

GUIDELINE 16

Dry off abruptly taking steps to reduce yield

In this guideline:

16.1 Dry off cows as soon as their production reaches 5 L or less per day

16.2 Reduce milk production during dry off

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16.5 Feed "maintenance" diet for the first 7-14 days after dry off

The method used to dry off cows can influence how many udder infections establish during the dry period.

The aim is to shut down milk secretion and seal the teat canal as rapidly as possible - this usually takes about two weeks. Most new infections occur in quarters where the teat canal has not sealed.

During the first two weeks after drying off, it is also important to minimise the number of bacteria that contaminate the teats. Teat spraying after the last milking ensures complete coverage of the teat by disinfectant and reduces the number of **cow-associated mastitis** bacteria present on the skin.

To reduce the number of **environmental mastitis** bacteria, areas where cows lie should be as clean as possible, with no bare ground or heavy manure soiling.



Good Read

[Technote 16 – Dry off abruptly](#)

16.1 Dry off cows as soon as their production reaches 5 L or less per day.

As cows near the end of lactation their milk quality changes. Milk from low-producing cows may cause processing problems for some dairy products.

Cows producing less than five litres per day (0.4 kg MS/day) may have an elevated cell count even if uninfected. This may affect the bulk milk SCC, especially as total milk volume in the vat declines towards the end of the season.

16.2 Reduce milk production by reducing feed during dry off.

Decide the date of the final milking for target cows.

Start preparation for drying off at least a week before date of final milking.



Feeding levels for low-moderate production cows

For cows producing 5-10 L/d (0.5-1.0 kg MS/day):

- No adjustment required
- Reduce intakes to “Maintenance” after last milking for 7-14 days - see Table.
- Maintain access to water at all times.



Feeding levels for high production cows

For cows producing over 10 L/day (>1.0 kg MS/day):

- Reduce feed intake by 30-50% for last week before dry off, and remove any concentrates
- Reduce intakes to “Maintenance” after last milking for 7-14 days - see Table.
- Maintain access to water at all times.



Grazing residuals after 6 hours grazing for cows given:

- 14kg DM per day (right side of fence) and
- 6kg DM per day (left side of fence)

Daily metabolisable energy requirements and dry matter intakes (DMI) for a 500kg cow between dry off and calving.

	Days before and after dry off		Weeks before calving	
	7 days before	7 to 14 ³ after	8	4
Energy Requirements (MJ/day) for:				
Maintenance	59	59	59	59
Pregnancy	13	18	32	54
Milk (0.4 kg/MS/day)	40	-	54	-
Total Energy Requirements (MJ/day)	112	77	91	113
Dry Matter Intake (kg DM/day) for:				
Holding condition ¹	10	8	8.5	10
Adding condition (0.5 score/30 days)				
On Pasture	-	-	3.5	-
On Supplement ²	-	-	2.5	-
Total Dry Matter Intake (kg DM/day)	10	8	11-12	10

¹ Where DM supplied at 11 MJ/kg DM of feed.

² See "DairyNZ body condition scoring" book for more information on amounts of feed required to increase condition of dry cows.

³ Note that feed restriction after dry off can be lifted after 7 days, once gross swelling of the udder subsides.

16.3 Dry off abruptly; do not skip days or milkings.

Milk as usual until drying off.

Switching to **once daily milking** has no added benefits and will increase the bulk milk SCC. Switching to every other day milking or **intermittent milking** dramatically increases bulk milk SCC and increases the risk of mastitis during dry off.

At the last milking:

- Milk out as usual.
- Administer antibiotic DCT as recommended by [Guideline 17](#).
- Administer Internal Teat Sealants (ITS) as recommended by [Guideline 17](#).
- Cover whole surface of teat with freshly prepared teat disinfectant.



Treating mobs of cows

If treating a mob of cows early:

- Draft them out during milking, and hold on the yards until the rest of the cows have been milked.
- Bring them back into the dairy once the delivery pipe has been disconnected from the vat.
- Mark the cows, clean and disinfect the teats, treat with antibiotic DCT and/or ITS, and thoroughly spray teats with teat disinfectant.

16.4 Put cows in clean areas after giving DCT.

Avoid allowing them to lie down on bare ground or areas that are soiled with manure in the two hours immediately after you give antibiotic DCT or ITS.

For the next 1-2 weeks, cows should be grazed in paddocks that are well away from the milking herd and the milking area, so cows don't have the stimulus to let down milk.

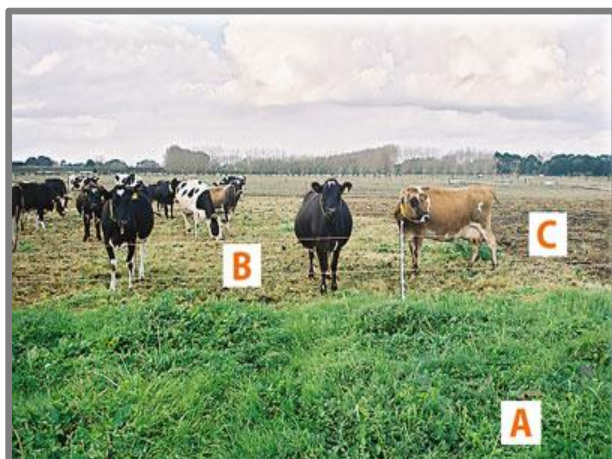
16.5 Feed 'maintenance' diet for the first 7-14 days after dry off.

Cows should be maintained on "maintenance" daily dry matter intakes for a maximum of 14 days after dry off. For many low yielding cows, this period can be shortened to about 7 days, depending on how quickly the swelling in the udders starts to subside.

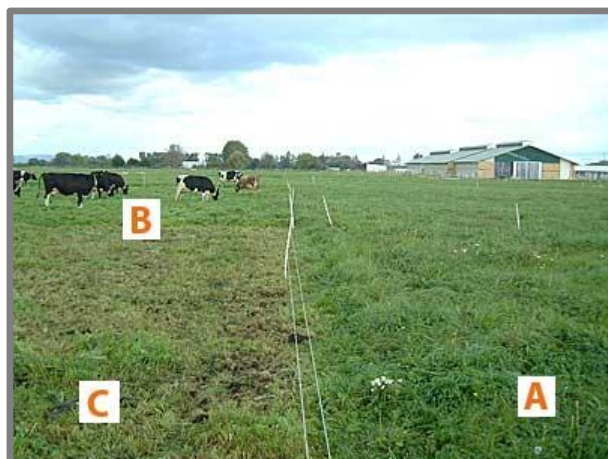
Maintenance is about 8 kg DM/day - see table in [Guideline 16.2](#) for calculations.

For dry matter intakes of 6 kg DM/day (first photo) or 14 kg DM/day (second photo), these photos show:

- pre grazing swards (A),
- post grazing residuals after 6 h (B)
- post grazing residuals after 24 h (C).



Dry Matter Intake of 6 kg DM/day
NB: Too low for drying off cows



Dry Matter Intake of 14 kg DM/day
NB: Too high for drying off cows