

## Cell counts and Mastitis

Mastitis is one of the biggest problems facing UK dairy farmers. Statistics show, that for a conventional farm an average case of mastitis costs £250-£300 (Dairy Co). This includes treatment costs, dumping milk during treatment, reduced yield and milk quality, and potential cost of culling. On an organic farm, the cost would be higher, due to the higher milk price and cost of production, and longer milk withdrawal times.

A high somatic cell count (SCC) also holds a cost to farmers, varying from farm to farm and on the structure of the milk contract. A high bulk SCC can be an indication of sub-clinical mastitis. It can cause financial penalties, reduced butter fat and protein content, reduced yields and an increased culling rate, and with replacements currently at a premium, replacing chronically infected cows has an increased cost implication.

When considering bulk milk, the target for SCC should be less than <150,000/ml, and bactoscan at less than <20,000/ml. When the SCC level is equal to or greater than =>200,000 and /or bactoscan equal to or greater than =>50,000/ml veterinary advice should be sought. For clinical mastitis cases, the target should be to keep under 25-30 cases per 100 cows per year, when the figure reached 35-40 cases per 100 cows per year, vet advice should be sought. Organic milk processors tolerate a higher SCC, which can lead to the overall herd average creeping up, and losses due to sub clinical cases will be greater (Hovi, 2004).

### Major Pathogens

#### Environmental:

- Escherichia coli
- Streptococcus uberis

#### Contagious:

- Staphylococcus aureus
- Streptococcus uberis
- Streptococcus agalactiae and dysgalactiae

Traditionally, contagious pathogens were the biggest cause of mastitis, and especially high SCC. In recent years, however, due to improved parlour routine and hygiene, the percentage of cases caused by these pathogens has decreased. The major cause of both clinical mastitis and high SCC is now Strobotococcus uberis, which is primarily an environmental pathogen but can also be contagious in the parlour.

Mastitis control should be an ongoing exercise on your farms. The control methods that you use on your farm should be recorded in your health plan, as agreed with your veterinary surgeon. The treatments must be recorded in your veterinary treatments record, and withdrawal periods recorded and adhered to.

Veterinary medicinal products must be authorised in accordance with current European and UK legislation, and should only be used as permitted under such legislation. Please check with your control body.

### Helpful Hints

- ❖ Make sure cows stand up, after milking, by offering fresh feed, so that the teat duct can close properly, before she lies down.
- ❖ Attention to detail for the parlour routine and keeping the housing well ventilated, clean and dry is essential.

### 9 point control plan

1. Identify your high SCC cows
2. Discard milk from high SCC cows
3. Identify and treat mastitis problem
4. Consider culling problem cows
5. Dry cow management with teat sealants for healthy cows
6. Practice dry cow antibiotic therapy on high SCC cows
7. Improve parlour hygiene, order and routine
8. Improve housing hygiene and cow nutrition
9. Test your parlour regularly

**Sources** Contributions from Guy Tomlinson of Daleside Veterinary Group, Wrexham  
Hovi (2004) Approaches to mastitis control in well-established organic dairy herds in England and Wales. PhD Thesis. University of Reading

## Organic Centre Wales • Factsheet G1 - May 2011

Published by Organic Centre Wales, Institute of Biological, Environmental & Rural Sciences (IBERS),  
Aberystwyth University, Ceredigion, SY23 3EB. Tel. 01970 622248.

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