

# The Bimeda Guide to Selective Dry Cow Therapy



# What Is Selective Dry Cow Therapy And Why Do We Need It?

**Selective Dry Cow Therapy (SDCT)** refers to the practice of selectively deciding which cows will and will not receive antibiotic therapy at the time of drying off.

This is based on factors such as the herd and individual SCC, cases of clinical mastitis and the types of mastitis-causing bacteria present on the farm.

Most herds in the UK & Ireland approach drying off uniformly, or with a 'blanket approach', where all animals receive antibiotic therapy at drying off.

SDCT attempts to identify the animals which will benefit from antibiotic therapy and to treat only them.

In addition to identifying which animals do and do not require antibiotic therapy, we also need to determine which is the most appropriate antibiotic to use.

SDCT is increasingly important as farmers come under pressure to reduce their overall antibiotic usage.



# Understanding The Role Of Teat Sealant

## What Is A Teat Sealant?

Teat sealant is a paste which is contained in a syringe and is inserted in to the teat canal at the time of drying off. Its function is to seal the teat canal. It does not contain antibiotic.

## What Does The Teat Sealant Do?

After drying off, a keratin plug should naturally form and block the entry to the teat canal. This provides a physical barrier and prevents infectious bacteria obtaining entry to the udder during the dry period.

Due to the intensive nature of farming high yielding cows, the keratin plug often takes a long time to form, or may not form at all. This leaves the teat open to bacteria and therefore leaves the cow open to infection during the dry period.

The intramammary teat sealant mimics the keratin plug and forms a physical barrier to bacteria.

	<b>Antibiotic Dry Cow Tube</b>	<b>Teat Sealant</b>
<b>Purpose</b>	To treat existing mastitis	To prevent new infections during the dry period
<b>Contains antibiotic?</b>	Yes	No
<b>Does every cow need it?</b>	No - only those who have mastitis	Yes - vital to prevent new infections
<b>Is there a milk withdrawal?</b>	Yes	No
<b>Impact on SCC</b>	<ul style="list-style-type: none"><li>• Where infection exists it will reduce SCC</li><li>• If used preventatively it will have no effect on SCC</li></ul>	No effect

# The Use Of A Teat Sealant Is Vital For Effective Selective Dry Cow Therapy

## Why Seal?

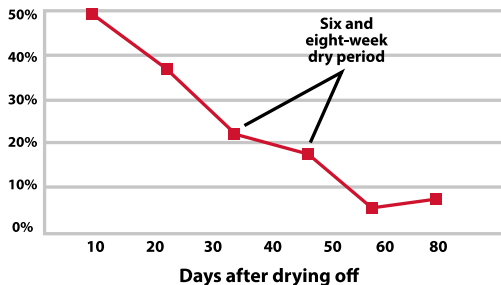
- ✓ The udder is at risk during dry cow period
- ✓ Provides a physical barrier against infection
- ✓ Reduces infections during the dry cow period
- ✓ Reduces infections in subsequent lactations

## When Does The Teat Canal Close?

One study revealed that at 6 weeks after drying off 21% of cow's teat canals were still open<sup>1</sup>.

Open teat canals are a huge risk factor for environmental mastitis.

**New Zealand Study<sup>1</sup>**  
% 'open teats' after dry off



Another study of high yielding dairy cows found that 50% of teats remain open in the first week of the dry period. At 6 weeks after drying off 23.4% of teats remained open<sup>2</sup>.

As we know cows with open teats are at very high risk of mastitis - this is why all cows should be sealed at drying off.

# Criteria For Selective Dry Cow Therapy

Requirements will vary from herd to herd. The below is only intended as a guide and should not be implemented without seeking advice from a vet.

## Herd Level Requirements

It may be possible to implement SDCT if your herd meets the following criteria:

- ✓ Herd SCC <200,000 cells/ml
- ✓ Individual cell count data
- ✓ Low incidence of mastitis

## Individual Requirements

If SDCT is appropriate for your herd you must then determine how to decide which animals require antibiotics and which do not. The following may be applicable:

- ✓ SCC <150,000 cells/ml for 3 consecutive tests in the approach to drying off.
- ✓ No clinical cases of mastitis in the previous lactation.

## Exceptions

The approach is dependent on which pathogens are present on the farm and your vet may advise blanket dry cow therapy regardless of the parameters above. As a result you should always include your vet in the decision to implement new management approaches.

It is also possible that the amount of data you have available will influence whether it will be feasible to implement SDCT.

# How To Administer Boviseal Teat Sealant

The below is intended as a guide for reference. Before sealing for the first time, particularly when antibiotics are not used, you should seek the advice of your vet who can give you a practical demonstration of correct application.

## Step 1

**Review the quarter for any signs of mastitis, including:**

- Redness
- Swelling
- Heat
- Hardness
- Pain
- Pus
- Blood
- Clots

If any of the above are observed at dry off then seek veterinary advice for the treatment of mastitis

## Step 2

**Thorough Disinfection:**

- The product comes with disinfecting wipes or you can use cotton wool with surgical spirit.
- Always wear new, clean gloves.
- Start with the teats furthest away from you.
- Continue until the wipes come away clean.

## Step 3

**Antibiotic Intramammary Tubes:** If antibiotic intramammary tubes are used then administer one tube per quarter and repeat the disinfection process. Infuse the teats nearest to you first.

## Step 4

- Starting with the teats nearest to you, infuse Boviseal into the teat canal.
- Firmly grip/pinch the top of the teat where it joins the udder.
- Slowly infuse one tube of Boviseal in to the teat.
- Use one full syringe per teat.
- Do not massage

## Step 5

### Disinfection:

Apply a post milking teat disinfectant to cover the entire teat.

## Step 6

### After Administration:

Allow treated animals to stand for 30 mins following administration and monitor closely.

## Correct Technique Is Critical To Success

If poor application or disinfection technique is used then it is possible to introduce bacteria in to the teat canal which can cause mastitis.



**Step 2 -**  
Thorough disinfection



**Step 4 -**  
Infusing Boviseal



**Step 5 -**  
Disinfect each teat

# Why Use Boviseal?

With over four decades of experience in mastitis prevention, we are able to offer a proven, quality product which:

- ✓ Seals out new infection
- ✓ Mimics the cow's own first line of defence - the keratin plug
- ✓ Is proven to reduce mastitis in the first 100 days post calving
- ✓ Can be used in conjunction with intramammary antibiotics or on its own for selective dry cow therapy.

## Advice And Video Support On How To Administer Boviseal:

<https://www.boviseal.co.uk/how-to-administer-boviseal>

Visit <https://www.boviseal.co.uk/> for further information

## Use Medicines Responsibly. [Noah.co.uk/responsible](http://Noah.co.uk/responsible)

Boviseal contains bismuth subnitrate 2.6g/syringe.

Legal category: POM-V.

See packaging for safety information.

For full product details including contra-indications see the SPC which can be found on the VMD website.

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### References & Footnotes:

1. Green MJ et al, Cow, farm and management factors during the dry period that determine the rate of clinical mastitis after calving.

Journal of dairy science 90. 3764-3776.

2. Dingwell, R andy; Leslie, Ken; Timms, Leo L.; Schukken, Ynte; and Sargent, Jan (2004) "Association of Cow and Quarter Level Factors at Dry Off and New Intramammary Infections in the Dry Period," Animal Industry Report: AS 650, ASL R1912.

Available at: [http://lib.dr.iastate.edu/ans\\_air/vol650/iss1/71](http://lib.dr.iastate.edu/ans_air/vol650/iss1/71)



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