

4XLA[®]

**THE
ADVANTAGES
OF GOLD**

GERMICIDAL PRE- AND POST-MILKING TEAT DIP

Latest university study confirms 4XLA to be more effective than an iodophor

Experimental Challenge

This latest experimental challenge study has confirmed that 4XLA Non-Barrier Teat Dip (manufactured by Alcide Corporation), used pre- and post-milking, provides superior mastitis protection and control to that of iodophores. 4XLA also delivers excellent skin care and conditioning to reduce irritation from teat skin and teat end cracking and chafing.

Head-To-Head Testing

In head-to-head testing (pre/post) against both environmental and contagious mastitis-causing pathogens, cows treated with 4XLA had 58% to 69% fewer new infections than cows treated with a 0.5% iodophor product.*

University Tested

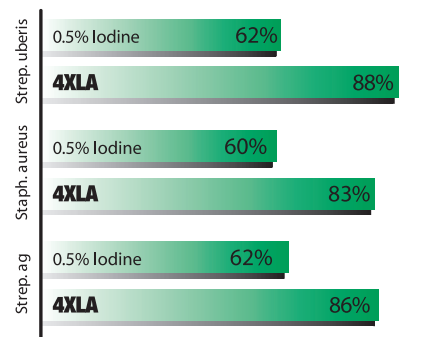
The experimental challenge study was performed in the spring of 1998 in a 320-cow, 10-week study comparing 4XLA to both an untreated control and a 0.5% iodophor as a positive control. *Strep. uberis* was applied pre-milking as an environmental pathogen while *Staph. aureus* and *Strep. ag.* were applied post-milking as contagious pathogens. Dipping of teats with 4XLA or an iodophor preceded milking and also followed the post-milking challenge infection. This university-conducted test clearly showed the superior performance of 4XLA compared to an iodophor.

*Theratec[®]

Efficacy of 4XLA and Iodine

Experimental Challenge**

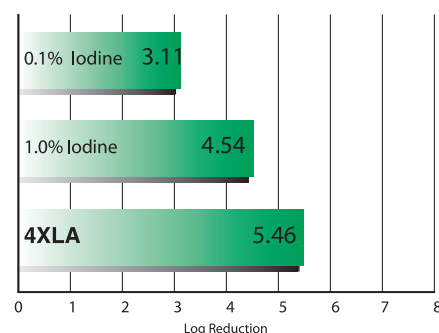
Percent Reduction vs. Negative Control



**Cornell University, 1998 Unpublished;
320 cows/10 week trial

In vitro comparison

Kill rate of *Staph. aureus* after 15-second exposure to 4XLA and typical iodophores.*



4XLA killed => 99.999% of the challenge organisms in 15 seconds.
*Two different commercial products.

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Features and benefits of 4XLA

4XLA is a patented germicidal pre- and post-milking teat dip which is based on acidified sodium chlorite. 4XLA contains lactic acid and 5% glycerin which provide teat skin conditioning and softening. The lactic acid component is also the acid activator component to the product. The product is sold as a two-part system: a Base solution of sodium chlorite, and the

Activator (lactic acid). For use, the two components are mixed just prior to application to generate the active component, acidified sodium chlorite. This material then undergoes a series of complex reactions to produce mixed oxychlorine oxidants which destroy the mastitis-causing pathogens on the teat skin surface.

The key features of 4XLA

Well tested and researched

4XLA has been tested extensively in University trials following NMC recommended protocols under both natural and experimental challenge conditions.

Fast kill of mastitis-causing pathogens

Only fifteen seconds post-contact time is required: 4XLA's unique germicides act much faster than iodophores in pre-milking applications.

Broad spectrum kill

Provides the power and spectrum to be both a pre- and post-milking teat dip for contagious and environmental mastitis-causing pathogens.

Softer teats & superior healing properties

The lactic acid component and glycerin work together to improve teat skin condition and

help heal eroded teat ends, cracked skin and abrasions to reduce skin-related mastitis problems. Lactic acid and glycerin are excellent humectants which attract moisture to facilitate skin-improving processes. Likewise, 4XLA is easy on milkers' hands.

No known residual contamination

Unlike certain iodophor products and all chlorhexidine products, 4XLA is residue safe. This is essential for pre-milking teat dips. The active oxidizing compounds break down into natural compounds found in milk and the environment.

