

Ten Commandments of the short dry period

*To get the most out of the short dry period, you have to manage it properly.
Here are ten rules to help you make it work!*

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Rule #1: A single ration for the entire dry period

In managing the short dry period, it is absolutely essential that cows receive only the pre-calving ration during the entire dry period. Don't even think about feeding the far-off ration for two weeks and then the pre-calving ration for the next three! The reason is simple: the rumen can't adapt to all those ration changes in only 35 days. So cows should receive the late lactation diet until dry-off (*i.e.*, 35 days before calving) and then be fed the pre-calving ration during the 35-day dry period, as illustrated in Figure 1.

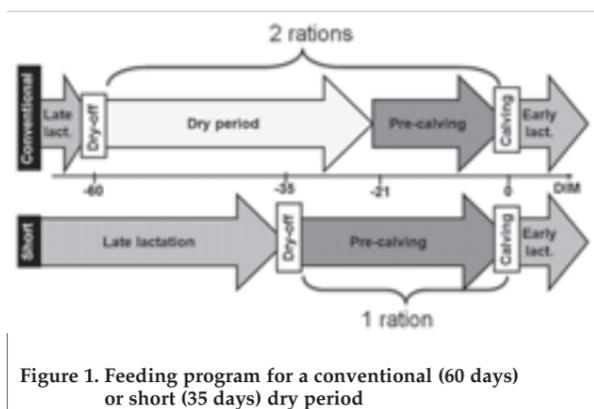


Figure 1. Feeding program for a conventional (60 days) or short (35 days) dry period

Rule #2: Switch directly from the late lactation ration to the pre-calving ration

To help dry off your cows, you usually give them dry hay for a few days. Since the first rule of the short dry period dictates switching directly from the late lactation ration to the pre-calving ration, is it possible to continue doing that? The answer is "yes, but..." Yes, you can feed them dry hay, but there are two conditions.

First, it is important not to exceed three or four days of dry hay. Beyond that, the rumen will have already begun to adapt to the hay. That means the cow will be subjected to unnecessary stress just before you change her diet again with the pre-calving ration.

Second, feeding dry hay should be used as a strategy to reduce milk production. The dry hay days therefore need to PRECEDE the dry-off date, as shown in Figure 2. That way the cows receive the pre-calving ration throughout the entire 35-day dry period, as recommended.

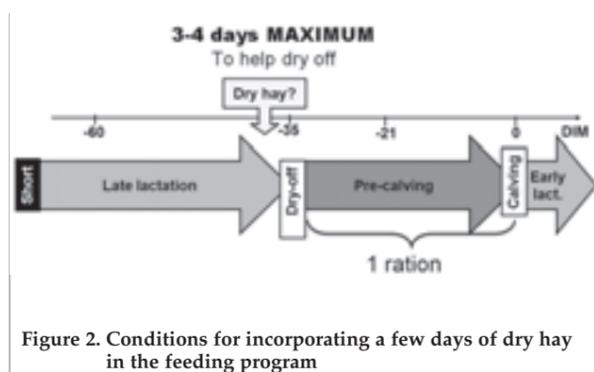


Figure 2. Conditions for incorporating a few days of dry hay in the feeding program

Rule #3: Perfectly balanced rations

Have your advisor check the ration you feed your dry cows on a regular basis. The ration should meet all the needs of close-up cows while avoiding any excess. You also need to verify the cows' actual feed intake regularly. The ration worked out on paper has to be in keeping with the amount of feed that is actually consumed by your cows.

Rule #4: Really aim for 35 days

Our latest analyses clearly reveal the risks associated with a dry period that is too long or too short, even in the case of a short dry period strategy. Based on our observations, the ideal length for the dry period is between 30

and 41 days (Figure 3). At 29 days or less, milk yield is affected. There is also an increased risk of antibiotic residues in early lactation, premature culling and mortality.

