



HIGH CELL COUNT COWS

WHAT ARE THE OPTIONS?

When Bulk Milk Cell Counts (BMCCs) are elevated there is plenty of incentive to reduce them – but what are the options?

Cows with subclinical mastitis infections have cell counts above 250,000 cells/ml, but no visible changes in the milk.

Identifying the infected cows

- Herd Testing provides Individual Cow Cell Counts (ICCCs) regularly during lactation. Cows with any cell count above 250,000 are likely to be infected.
- The number of cells each cow is contributing to the vat can be calculated from her ICCC and litres produced (ICCC x litres x 1000). To explore options for reducing BMCCs, a downloaded file of Herd Test data can be exported to a spreadsheet. The cows can then be ranked in order of the number of cells they contribute to the BMCC. The effect of removing particular cows from the vat can be calculated. This enables you to pick individual cows that could be dried-off early, or potential candidates for culling (see below on criteria for culling). Diverting milk from these cows to feed calves for sale is also an option for some farms.
- Rapid Mastitis Test and hand-held conductivity meters are time-consuming alternatives that are not as accurate in picking infected cows or choosing cows to exclude from the vat.

HOW TO REMOVE CELLS FROM THE VAT (AND INFECTIONS FROM COWS) MOST EFFECTIVELY.

Treatment during lactation is NOT generally recommended. It has a relatively low chance of success and is expensive (milk discarded and antibiotic cost).

Culling is a very expensive option unless the cows have chronic infections (high cell counts in two lactations with Dry Cow Treatment in-between) or have other reasons to leave the herd.

Antibiotic Dry Cow Treatment at drying-off is the best approach.

Whatever the approach to removing infections, it is essential to minimise spread to clean cows by hygiene at milking and 100 per cent coverage of teats with teat disinfectant.

Treatment during lactation – usually not recommended

- Antibiotic treatment for subclinical infections during lactation usually has a low chance of success. It is just not possible to keep enough antibiotic in the udder for long enough. The costs in antibiotic and discarded milk are usually too high for the likely benefits, and there is increased risk of antibiotic contamination.
- The current recommendations are NOT to attempt treatment of subclinical cows (cell counts above 250,000 cells/mL, but no visible changes in the milk) except in specific circumstances. For example, herds where the majority of infections are due to *Strep agalactiae* and possibly *Strep uberis* may see economic benefits from treatment during lactation. This should be assessed, based on cultures and economic analysis, in conjunction with your vet.

Antibiotic Dry Cow Treatment at drying-off

- Most cows will cure infections over the dry period if they have sufficient time (minimum of 6 weeks) and are treated with Antibiotic Dry Cow Treatment. Note, some cows are less likely to respond – especially older cows with high cell counts that have been present for two lactations.
- Early drying-off of high cell count cows that are in later lactation may be a good approach to decreasing Bulk Milk Cell Counts.
- After wet, humid conditions there are likely to be more infected quarters in your herd than usual and you should consider a blanket approach to Antibiotic Dry Cow Treatment (all quarters of all cows at drying off).
- It is likely cows will be at higher risk of new infections during the dry period and the use of a Teat Sealant to reduce this risk should be seriously considered.
- Talk with your vet to set up your drying-off plan and process.

Culling – a final step

- A small number of high cell count cows can have a significant effect on Bulk Milk Cell Count level and milk quality payments. Chronically infected cows are likely to be a source of bacteria for other cows. Culling cows with chronic infections helps protect the healthy, young cows which are the future of the herd.
- Although culling is important in mastitis control, it is an expensive option. Farm cell count problems are seldom solved by culling alone. Failure to prevent new infections will mean that other cows quickly take their place at the top of the high cell count list.
- Candidates for culling are cows that have:
 - 3 clinical cases of mastitis in the one lactation
 - chronic infection – a cell count above 250,000 in two lactations with Dry Cow Treatment in-between.