

# DRY PERIOD INFECTIONS

## DRY COW CONSULTATION TOOL

UNIQUELY  
**BLUE**

ubroseal  blue



Developed with the scientific support of Peter Edmondson FRCVS, Udderwise.



# DRY PERIOD INFECTIONS

## DRY COW CONSULTATION TOOL (PART 1 OF 2)

New intramammary infections during the dry period come from environmental bacteria such as *Strep. uberis* and *E. coli*. These bacteria are more likely to enter the udder during the dry period if teats do not seal and can cause clinical mastitis in the next lactation.

The majority of clinical mastitis cases that occur within the first 30 days after calving are acquired during the dry period.<sup>1</sup>

Please enter farmer's details:

Name:

Address:

How do you feel about your level of clinical mastitis?

Want to do better  Happy  Unhappy

What do you feel is the dry period infection risk for your herd?

Average  Low  High

1 Do more than one in 12 cows get mastitis within 30 days of calving?

MORE INFO



No

Yes

2 Have you had any toxic mastitis cases or deaths from mastitis around calving in the last year?



No

Yes

BACK

How did you answer?

NO TO BOTH

YES TO EITHER

Farmer's name:

## DRY COW CONSULTATION TOOL (PART 2 OF 2)

Complete this section if you answered 'NO' to questions 1 and 2.

	MORE INFO			
3 Is there evidence that environmental bacteria cause mastitis in your herd?	I do not know	<input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>
4 Are dry cows bedded up every day?			Yes <input type="checkbox"/>	No <input type="checkbox"/>
5 Is all bedding used for dry cows stored under cover and dry before applied?			Yes <input type="checkbox"/>	No <input type="checkbox"/>
6 Do you have at least 10% more cubicles than the number of dry cows?	Not applicable	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
7 Do dry cows have enough lying area in loose bedded or straw yards?	Not applicable	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8 Are loosely bedded or straw yards cleaned out completely at least every 3 to 4 weeks?	Not applicable	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
9 Have you had training in the correct way to infuse teat seal and is every teat thoroughly disinfected with alcohol before infusion?			Yes <input type="checkbox"/>	No <input type="checkbox"/>
10 Do any cows have teat-end damage, such as hyperkeratosis, at dry off?			No <input type="checkbox"/>	Yes <input type="checkbox"/>
11 Do cows ever leak milk after dry off, in the dry period or before calving?			No <input type="checkbox"/>	Yes <input type="checkbox"/>
12 What is the average daily yield of cows at dry off?			<21L <input type="checkbox"/>	>21L <input type="checkbox"/>
13 Which cows get teat seal at dry off?	Selected cows	<input type="checkbox"/>	All <input type="checkbox"/>	None <input type="checkbox"/>

**BACK**

How did you answer? **ALL GREEN** **ANY RED**

Farmer's name:

## DRY COW CONSULTATION TOOL (PART 2 OF 2)

Complete this section if you answered 'YES' to either questions 1 or 2.

	MORE INFO			
3 Is there evidence that environmental bacteria cause mastitis in your herd?	I do not know	<input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>
4 Are dry cows bedded up every day?			Yes <input type="checkbox"/>	No <input type="checkbox"/>
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**BACK**

How did you answer? **ANY RED**

Farmer's name:

# DRY COW CONSULTATION TOOL

## RESULTS

Farmers who answered 'NO' to both Q1 and Q2 and 'ALL GREEN' to Q3 to Q13.

### Low level of infection

#### FUTURE ACTION

Your answers suggest that you do not have problems with dry period infections at the current time and your risk of dry period infection is low.  
Keep up the good work and share your best practice ideas with others!



Select page 2 and 5 when printing or saving this document.



Farmer's name:

# DRY COW CONSULTATION TOOL

## RESULTS

Farmers who answered 'NO' to both Q1 and Q2 and 'ANY RED' to Q3 to Q13.

### Low level of infection

#### FUTURE ACTION

Your answers suggest that you do not have problems with dry period infections at the current time, but there is a **risk of dry period infections in the future**. With your veterinarian, consider how you could move any red areas to green. Go for "quick wins" first, such as using teat sealant correctly in every cow.



Select page 2 and 6 when printing or saving this document.



Farmer's name:

# DRY COW CONSULTATION TOOL

## RESULTS

Farmers who answered 'YES' to either Q1 or Q2 or both and 'ANY RED' to Q3 to Q13.

### High level of infection

#### FUTURE ACTION

Dry period infections are causing mastitis problems in your herd. With your veterinarian, look at questions 4 to 13; where your answer is red, consider how you could move to green. Go for 'quick wins' first, such as using teat sealant correctly in every cow.



Select page 2 and 7 when printing or saving this document.



