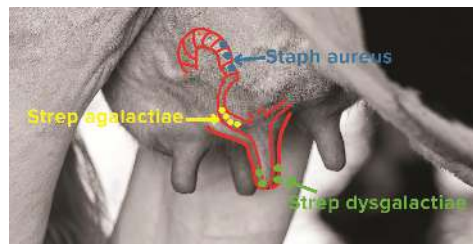




Managing a Mastitis Outbreak

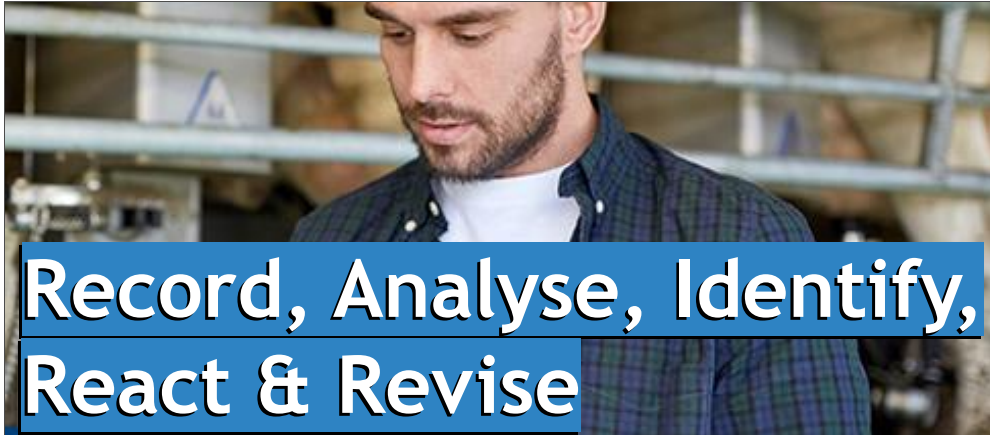
Early detection and management is crucial to minimizing the impact of mastitis in any dairy herd. At a cost of 200m a year to the UK market, mastitis can never be entirely eradicated but it certainly can be reduced greatly. Closely monitoring SCCs along with a proven and effective programme by Fourtress Dairy Hygiene guides you through each area with advice & solutions.





The Overview

- ▶ Record & Analyse, Identify, React & Revise - Using your SCC to your advantage.
- ▶ Identify the signs - Difference between Clinical & Sub Clinical.
- ▶ Clinical & Sub Clinical Mastitis - Prevent poor milk quality results.
- ▶ Bacteria at a glance - Staph aureus, Strep agalactiae, Strep uberis.
- ▶ Bacteria and Key Sources - Contagious, Environmental.
- ▶ Teat Hygiene & Care - Key steps to bacteria kill.
- ▶ Cost of mastitis to UK farmers - Calculated from several sources.
- ▶ Getting professional advice - Quick access to excellent hygiene results



Record, Analyse, Identify, React & Revise

To better manage out-breaks both clinical and sub clinical use your SCC to your advantage.

Milk Recording: Reviewing SCC records regularly & looking for changes, highlights problems early. An opportunity to act fast. Without records you are looking at a blank canvas.

Analyse Results: Examine milk records, make note of seasonal changes, note the lactation stage and determine whether the infections were clinical or sub clinical. Map a chart for the year ahead to minimise further out breaks.

Identify Problem Cows: Through culture sampling and identify the type of bacteria then removing the problem cows from the herd lessens the spread & further loss of profits.

Treatment: Revise your current parlour hygiene & teat care programme both Pre and Post milking to strengthen your whole approach before problems arise. A prevention plan will minimise losses and maximise production.

Management: Set feasible parlour hygiene goals train any farm help to ensure new standards are met. Take note of all out breaks, check against your current plan adapt changes and note when they were introduced against your future milk records.

Date of individual test: 21-1-2020	Tag No 0029	Tag No 5421	Tag No 6874	Tag No 3165
SCC	150,000	150,000	210,000	350,000
Indoor	yes	yes	yes	yes
Out Door	-	-	-	-
Lactation stage	2	1	2	4
Clinical Infect	no	no	Staph Aureus	Staph Aureus
Sub Clinical	-	-	-	-
Treatment	-	-	Medicine	Vet & Medicine
Changes/ Prevention	Pre Spray Post Dip	Pre Spray Post Dip	Pre Spray Post Dip Cluster Dip	Pre Spray Post Dip Cluster Dip Add to Cull List



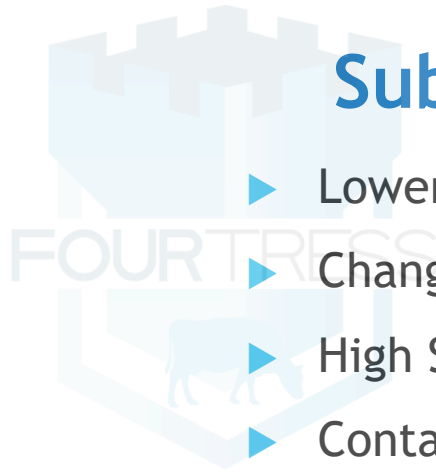
Identify the signs

Clinical

- ▶ Clots or flakes in milk
- ▶ Swollen or sensitive udder
- ▶ Under performing
- ▶ Changes in SCC

Sub Clinical

- ▶ Lower milk yield
- ▶ Change in milk solids
- ▶ High SCC
- ▶ Contagious





Clinical and Sub Clinical Mastitis

Bacteria Types: Identifying the bacteria type will help to isolate the source of the infection.

