

DRY COW TREATMENT MAY 2013

- **Plan your herds dry cow treatment now**
- **You need good advice to choose the best drug for your herd**
- **Drying off should be planned well before time**
- **You need to know the appropriate withholding periods for the product used**

Aims of Dry Cow Treatment

There are three reasons for using dry cow antibiotic treatment

1. Treat existing infections that have not cured during lactation

Treatment at drying off results in a much higher cure rate than treatment during lactation because the antibiotic persists in the udder for a much longer period than normal, resulting in an increased chance of curing deeply imbedded infections.

2. Reduce the number of new infections that may occur during the dry period

Dry cow treatment also protects the udder from new infections in the dry period. This occurs both directly through antibiotic presence in the udder, and indirectly by promoting the formation of the natural keratin plug which seals the teat canal following drying off. Dry cow antibiotic can play a role in significantly reducing these infections.

Dry cow antibiotic does not protect against some environmental bacteria that may be introduced into the udder if administration is not done very cleanly. These bacteria may cause severe clinical mastitis.

3. Reduce the number of infections in the calving period

Most farms will experience an increase in clinical mastitis during the calving period. If your herd experiences more than 5% (5 cases per 100 cows calved) then you should look at control strategies to reduce this. One of the most effective strategies is blanket dry cow therapy and the dry cow product you use.

If a cow has clinical case of mastitis in the first 14 days of her lactation there is a very high chance that she has picked the infection up at calving.

We have good evidence that **Cepravin DC** and **Teatseal** are the most effective treatments for preventing mastitis at calving. **Teatseal** does not contain antibiotic and is particularly effective at preventing new infections during the dry period and at calving. **Teatseal** on its own does not cure existing infections.

Teatseal can be used in combination with a dry cow antibiotic in any cows regardless of their cell count or history of clinical mastitis. This increases the cost and more labor is involved but clinical mastitis cases are significantly reduced during the calving period.

Drying off procedure

The aim of drying off is to shut down milk secretion and seal the milk canal as rapidly as possible. Drying cows off abruptly encourages the formation of a keratin plug in the milk canal that plays a major role in preventing infections during the dry period. The following steps will help reduce the risk of infection:

- Dry off cows as soon as their production reaches 5 litres or less per day
- Cows producing less than **12 litres** daily can be dried off abruptly with no reduction in feed intake.
- Cows producing in excess of 12 litres per day should be managed so that production reduces to below **12 litres** per day at drying off (these cows may need to be run as a separate mob prior to drying off). Concentrate feeding could be ceased 1 week prior to drying off, paddock feed should be reduced three days prior to drying off, and hay should be fed instead at a maintenance level (7 to 8 kg per cow per day).
- Do not skip days and preferably don't skip milkings prior to drying off.
- Do not leave cows in laneways or yards immediately after drying off.
- Put cows in a dry, clean paddock for 3 to 4 days after drying off.
- Continue the "maintenance only" diet for a further 3 to 4 days for cows that were producing 12 or more litres per day in the week before drying off.
- After the last milking milk out as usual, administer Dry Cow Treatment, and cover the whole surface of the teat in freshly mixed teat disinfectant.

Dry Cow administration

Handy hint!

Warm up the dry cow product the night before by leaving it inside the house (ie. near the heater). Do not warm up the dry cow product by placing the tubes in hot water, as this will increase the chance of introducing infection.

It is important when treating cows with dry cow antibiotic that it is done carefully to avoid introducing bacteria into the udder during administration. When the job is done properly one person can only handle about 20 cows per hour. Because it is so time consuming, cows are often best dried off in batches.

The following guidelines are important when administering dry cow treatment (DCT):

- Use DCT only at the cow's last milking for the current lactation. Cows should be milked out normally prior to infusing DCT.
- Do not dry off too many cows at one time. A realistic goal for one person doing the job well is to handle about 20 cows per hour.
- Ideally there should be two people to administer DCT. A tail jack will help in some cows.
- Hands should be washed thoroughly and dried prior to antibiotic infusion. The use of disposable gloves is strongly recommended.
- Administer the antibiotic only after ensuring the teat ends are sanitised properly. The teat end should be scrubbed with a cotton ball and alcohol (e.g. 7 parts metho to 3 parts boiled and cooled water) for a minimum of 10 seconds.

- Treat all four quarters of cows that are to receive DCT, the only exception being "three titters" which may have little or no milk in one quarter.
- If you are using **Teatseal** in combination with an antibiotic the **Teatseal** is given after the antibiotic.
- Dip or spray teats with freshly made up teat disinfectant after treatment.
- Mark the udder with spray paint following treatment so that these cows can be easily recognised.
- Record cow ID, date and product details of all Dry Cow Treatments. Don't leave cows in laneways or yards immediately after treatment. Put the cows in a clean dry paddock for 3 to 4 days after drying off.
- Do not walk cows long distances for 3 to 4 days after DCT is administered as this may cause antibiotic to leak from the udder.

Follow up care

Cows should be checked daily in the paddock for a week following drying off. Look for any swollen quarters (ie. any quarters that are larger than other quarters on the same cow). It is best to avoid bringing cows back near the dairy as they may start running milk, however any cows with visibly swollen quarters need to be brought in and checked manually. Suspect quarters should be checked for heat and pain, and stripped to assess for infection.

Cows that develop mastitis at this stage should be treated as you would a lactating cow, by stripping twice daily and infusing lactating cow antibiotic. In severe cases cows may require injectable antibiotic as well. Following the course of treatment, cows need to be re-treated with Dry Cow Treatment and the record of date for Minimum Dry Period must be amended.

Guide to withholding periods of Dry Cow Treatment

Product	Minimum Dry Period (MDP) Days	Meat Withholding	Milk Withholding if calving after MDP Days	Milk Withholding if calving <i>before</i> MDP Days	Calf Meat In cows that calve before the MDP	
					For calves that suckle – WHP after the calf's last suckle	For calves that do not suckle – WHP after date of dam's DCT
Cepravin Dry Cow	49	21	4 (8 milkings)	49+4 =53 Days after Drying-off	21	21
Juraclox	35	30	4	35	30	30
Teatseal[#]	0	0	4*	4*	0	0

* Milk or colostrum from freshly calved cows, whether they receive dry cow treatment or not, should not be used for human consumption for 4 days or 8 milkings after calving (at least 10 milkings in induced cows).

If Teatseal is used in combination with an antibiotic then the withholding period for the antibiotic applies