DRY COW MANAGEMENT

• Drying off cows
• Body condition score at dry off
• Parasite control at housing
Drying off cows

The purpose of the dry cow period at the end of lactation is to allow a period of rest before the start of the next lactation after calving. The udder tissue will particularly benefit from this rest period to allow for the milk producing tissue to repair and rejuvenate, so that good volumes of the highest quality milk can be produced again in the next lactation.

When to dry off? Factors to consider:
- Calving date – cows should get a minimum dry period of two months before the next lactation
- Withhold period of anthelmintic or dry cow antibiotic treatment
- Low volume – dry off cows as soon as their daily milk production drops to 9L

An extended dry period should be considered for:
- High SCC cows – dry off early to improve mastitis cure rates (>9 weeks)
- Low Body Condition Score cows – especially first calvers
See opposite page for further information on dry cow feeding.

Which products should be used at dry-off?
Dry cow therapy (DCT) consists of intramammary antibiotic tubes and / or internal teat sealer.

The purpose of DCT is to:
1. Eliminate existing udder infections at the end of lactation
2. Prevent new infections over the dry period

Use the GII Milk Culturing Service to identify the most effective antibiotics for your herd.

Drying-off routine

The aim of antibiotic DCT is to cure infections in the udder, but if not carried out hygienically, tubing cows can introduce bacteria into the udder. 60% of mastitis cases in early lactation are caused by infections that occurred at dry-off or during the dry period.

It is very easy to introduce bacteria into the udder at drying-off if the teats are not disinfected AND sterilised.

It pays to implement the correct drying-off procedure:
1. During milking, mark and draft out the group of cows to be dried off.
2. Finish milking, clean out the parlour and organise tubes plus disinfection / sterilising equipment.
3. Use a new pair of gloves and keep them clean while drying off cows.
4. Mark the cows again with a different colour to indicate that they are now being treated; it is important to do this before they are treated.
5. Disinfect the teats with teat dip or spray and then wipe off.
6. Then sterilise the teat ends with cotton wool and meths, or medicated wipes.
7. Administer the antibiotic tube and massage into the udder.
8. When inserting the sealer, pinch the base of the teat so that the sealer remains in the teat canal and do not massage up into the udder.
9. Record the treatment details: animal numbers, date, product used and withholding time.

Do you have antibiotic resistant bacteria causing mastitis and high SCC in your herd?

Use the GII Milk Culturing Service to identify the most effective antibiotic treatments for use in your herd at dry off. For further information contact your Milk Quality Manager.

Drying-off tips:

- Dry off cows abruptly, as soon as production reaches 9 litres per day.
- Dry off cows in small batches (e.g. one row of the parlour at a time).
- Don’t dry off cows on an empty stomach, have some breakfast first!
- Don’t leave cows in roadways or yards after drying off, leave in an area that is clean for lying on.

Further information is available from your Milk Quality Manager and there are step-by-step guidelines for managing this process in the Drying-off section of the CellCheck Farm Guidelines for Mastitis Control.
Getting cow condition right at calving

During the dry period the cow’s diet must be managed to ensure she calves down and begins the next lactation in the correct Body Condition Score (BCS). If the cow is too fat or too thin at calving, subsequent milk production and fertility will suffer.

Nutrition-related problems around calving such as milk fever and retained cleanings can also have significant effects on subsequent production in the herd.

Ensure cows are in the correct Body Condition Score at calving:

- Cows should be dried off at BCS 3.0-3.25, which is the condition in which they should calve down.
- Where there is variation in the herd, batch cows according to body condition score and feed accordingly.

Antimicrobial Resistance

Antimicrobial resistance (AMR) is an increasing problem in animal and human medicine. This resistance in bacteria is leading to antibiotic treatments becoming less effective at treating infections. Reduced and responsible use of antibiotics will slow the development of AMR.

The main purpose of antibiotic treatment at dry-off is to eliminate any existing udder infections at the end of lactation. Cows that have not had a mastitis infection during this lactation, and have had continuous low SCC results from milk recording records, may not need antibiotic treatment at dry-off.

