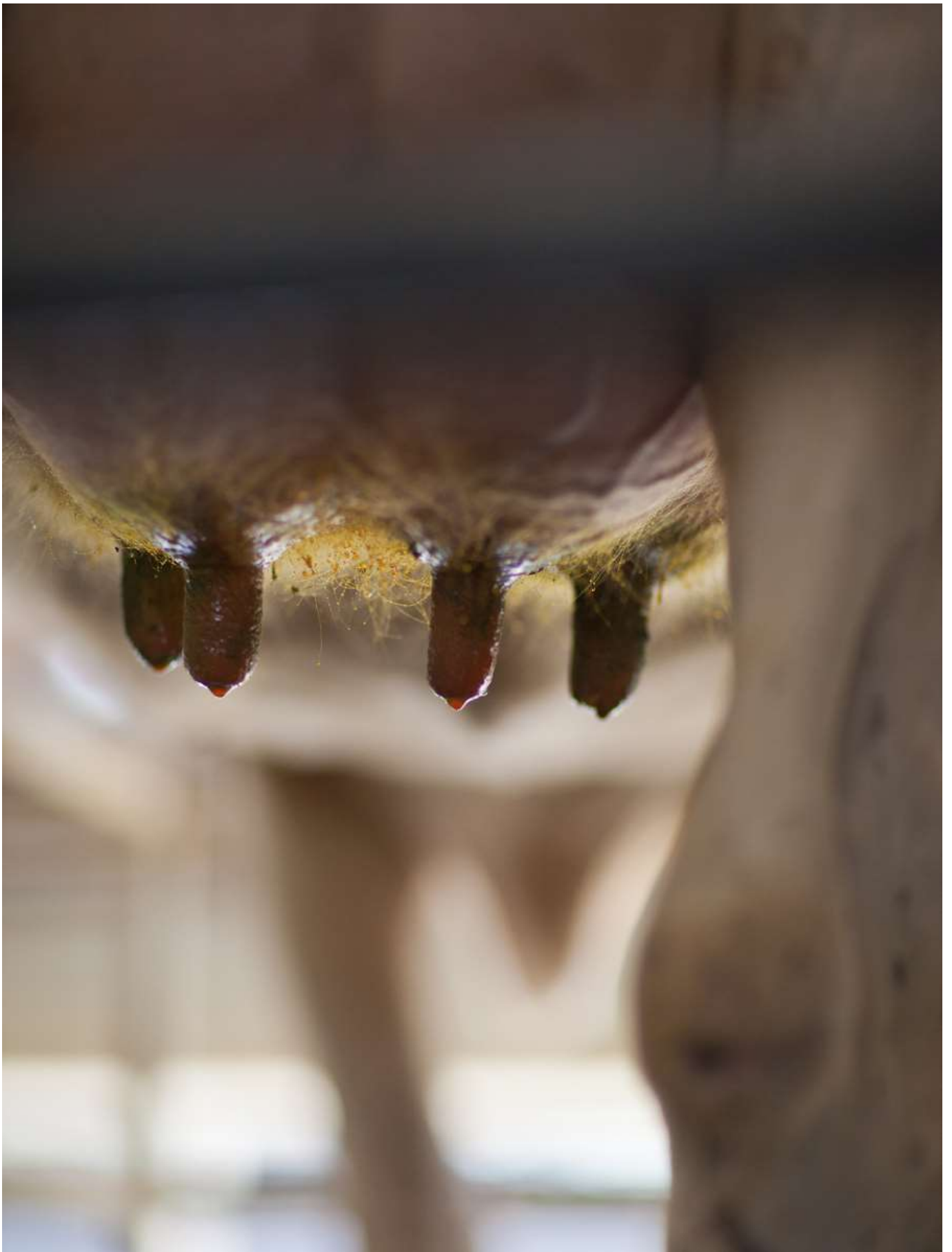


Do it yourself: Mastitis Treatment Protocols

 03 January 2017



Mastitis treatment protocols more than answer what antibiotic to use, how often to use it and at what volume. Mastitis control programs need a comprehensive plan, everything from cow identification, defining clinical cases, reviewing complete milking procedures, training milk technicians, testing milking equipment, sampling bulk milk, recording treatment, and following milk withholding times. Treatment protocols are a critical tool in mastitis monitoring and control, reducing residue risks, and ultimately, cow and herd health.

Key performance indicators (KPI) that dairy producers can use to monitor clinical mastitis can be found in UW-Extension Milk Quality Specialist Pamela Ruegg's 'A Practical Look at Monitoring Mastitis Control Programs.'

Developing a Milk Quality Plan

Successful mastitis control is dependent on effective detection, accurate diagnosis, evaluation of appropriate treatment options, and implementation of preventive practices that address herd specific risk factors associated with exposure to mastitis pathogens.

An effective surveillance system for mastitis includes the following elements:

- 1) Clear case definitions and effective mechanisms to detect both clinical and subclinical mastitis;
- 2) Recording systems that allow for timely evaluation of risk factors;
- 3) Feedback mechanisms that allow management personnel, milking technicians, and veterinarians to manage milk quality.

Monitoring Clinical Mastitis

Animal health recording systems should consist of both temporary cow-side records (often used for day-to-day decision making) and permanent records (such as cow cards or computerized records) that are used to summarise trends over time.

Those who work with small herds will generally need to review data found in paper based treatment records and will need to include data collected over longer time periods (3-4 month periods) in order to discern trends. For larger herds, computerised dairy management record systems can be configured to allow practitioners to rapidly review appropriate data.

Key performance indicators that are defined at the cow-level (occurrence of mastitis in one or more quarters of a cow) rather than the individual quarter are easier to record and may better reflect the important economic consequences of mastitis. Goals for KPI are derived from populations of herds and may need to be adjusted for individual herd circumstances.

Monitoring Subclinical Mastitis

It is not possible to control any subclinical disease without a clear understanding of the prevalence and a mechanism to monitor incidence. Prevalence of mastitis is a function of incidence (development of new subclinical cases) and duration. For some herds, the prevalence of subclinical mastitis may exceed goals even when relatively few new infections are occurring because of chronic infections caused by contagious pathogens. Alternatively, goals may be exceeded because of environmental mastitis problems that are characterised by high incidence of new infections of relatively short duration. The first step in monitoring subclinical mastitis is to ensure that somatic cell count (SCC) values are routinely obtained from all cows on a regular basis. Generally, all cows with SCC values >200,000 cells/ml are considered to have subclinical mastitis.

Common KPI for subclinical mastitis: 85% cows with SCC < 200,000 (prevalence) and < 5-8% of cows developing new subclinical mastitis infections per month (incidence).

Preventing mastitis and improving milk quality is a vitally important role that contributes to improved animal well-being, enhanced farm profitability and better assurances that food is being produced in a safe and sustainable way.

Source: University of Wisconsin (USA).

Research Themes

EuroDairy drives the engine of innovations on 4 main themes at dairy farms: animal care, biodiversity, resource efficiency and socio-economic resilience. Find more info on these dairy topics here!

[Biodiversity](#)

[Resource Efficiency](#)

[Socio-Economics](#)

[Animal Care](#)

[Interactive Innovation](#)



