18 Check udders each day for a week

Udder infections of dry cows are most likely to occur immediately following drying-off and around calving. Cows are susceptible to new infections particularly in the first week of the dry period before the teat plugs have formed and sealed the teat ends (Thomas et al 1972, Woolford et al 1998).

Infections in the drying-off period must be detected and treated so that they do not persist and create problems after calving. Cows should be closely observed during the last week of their lactation and in the first week of their dry period.

18.1 Look at udders of all cows for swollen quarters (larger than other quarters on the same cow), while cows are in the paddock.

&

18.2 Check swollen quarters manually.

Confidence – Moderate

The recommendation that farmers examine udders visually rather than manually may result in some infections being missed, but this is likely to be outweighed by the practical advantages.

Research priority – Low

The udders of dry cows should be inspected as a routine part of checking the cows because clinical cases can occur during the dry period and quarters that are not treated may have lower production in the next season.

Visual observation of udder size and symmetry is all that is required, and often all that is possible. It is however necessary to manually handle the udders of cows suspected to be infected. Secretions stripped from the suspect quarter after drying-off may differ from normal milk (thicker and more stringy) and therefore more difficult to assess. If there is any doubt about the status of a cow, she should be treated as a clinical case.

Technote 4.1 describes how to check swollen quarters.

The 'hands off' approach in the early dry period recommended by Countdown Downunder contrasts with recommendations of New Zealand's Seasonal Approach to Mastitis Management (SAMM plan). The SAMM plan advises manual checks at weekly intervals for the first month of the dry period (Reidy 1999). However, moving cows through the milking shed or handling their udders at this time may stimulate milk ejection and break the teat seal. This is more of an issue for Australian herds that tend to be dried-off at higher milk yields than their New Zealand counterparts.

Technote 4 describes treatment of lactating cows in detail.

18.3 Treat clinical quarters by stripping out completely and using a full course of lactation antibiotic.

Cows that develop clinical mastitis within a week of drying-off are treated in the same way as lactating cows.

Additional considerations when treating these cows are:

- it is important to not handle or strip the unaffected quarters so that the teat seal remains intact;
- high doses of oxytocin should be avoided in late pregnancy; and
- injectable antibiotics or intramammary products for lactating cows can be used even if the quarter was previously infused with Dry Cow Treatment.

18.4 Treat again with Dry Cow Treatment and amend record of date for Minimum Dry Period when the case is resolved.

The recommendation to re-treat with Dry Cow Treatment only applies to cows that become clinical at drying-off – before the mammary gland starts to involute. In these cases, it is appropriate, after giving a course of treatment to the clinical quarter, to re-administer Dry Cow Treatment to that quarter.

If clinical mastitis occurs in multiple quarters at drying-off, re-treatment with dry cow antibiotic may be inappropriate due to the risk of antibiotic residues.

Cases occurring at any other time during the dry period should not be retreated with Dry Cow Treatment as:

Technote 17.4 explains why dry cow antibiotics should only be used when the cow is still producing milk.

- there is no guarantee of normal dispersion of antibiotic through the mammary gland once a significant number of tissues cells have collapsed; and
- cows may calve before the Minimum Dry Period has elapsed.

Key papers

Reidy P. Problems can follow cost-cutting. Dairy Exporter 1999; May: 58-59.

Thomas CL, Neave FK, Dodd FH, Higgs TM. The susceptibility of milked and unmilked udder quarters to intramammary infection. J Dairy Res 1972;39:113-131.

Woolford MW, Williamson JH, Day AM, Copeman PJA. The prophylactic effect of a teat sealer on bovine mastitis during the dry period and the following lactation. NZ Vet J 1998;46:12-19.