## NOTES:

- 1 The target<sup>2</sup> is to have at most one in twelve cows (8%) with a case of clinical mastitis within 30 days of calving. If this figure is higher this suggests problems with dry period infections.
- 2 Acute or toxic mastitis around calving is most likely to be due to *E. coli* infection and can result in death of the cow. This can originate from dry period infections.
- 3 Isolation of environmental bacteria from early lactation clinical mastitis cases is indicative of a higher risk of dry period infections.
- 4 Dry cows should be bedded up daily with clean and dry bedding, no matter what housing system is used. The risk of dry period infections reduces with clean udders and teats.<sup>3</sup>
- 5 All bedding materials should be stored in dry conditions so that they can absorb moisture when applied to the beds.
- 6 Cows need space and do not always want to lie down next to each other. The recommendation<sup>4</sup> is to have 10% more freestalls (cubicles) than cows. There is a greater risk of cows lying down in passageways or standing for too long if there are not enough freestalls or if they are uncomfortable, increasing the risk of dry period infections.
- 7 The recommendation is that dry cows need 1.25m<sup>2</sup> lying area/1,000L production when bedded on loose yards. An 8,000 litre yield cow needs 10m<sup>2</sup>, a 10,000L needs 12.5m<sup>2</sup>, a 12,000L cows needs 15m<sup>2</sup>. These cows can lie anywhere, and it is likely that they will lie on some faecal contamination increasing the risk of dry period infections.<sup>3</sup>
- 8 Anyone infusing teat seal should be suitably trained. There is a greater risk of introducing environmental bacteria into the udder if teats are not thoroughly disinfected before any intramammary infusion at dry off. Acute mastitis after dry off has been linked to poor teat disinfection prior to intramammary treatment.
- 9 The teat canal is the primary defence mechanism to prevent bacteria entering the udder. Cows with damaged teats at dry off can have an increased risk of mastitis.
- 10 One of the easiest ways to assess teat leakage is to look carefully at the backs of the freestall beds for traces of milk or look for wet teats on cows dried off within the last three days. A study showed that 24.5% of cows leaked milk within 52 hours of dry off and that there was 50% more clinical mastitis in those cows compared to cows that did not leak milk. These study cows were not dried off with teat seal.<sup>5</sup>
- 11 Cows that leak milk before calving will have a greater mastitis risk. This is because bacteria can enter the udder easily. Cows are not milked before calving and so these bacteria can multiply and cause mastitis.
- 12 Research shows that 67% of teats of cows yielding 21L/day or more at dry off were open seven days after being dried off. Just under 50% of these teats were still open six weeks after dry off. 50% of teats of cows yielding less than 21L/day at dry off were open seven days after being dried off. 23% of these teats were still open six weeks after dry off.<sup>6</sup>
- 13 A meta-analysis of published papers showed that teat sealants significantly reduce the risk of new infections and reduce the risk of clinical mastitis after calving.<sup>7</sup>





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# ubroseal blue



**References:** **1.** Green MJ, Green LE, Medley GF, Schukken YH, Bradley AJ. Influence of dry period bacterial intramammary infection on clinical mastitis in dairy cows. *J Dairy Sci.* 2002;85:2589–2599. **2.** Mastitis in dairy cows: what do records tell us? Agriculture and Horticulture Development Board (AHDB) website. Available at: <https://ahdb.org.uk/knowledge-library/mastitis-in-dairy-cows-what-do-records-tell-us>. Accessed January 27, 2021. **3.** Green MJ, Bradley AJ, Medley GF, Browne WJ. Cow, farm, and management factors during the dry period that determine the rate of clinical mastitis after calving. *J Dairy Sci.* 2007;90:3764–3776. **4.** Dairy housing cubicles. Agriculture and Horticulture Development Board (AHDB) website. Available at: <https://ahdb.org.uk/knowledge-library/dairy-housing-cubicles>. Accessed January 27, 2021. **5.** De Prado-Taranilla AI, Holstege MMC, Bertocchi L, et al. Incidence of milk leakage after dry-off in European dairy herds, related risk factors, and its role in new intramammary infections. *J Dairy Sci.* 2020;103:9224–9237. **6.** Dingwell RT, Timms LL, Sargeant JM, Kelton DF, Schukken YH, Leslie KE. The association of teat canal closure and other risk factors for new dry period intramammary infections. Proceedings of the 42<sup>nd</sup> Annual Meeting of the National Mastitis Council, Inc.; January 26–29, 2003; Fort Worth, TX. 2003:298–299. **7.** Rabiee AR, Lean IJ. The effect of internal teat sealant products (Teatseal and Orbeseal) on intramammary infection, clinical mastitis, and somatic cell counts in lactating dairy cows: a meta-analysis. *J Dairy Sci.* 2013;96:6915–6931.

UBROSEAL® Blue Dry Cow 2.6 g Intramammary Suspension for Cattle contains bismuth subnitrate. UK: POM-V. IE: POM. Further information available in the SPC or from Boehringer Ingelheim Animal Health UK Ltd. RG12 8YS, UK. UK Tel: 01344 746960 (sales) or 01344 746957 (technical), IE Tel: 01 291 3985 (all queries). Email: [vetenquiries@boehringer-ingelheim.com](mailto:vetenquiries@boehringer-ingelheim.com).

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