Financial benefits

Improved control of mastitis-causing pathogens leads to better milk production and higher quality milk, which leads to higher premiums, fewer flare-ups and fewer problems due to poor teat condition.

Proven teat conditioning



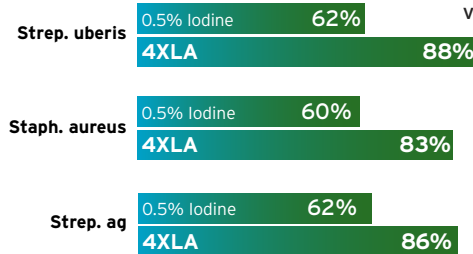
Environmental and contagious pathogens that cause mastitis are a common threat on almost all dairy operations. These teat health issues can lead to mastitis:

- Sore, damaged and hard teat ends provide an easy entry for mastitis-causing organisms.
- Unhealthy teat end tissue leaves gaps in the teat end orifice, reducing its ability to close up between milkings.
- Hyperkeratosis, a skin thickening process that leads to accumulation of dead cell layers on the teat end, makes the teat end harder to clean.

4XLA pre-and post-milking teat dip helps prevent mastitis, and helps clean up and reduce hyperkeratosis.

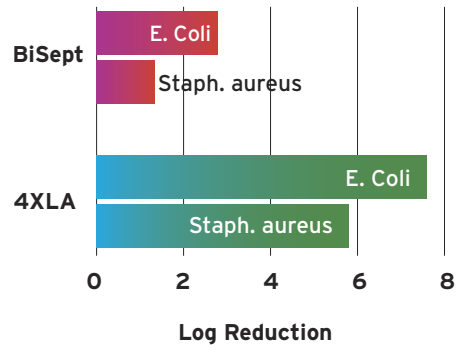
Efficacy of 4XLA and Iodine

On Cow Experimental Challenge**
Percent Reduction vs. Negative Control



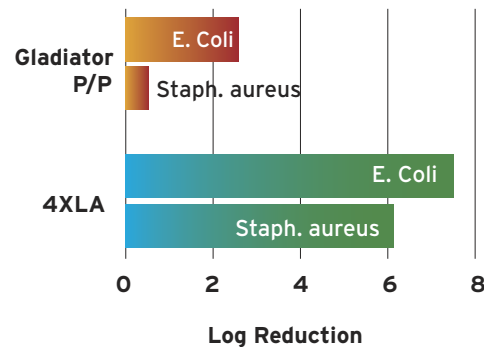
**Cornell University, 1998 Unpublished; 320 cows/10 week trial

4XLA vs. BiSept



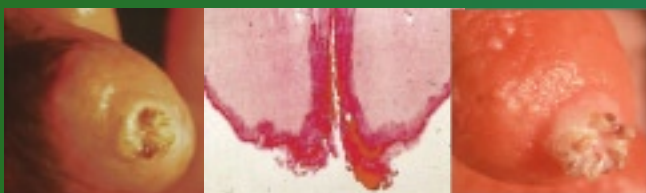
AOAC Germicidal Testing
10% Organic Milk Load,
15s Exposure

4XLA vs. Gladiator



AOAC Germicidal Testing
10% Organic Milk Load,
30s Exposure

Clean up and reduce hyperkeratosis



- 4XLA's lactic acid softens hyperkeratotic tissue for easier clean up
- 4XLA's acidified sodium chlorite reduces the formation of hyperkeratosis and improves skin healing
- 4XLA's glycerine conditions teats to better tolerate harsh weather conditions



Broad Spectrum Kill:

- 4XLA is proven effective against contagious and environmental mastitis pathogens.
- 4XLA is proven to control Staph. Aureus and mycoplasma in both pre- and post-dipping routines.

Quick Kill:

- 4XLA kills in 15 seconds or less.
- 4XLA beats iodine in kill rate during pre-milking procedures.
- 4XLA is effective milking after milking, year after year with no known development of a bacterial resistance.

No Residual Contamination:

- 4XLA is residue safe.
- 4XLA contains active oxidizing compounds which break down into natural compounds found in milk and the environment.

Tested and Proven:

- 4XLA proved its superior performance when stacked against iodine teat dips in university trials following NMC recommended protocols.
- 4XLA-dipped cows had 58 to 69 percent fewer new infections than cows treated with an iodine product in head to head testing.

**Contact your 4XLA distributor,
or call 1-800-392-3392, to learn more.**



Germicidal Pre- and Post- Milking Teat Dip

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