

Insights on Dry Cow Treatment (DCT) on Dairy Cows

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Due to concerns about possible emergence of antibiotic resistant organisms and antimicrobial residues in the food chain, the selective use of dry cow therapy (SDCT) has received more attention recently opposed to the blanket therapy or prophylactic treatment applied to all cows as a method to reduce the number of new infections on the next lactation.

Although promising, SDCT it is not a practice to be adopted without a lot of thought, research and should be discussed with your veterinarian to be implemented with success.

Some of the criteria for select which HERDS are eligible to apply this management include:

1. Look at your bulk tank somatic cell count (SCC) – should be less than 250,000cell/mL.
2. Do you have your personnel capable of identify, treat, and monitor those eligible cows?
3. Do you have a problem with contagious pathogens (*S.aureus* for instance)? Mastitis caused by contagious organisms should be under control.
4. Are you applying teat sealant in all your cows at dry-off? Answer should be yes.

If your herd is eligible, the next question will be WHICH COWS you should not be treating with antibiotics at dry-off.

To answer the question, you can opt for one of these two approaches/options.

1. **Are you part of the DHIA**, and so receiving records and able to monitor individual cow somatic cell count monthly and monitor mastitis clinical cases?
COWS are eligible to receive only teat sealant if:
 - a. during the current lactation, SCC for all tests is less than 200,000cells/mL
 - b. during the current lactation, cow presented maximum of 2 clinical mastitis cases.
 - c. during the last 14 days, cow did NOT have any clinical mastitis case.
2. **You have an on-farm culture system implemented in your farm.**
 - a. In this case, milk should be aseptically collected 2 days prior to dry off and culture results should be analyzed (cow's SCC and clinical mastitis records can also be part of the decision).

Once you decided which cows should be receiving only teat sealant and no antibiotics, attention should be placed on how to proceed on applying this product.

Even in case you are not implementing SDCT here are some recommendations for producers that are important to be followed.

Before you start the treatment pay attention to:

Do not use DCT on cows that are going to be culled soon, the concentration of antibiotic on those products are higher than those used during lactation thus, follow the recommended withdrawal time.

Make sure this is the last cow's milking for the current lactation – for the same reason above, we do not want treated milk to be directed to the bulk tank.

Once you have the correct cow to be treated, how to proceed?

- Milk the udder out completely.
- Attention to teat cleanliness when applying the product – make sure to pre dip.
- Apply an effective teat dip and allow to dry. Remove excess dip with a clean paper towel if necessary.
- Disinfect each teat-end by scrubbing for a few seconds with a separate 70% alcohol-soaked cotton ball. Start with the teats on the far side of the udder, and work towards the near side.
- Infuse each quarter with a single-dose syringe of a recommended dry cow treatment. Use the partial insertion method of administration into the teat streak canal. Look at the recommendations for each product regarding massaging the gland or not.
- Dip all teats with an effective post-dip immediately following treatment and ensure a complete teat coverage.
- Record cow ID, date and product that was used.

To monitor the progress of your program it is critical to maintain good clinical records. Information on **how** many cows is treated more than once, **how** effective treatment is (both in terms of clinical signs and somatic cell count), **when** – the stage of lactation at which cows are being treated, all this information is important to keep it. Working closely with your veterinarian on these topics and on proper personnel training, will enhance the chances of success on the implementation and maintenance of this management practice.