

Administer Dry Cow Treatment as recommended

It is easy to introduce bacteria into the teat during Dry Cow Treatment if the teat end is not properly disinfected or if bacteria enter the teat canal before it has sealed. Infection with environmental bacteria can cause severe mastitis.

17.1 Plan for the time and effort that treating cows with Dry Cow Treatment takes. Administration of Dry Cow Treatment is a critical job. Ensure that responsible operators are trained adequately in the procedure and supervised well.

It is essential for farmers to plan the time and labour required to administer Dry Cow Treatment to their herd. The Countdown Downunder Farm Guidelines for Mastitis Control state that one person can only handle about 20 cows per hour to do the job well. This estimate is based on observation of a small number of good operators, but is not likely to be too much in error. It allows three minutes per cow in which each of the following needs to be done:

- restrain the cow;
- disinfect and treat all four quarters;
- teat dip each quarter;
- mark the cow;
- record the treatment details; and
- move the cow to an appropriate location.

In fact, it is preferable for advisers to suggest that two operators are available to restrain and handle the cows, especially if the cows are not used to their teats touched, as the job involves some occupational health and safety risks.

When seasonal herds change from selective to blanket Dry Cow Treatment they often fail to 'recalibrate' to the additional time required to administer Dry Cow Treatments. As a result, tired operators often rush the job or there is last-minute recruitment of less experienced help.

Some advisers offer to assist with the administration of Dry Cow Treatments in seasonal herds, especially those with large numbers of cows.

To avoid errors and injury at the time of Dry Cow Treatment ...
"When you wish you weren't doing the job – stop."

• Advisers are encourage to copy and distribute Fact Sheet B of the *Countdown Downunder Farm Guidelines for Mastitis Control* to their clients.

• It is essential for advisers to ensure the teat end preparation and intramammary infusion technique is satisfactory. A physical demonstration to staff prior to drying-off is often worthwhile.

17.2 Treat all cows if using Blanket Dry Cow Treatment. If using Selective Dry Cow Treatment, treat all cows with any ICCC above 250,000 cells/mL during the lactation, and any cow which has had a clinical case during the lactation.

Technote 14 describes how to choose an appropriate dry cow strategy.

17.3 Do not use Dry Cow Treatment on cows that are to be culled.

Technote 3.1 describes withholding periods following Dry Cow Treatments. Technote 4.10 discusses issues about withholding periods.

17.4 Use Dry Cow Treatment only at the cow's last milking for the current lactation.

Technote 3.1 describes milk suitability following Dry Cow Treatments.

Technote 4.10 discusses issues about withholding periods.

Dry Cow Treatments are only registered for use immediately after the last milking of a lactation.

There are two important reasons for restricting use of Dry Cow Treatment to the cow's last milking for the current lactation – one relating to distribution of the dry-cow antibiotic through the udder and the other relating to delayed sealing of the teat canal.

It is not appropriate to administer Dry Cow Treatment to individual quarters that were dried off during lactation (where cows have been milked as '3-teaters') or when cows have not been milked regularly beforehand. This is because there is no guarantee of normal dispersion, absorption or removal of antibiotics in quarters in which significant number of tissue cells have already collapsed (for example cows producing less than 5 L per day) at the beginning of the repair and rejuvenation process. Some instances of Dry Cow Treatment antibiotic residue in milk following calving, even after expiry of the Minimum Dry Period and the withholding period, have occurred when Dry Cow Treatment was administered to involuted quarters.

If farmers give Dry Cow Treatment to cows that have not been milked for a few days, the intramammary nozzle will scrape the surface of the teat canal – disrupting formation of the keratin plug and predisposing the quarter to mastitis.

17.5 Administer the treatments as recommended ensuring the teat ends are sanitised properly.

Technote 4.5 describes administration of intramammary preparations.

17.6 Treat all quarters of cows to receive Dry Cow Treatment (except quarters that have been dried off for some time in cows milked as ‘three teaters’).

Technote 3.1 lists common reasons for antibiotic violations associated with Dry Cow Treatment.

Technote 4.13 discusses quarters that have been dried off.

17.7 Dip teats with freshly made up teat disinfectant after treatment.

Technote 7 discusses teat disinfection.

17.8 Mark the udder (e.g. with a spray paint) so that cows that have received Dry Cow Treatment can be easily recognised.

Technote 4.8 gives examples of methods of marking treated cows.

It is worthwhile for farmers to use a distinctive marking for cows given Dry Cow Treatment.

17.9 Record cow ID, date and product details of all Dry Cow Treatments.

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17.10 Don't leave cows in laneways or yards immediately after Dry Cow Treatment.

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17.11 Put the cows in a dry, clean paddock (not heavily soiled with manure, no bare ground, no exposure to dairy effluent) for 3-4 days after Dry Cow Treatment.

Technote 16.5 and 16.6 discuss the importance of a clean, dry environment at drying-off.

17.12 To minimise milk and antibiotic leakage, do not walk cows a long distance for 3-4 days after Dry Cow Treatment is administered.

Leakage of milk and antibiotic after Dry Cow Treatment is minimised if the movement of the cows is restricted for the first few days after drying-off.

When blue stain (used in dry cow antibiotic formulations in Australia) is observed on the hindlegs, veterinarians generally prefer not to treat the cows again as this may disrupt seal formation in the teat canal. Despite this physical evidence of leakage it is likely that a lot of the product has already diffused through the udder tissue.