- Taking a sterile sample for testing will pin point the likely bacteria source, help reduce further infection and help put prevention measures in place.
- Straph aureus and Strep agalactiae are the most predominant contagious mastitis bacteria. They are spread by the human hands, machine liners, cleaning cloths and along with Strep uberis are the most common cause of mastitis.
- Strep dysgalactiae is both environmental and contagious. Contracted through damaged teat skin and damaged teat ends.
- Identify contributing factors to infection based on type of bacteria found in sample. Revise sanitation of parlour and equipment, source hygiene products to suit your dairy hygiene needs.

Facts:

- Straph aureus and Strep agalactiae are only spread during milking.
- Excellent hygiene during milking minimises spread of infection.
- Strep Uberis lives in cows environment.
- Strep dysgalactiae teat end damage.



Bacteria at a glance

Facts:

- Watch milk records for changes and identify problems early.
- A SCC of over 200,000 is an indicator.

	Contagious	Environmental
Bacteria	Staph aureus, Strep uberis, Strep agalactiae, Streptococcus dysgalactiae (Strep dysgalactiae) CNS (Coagulase negative Staphylococci) Corynebacterium bovis (C.bovis)	E.Coli Strep uberis Klebsiella Pseudomonas
Source of infection	Udder	Environment
When spread	During milking	Between milking During milking During the dry period
Type of mastitis seen	Predominantly subclinical Clinical cases from Staph aureus and Strep uberis	Mainly clinical Subclinical for Strep uberis
Effect on herd cell count	Raised	None unless Strep uberis problems



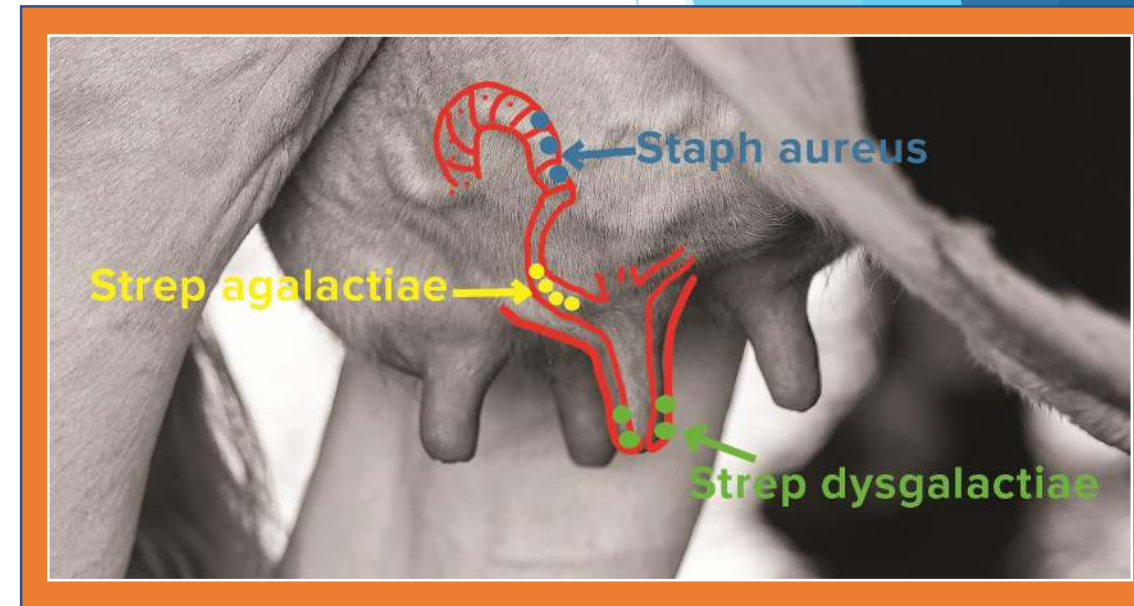
Bacteria and Key Sources

There are several types of Mastitis causing bacteria. The most common contagious type of mastitis are *Staph aureus*, *Strep agalactiae* and *Strep dysgalactiae*. Understanding the infections is key to prevention.

Staph aureus: Capable of living & reproducing in or outside of host cells - fluctuating & lower cell counts. Sources vary from poor teat hygiene, milking machine damage, pre & post milking and lactation stage.

