing, 1 tablet per 10 litres of water is recommended, followed by shaking well to remove any excess solution. As Credence is safe enough to use in drinking water, no multiple rinsing is required, and 10 litres is sufficient for about 30 rinsings.

In calves, a trial was run on the contamination of teats from milk feeder bottle. Credence was applied as a spray to the teats at a concentration of 1500 mg/l for 5 seconds. The teats were swabbed 30 seconds after treatment for colonising bacteria, and compared to rinsing in water alone or no cleaning. A huge reduction in contamination was seen for the Credence treated teats, down to virtually zero. As calves are commonly infected by pathogens from contaminated feeding equipment, especially teats which are hard to clean effectively, this

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Credence for Dairy



represents a major reduction in risk for young animals. In addition, no multiple rinsing is required, as Credence is safe in suitable dilution for drinking water.

Treatment	No of Colonies		
	Tip of Teat	Base of Teat	Average
None (Control)	34.8	68.0	51.4
Water Rinsing Only	66.0	32.0	49.0
Credence	0.4	0.4	0.4

In all dairy farm buildings, animals may be exposed to pathogenic bacteria, protozoa and fungi, especially where walls and floors are regularly washed down and can remain damp. Swabs taken over a 15 day period from both milking parlours and calf pens have shown that using Credence after only 30 minutes from washing down (at 350 mg/l available chlorine) has an important impact on shed hygiene.

Percentage of Infected versus Uninfected Swabs taken for Bacterial Analysis from Dairy Farms

Bacterial Contamination	Milking Room Floor		Calf Pen	
	Control	Credence	Control	Credence
High Contaminated Swabs	75%	8%	62.5%	11%
Uncontaminated Swabs	0%	42%	0%	53%

From the results of this trial the Annals of the 23rd Brazilian Congress of Veterinary Medicine recorded that *"The use of the product revealed a quantitative reduction of the bacterial flora and no enterobacteria, which are most times associated with neonatal enteritis, were isolated from the calves pens, suggesting the efficacy of the product on the environments studied."*

As there is increasing concern regarding contamination from using potentially toxic disinfectants on farm, it is reassuring to know that Credence performed excellently in an EU residues study and in a 1995 impact study was confirmed as biodegradable and environmentally friendly.

