

Revisiting culture-based mastitis treatments

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Culture-based treatment of grade 1 and 2 clinical mastitis (the cow is not systemically ill) refers to collecting a milk sample for culture at the time abnormal milk is detected, then waiting to treat the cow until the culture result is received. Why is it a good strategy to delay treatment for 24-48 hours while the culture is being performed? It allows us to know what organism the quarter is infected with in order to make a wise treatment decision. In fact, using this system results in treating far fewer mastitis cases (often treatment is unnecessary or ineffective in 50% of mastitis cases), meaning you save money on drugs and discarded milk, and you reduce your risk of a residue violation. Other advantages of culture-based treatment include:

- Better cure rates for treatable mastitis infections meaning more quarters will return to a low SCC. This is due to using an appropriate antibiotic, frequency of administration, and duration of therapy for the particular organism causing the infection. Your veterinarian is a great resource for treatment recommendations and withdrawal times.
- Identification of mastitis cases caused by chronic, incurable organisms, so you can make a decision about excluding these high SCC quarters from your bulk tank.
- Diagnosis of cows infected with contagious mastitis pathogens, so that they can be treated, segregated, and/or culled to prevent the spread to other cows in your herd. Such pathogens may include Prototheca, Staphylococcus aureus, Mycoplasma, and Streptococcus agalactiae.

Note that all of the points above contribute to lowering your bulk tank SCC. Instructions for aseptic collection of milk samples can be found at this web address:

<https://milkquality.wisc.edu/how-to-collect-an-aseptic-milk-sample/>