Strep agalactiae: Stays in ducts, easily treated -consistently higher cell counts.

Strep dysgalactiae: Environmental & Contagious. Occurs from teat end damaged. Easily carried across the herd.





Bacteria and Key Sources

Environmental: Harmful bacteria attaches to the outer layer of the teat with many possible origins from faeces, mud, bedding, milking equipment to poor teat hygiene.

- ▶ The teat skin is designed with a thick, firm and resistant structure. But with no oil or sweat glands, no hair follicles natural moisture is a problem in this skin area causing it to dry out and become a harbour for infection.
- ▶ The hygiene process carried out during milking weighs heavily on this skin area and every effort before during and after milking should be taken to maximise the skin health and minimise possible infection.

Facts Strep uberis

- Both Clinical and Sub Clinical
- Contagious and Environmental
- Can be associated with bedding
- Can enter the udder during dry off period
- Already on cows teat prior to milking



Teat Hygiene & Care

Teat skin is the most important skin area of the cow.
Practicing the 3 V's rule helps find the importance balance.

- ▶ Cleaning and disinfecting the teat skin prior to milking is the first key step to infection control. A pre milking spray from the Fourtress range like Dairy LAC SA is an excellent disinfection and is also used post milking to alleviate and repair skin whilst combating bacteria.
- ▶ Protect Film is a ready to use post milking teat disinfectant which contains lactic acid & chlorhexidine. It contains high levels of emollients for teat conditioning and peppermint oil for added control. Its film forming ability creates a second skin layer on the teats thus defending them post milking against environmental bacteria.
- ▶ Barrier dips are another post milking treatment option offering full coverage on the teats and protection for hours post milking. DairyPro Ultra Dip SA offers the correct thickness and consistency in a full barrier dip.



Volume

Use the right amount of both
Pre spray and Post dip

15mls of spray per cow milking



Visual

Cover each teat
entirely & sufficiently

10mls of dip per cow milking



Viscosity

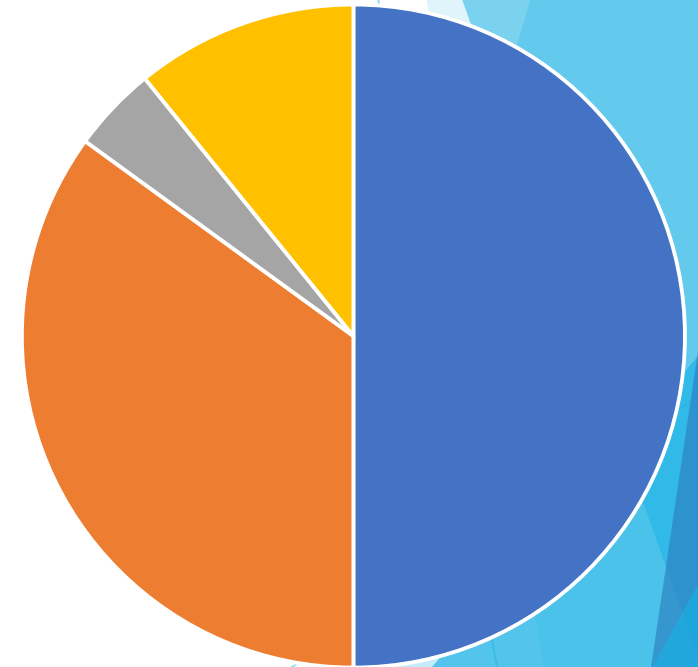
The correct thickness and
consistency of teat dip

Ensure the teat dip meets challenge



Mastitis Cost Averages £240 per cow per year

■ Production Losses £120 ■ Discarded Milk £84
■ Extra Labour £10 ■ Medicine Cost £26



Minimise contact = Stop the spread.

- ▶ The total cost of mastitis should be calculated from many sources: discarded milk, production losses, increase labour and treatment cost. Add in any veterinary cost, culling or deaths. Investment in a mastitis control plan is vital to cut losses and increase profits.
- ▶ Stopping the spread is priority. Remembering to minimise human touch between the cows at milking time.
- ▶ Wear clean disinfected gloves where required and dispose immediately after each use.
- ▶ Do not use the same cloth on each cow's teat ends. Disposable towel only, one use per cow and dispose.
- ▶ Liners should be disinfected between each cow to stop bacteria spread.
- ▶ Any defects on liners or errors should be addressed immediately to avoid teat end damage.



The Fourtress brand was borne bringing together manufacturing excellence, high performance quality products and a deep knowledge of the dairy hygiene sector.

The Fourtress Dairy Hygiene range can give you quick access to excellent hygiene results, helping to ensure the sustainability and security of your herd and of the milk you produce.

We can provide up to date cleaning products, technical knowledge, plus sound advice and support when you need it.

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