Diagnosis and Management of Sub-clinical Mastitis in Cows

Diagnosis of subclinical mastitis can be made in a variety of ways including direct measurement of the somatic cell count (SCC) level or indirectly by performing a California Mastitis Test (CMT) on suspected quarters. Milk culture of suspected quarters or cows (composite samples) will identify the presence of mastitis pathogens but will not provide a measure of the degree of inflammation associated with the infection. Individual cow SCC will provide a determination of the level of infection within the herd. Bulk tank somatic cell counts (BTSCC) are performed routinely as a indication of milk quality. The prevalence of clinical mastitis in cows was determined by examination of changes in the udder, namely, redness, rise in temperature, swelling, hardness of udder, changes in milk colour, and reduction in milk quality and quantity.

Diagnostic Tests Used. Comparison of tests for the diagnosis of subclinical and clinical mastitis in cows. 4.2. Age-Wise Prevalence of Bovine Mastitis. The highest prevalence of SCM was recorded in the age group of 7–10 years followed by the group of cows with age greater than 10 years and the least was recorded in the age group of 3–6 years when tested with all three diagnostic tests. The diagnostic accuracy of conventional methods for the diagnosis of subclinical mastitis, such as the direct microscopic count (DMC) and electronic cell count (ECC) either used alone or in combination with bacteriological examinations, according to international standards, were compared with DNA determinations and a radial immunodiffusion test (MMT). Staphylococcal beta toxin inoculated into the teat canal facilitated studies on the sequence of events leading to elevated BSA levels and cellular counts in the udder. A pre-inflammatory leucocytosis, resulting from passage of small amounts of toxin into the teat cistern was shown to occur in this investigation. Incidence Rate of Clinical Mastitis (Cases per Cow at Risk). Mastitis in the first 30 days of Lactation. 50.00% 45.00% 40.00% 35.00% 30.00% 25.00% 20.00% 15.00% 10.00% 5.00% 0.00%. Farm-years in Ascending order of Clinical Mastitis Incidence. Research into Industry. …Prevention? Preventive Treatments. Pathogen, Cow, Farm, Management. Dry Cow Treatment: A Clinical Trial. • Target therapy towards a specific types of bacteria. – Gram negative. • RCT - using a targeted product. – Found a 50% reduction in clinical gram negative mastitis. Bacterial communities… Cow and management factors. • Previous Lactation • Drying Off • Early Dry period • Late Dry Period • Calving Period • Overall herd factors. Some ‘simple but effective’ …
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Abstract

A survey was conducted in phased manner to evaluate prevalence of sub-clinical mastitis, covering 236635 pooled milk samples, extending all the dairy societies 1910, in the milk shed areas with the help of California mastitis reagent test (CMT). To begin with the pooled herd milk samples were tested and then milk of all the cows of reacted herds were rescreened. The positive cows were supplemented in the first and second round of the first phase, with 10 grams of plain Tri sodium citrate for ten days. All reacted cows of first and second rounds of remaining four phases, were supplemented with 20 grams coated Tri sodium citrate for ten days. It was observed that coated Tri sodium citrate proved more effective. The incidence of sub clinical mastitis gradually came down from 16 to 8 percent, due to regular supplementation of coated Tri sodium citrate to all the reacted cows from first phase to fifth phase in a systematic manner.

Keywords

CMT, sub-clinical mastitis, tri sodium citrate.
specific types of bacteria. – Gram negative. • RCT - using a targeted product. – Found a 50% reduction in clinical gram negative mastitis. Bacterial communities… Cow and management factors. • Previous Lactation • Drying Off • Early Dry period • Late Dry Period • Calving Period • Overall herd factors. Some ‘simple but effective’ …