

Selective dry cow therapy

With legislation coming in 2022, it's wise to get familiar with this approach

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The dry period is an important time for mastitis control on dairy farms – it provides opportunities to treat any existing infections at the end of the lactation and to prevent new infections from occurring.

On the majority of Irish farms, this is achieved by blanket treating every cow with an intramammary antibiotic at dry-off, in combination with a teat seal.

Blanket treating groups of animals with antibiotics when a large proportion of those animals are healthy is a questionable practice, as it can contribute to antimicrobial resistance (AMR). AMR occurs when a bacteria is no longer susceptible to an antimicrobial that was previously effective.

AMR is a major concern in both animal and human health, and as a result, legislation on responsible use of antimicrobials will come into effect in January 2022.

Selective dry cow therapy involves treating only cows that have an infec-

tion with an intramammary antibiotic and the remaining cows are dried off with a teat seal only.

We carried out a trial to look at the effect of selective dry cow therapy on five commercial herds in the south-west of Ireland. All herds were spring-calving, pasture-based systems, had a bulk tank SCC less than 200,000 cells/ml for the year and were carrying out regular milk recording.

For each of the five herds, cows with all milk recordings under 200,000 cells/ml were divided into two groups – one group dried off with teat seal only (297 cows) and the other dried off with antibiotic dry cow tube plus a teat seal (294 cows).

Using the milk recordings from the following lactation, we found that cows treated with a teat seal only had a higher SCC than cows treated with an antibiotic plus a teat seal.

Cows treated with a teat seal only also had a higher chance of having an infected quarter at calving, compared to the antibiotic cows. However, for some herds, there was no difference between the SCC of teat seal only-treated cows and the antibiotic plus teat seal-treated cows.

This would indicate that other herd factors, such as the level of infection in the herd, can influence the success of treating cows with teat seal only at dry-off.

Selective dry cow therapy can result in a reduction of antibiotics at dry-off, but it may not be suitable for every herd. Some points to consider before using selective dry cow therapy are:



The use of antibiotics in dairying will fall dramatically in coming years.

- Individual cow SCC.
- Bulk tank SCC.
- Number of clinical mastitis cases in the herd.
- Hygiene levels at dry-off and across the dry and calving period.

Some general management recommendations around drying off are:

- Clip cows tails before dry-off.
- Dry off cows as soon as yield has reduced to 9l per day.
- Preparation is key – set aside adequate time to carry out the job and dry off cows in manageable batches across a number of milkings, if required

Drying off procedure:

• Treat the dry-off procedure as if it was a surgery – wear milking gloves and an apron, and keep them as clean as possible.

• Before treating the cows, disinfect each teat by thoroughly scrubbing them with a wipe or cotton swab containing a disinfectant. Start with front teats first, followed by rear teats to avoid recontamination.

• When infusing the treatment, start with rear teats first, followed by front teats to avoid recontamination.

• Keep the nozzle of the tube sterile to prevent introducing new infections into the teat.

• The first two weeks after dry off and the two weeks before calving are when a new infection is most likely to occur over the dry period – extra attention should be paid to keep cubicles and housing clean at this time, to reduce the risk of new infections.

The Dairy Edge Podcast

The Dairy Edge is Teagasc's weekly podcast covering news, information, tips and advice for dairy farmers.

Presented by Emma Louise Coffey, The Dairy Edge provides insights and opinion to improve your dairy farm performance.

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Clare Clabby.

Farm profile

In a recent edition of *The Dairy Edge*, the Teagasc dairy podcast, Emma Louise Coffey discussed selective dry cow therapy with Brendan Ryan, manager of the dairy herd at Pallaskerry Agricultural College.

Brendan described the 400-cow herd as high-EBI, Friesian but with 40% of the cows having some Jersey genetics.

"The herd is primarily grass-based, yielding circa 450kg of milk solids and receiving 750kg of meal. It's a fast-growing, relatively young herd, with 43% heifers in 2020, so our solids will dip this year.

"We have recently built 465 cubicles, which would equate to 2.8 cows/ha, that will be our upper limit in terms of cow numbers."

Brendan described how the farm is in its fifth year using selective dry cow therapy.

"In the first year, we used it on just 24 cows. They were all below 50,000 cell count and each quarter was tested individually to ensure there was no 'high' quarter.

"By the third year, we had increased our numbers to a level where we participated in the Teagasc Moorepark trial (led by Clare Clabby) where we had 100 cows treated conventionally and 100 on selective dry cow therapy."

In the fourth year (2019), 86% of the Pallaskerry cows were dried off using teat sealer only. Emma Louise Coffey asked Brendan to summarise his advice based on his experience.

"It's important to start small," said Brendan.

"Begin with 8-10% of the herd and be sure to test all quarters. Milk recording is really important to know the health status of the cow – three or four milk recordings a year is not enough.

"Selective dry cow therapy should be selected for the healthiest animals. I'd be cautious about cows with warts on their teats or animals who are inclined to lie in passageways.

"Relatively late calvers, say after St Patrick's day, also seem to do less well with selective dry cow therapy. Heifers should be sealed five to six weeks before calving.

"Generally speaking, good housing is very important. It's also vital to take your time and get well set-up to dry off animals. We find that if we are well organised and not rushing, we do a better job with selective dry cow therapy."