Selecting DCT

Selective DCT is only suitable for herds where:

- Bulk tank SCC is less than 200,000 cells / ml all year.
- At least four milk recording results are available.
- Milk culturing tests have been carried out.
- Clinical cases of mastitis have been recorded.
- Mastitis is under control in the herd.

Otherwise, use blanket DCT

Selective DCT is only suitable for cows where:

- Individual SCC <200,000 for the last 3 milk recordings.
- No clinical cases of mastitis detected this lactation.

Hygiene at drying-off is even more important if the cow is being given sealer only, with no antibiotic tube.

Selective DCT can be very successful, but only if the cows are chosen correctly and sealer applied hygienically.

Blanket DCT:
This is when all quarters of all cows are treated with antibiotic.

Selective DCT:
This is when only selected cows, i.e. those with infected quarters, are treated with antibiotic.

<table>
<thead>
<tr>
<th>BODY CONDITION SCORE AT CALVING</th>
<th>2.5</th>
<th>2.75</th>
<th>3.0</th>
<th>3.25</th>
<th>3.5</th>
<th>3.75</th>
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<td>Low milk yield Anoestrus</td>
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<tr>
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<tr>
<td>Milk fever Ketosis</td>
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For example, if cows have a body condition score of 2.5 at drying-off, they should be dry for 12-14 weeks. If silage quality is 68-72 DMD, they should be offered silage ad lib and 2kg of a low-protein concentrate.

Source: Teagasc Dairy Manual
Parasite control at housing

Housing provides an opportunity for parasite control in cattle. The main targets for parasite control at this time of year are gutworms, lungworm and liver fluke. Cattle only pick up these parasites when grazing. Therefore, once housed, cattle will no longer pick up new fluke or worm parasites. This means that effective parasite treatments at or after housing will keep the animals free of worms and liver fluke until they return to pasture the next year.

Liver fluke
Of all the parasites affecting cattle in Ireland, liver fluke has been shown to have the biggest effect on milking cow performance: milk volume & solids, body condition, immunity and fertility are all affected by the parasite. Exposure of dairy cows to liver fluke at grazing is best monitored by bulk milk tests for liver fluke antibody levels. All spring calving herds at risk of liver fluke should be treated at or shortly after housing.

Worms
Due to the mild and damp Irish climate, cattle of all ages get exposed to worms throughout the grazing season. Stomach worms are present on most Irish farms and the Ostertagia results from the GII Herd Disease Screening Service confirm this. These worms damage the lining of the animal’s gut, so that nutrient uptake is reduced. In addition, they reduce voluntary feed intake by animals, so that milk production and daily liveweight gains are further affected. As well as clearing the worm burden from animals for the winter period, a treatment at housing will also reduce the carryover of worms onto pasture next year.

It is important that young cattle in particular are clear of lungworm and have healthy lungs over winter. Lungworm can increase cattle’s susceptibility to pneumonia after housing. Products that treat gutworms will also be active against lungworm.

Lice
While lice live on animals all year round, their numbers rapidly multiply during the housed period. The lice feed on blood or skin from the animal, but more importantly cause severe irritation that reduces feed intakes. To control the problem, it is key that treatments are used early in the housed period, before lice numbers increase to an uncontrollable level. If an ivermectin product is used at housing, lice will be controlled for 2-3 weeks. Follow this up with lice specific treatment product after three weeks. All animals in the shed should be treated on the same day.

Rumen fluke
While many herds in Ireland have some level of rumen fluke infection, in most herds this is of no significance to animal health or production. A positive result for rumen fluke eggs in dung samples is not an indication for treatment with oxyclosanide, which will often make animals unnecessarily sick.

### ACTIVE INGREDIENT
| SAMPLE TRADE NAMES | FLUKE | GUTWORMS & LUNGWORM | LICE | WITHDRAWAL TIMES*
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<tr>
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<tr>
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<tr>
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<td></td>
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Record and observe all animal treatments for meat and milk withhold times where relevant.

* Withdrawal times are subject to change. Always read the product label.
** A single treatment shortly after housing should clear liver fluke infections without a follow-up treatment being required.
*** Ivermectin products may be used in dry cows and dairy heifers if they are more than 60 days from calving. They cannot be used in animals currently producing milk.
**** A follow-up treatment 6-8 weeks after the initial treatment may be required for complete clearance of all liver fluke.