Conversely, cows that are dry for 42 days or more are often overfed, since the pre-calving ration exceeds their needs. These cows are therefore at greater risk of developing insulin resistance and suffering from metabolic disorders, not to mention the adverse effect on their reproductive performance.

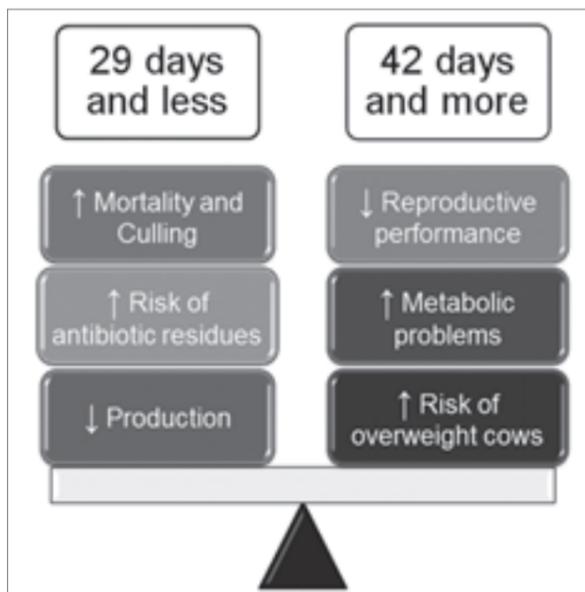


Figure 3. Effects observed when the duration of the dry period is 29 days or less or 42 days or more

Aiming for a 35-day dry period means that the dry period is sure to fall within the optimum range, with enough leeway to allow for early or late calvings.

Rule #5: For cows that are unable to produce milk until 35 days prior to calving, stick to 60 days

As the explanation of Rule #4 indicates, dry periods of 42 days or more are to be avoided. The short dry period should only be used for cows that are able to produce milk until 35 days prior to calving. Otherwise, it's better to adopt a strategy based on a 60-day dry period, with a conventional diet (dry-off and pre-calving rations). That way, you steer clear of undesirable situations in which, for example, the cows would still be receiving a pre-calving ration at 48 days into the dry period.

Rule #6: Target cows that are still producing milk 60 days prior to calving

A good way to identify candidates for a short dry period is to look at milk production around 60 days before the expected calving date. If a cow is already producing less than 10 kg/d at that time, she's unlikely to continue producing milk for another 25 days.

On the other hand, a cow that is still producing 20 kg/d or more 60 days before calving is an excellent candidate for a short dry period. It will be a lot easier for this cow to produce milk for the next 25 days and reduce production gradually rather than be pressured to dry off more quickly. In addition to getting 25 extra days in milk, you reduce stress during the transition period – already a critical time for the cow.

Rule #7: Don't exclude cows ending their first lactation

Rumour has it that it's best to avoid a short dry period for cows ending their first lactation because it may reduce milk production in the next lactation. In fact, young cows will produce a little less milk in their second lactation – about 1.4 kg/d less, according to our study – but component levels will be higher: more fat (3.92 vs 3.86 per cent) and especially more protein (3.40 vs 3.31 per cent). All things considered, energy-corrected milk yield (taking into account components) is equivalent

whether the cow has had a short dry period or a conventional one.

But cows designated for short dry period management produce milk for an extra 25 days. For first-lactation cows, that represents about of milk. Moreover, that milk is also very rich in components – 4.4 per cent fat and 3.8 per cent protein on average, according to our study.

If we compare the cows' total production from 60 days before calving to the end of the following lactation, the short dry period is still a sound option for any cow producing enough milk in late lactation, regardless of the cow's age.

Rule #8: Keep an accurate record of conception dates

Keeping close track of conception dates is essential if you want to reduce the risks of surprise calvings. In those cases, the dry period is too short and the cows are not adequately prepared for calving. This rule is essential if you want to optimize the transition from one lactation to the next, and it applies to the short dry period as much as to the conventional one.

For example, a cow pregnant after the previous service could calve 21 days earlier than expected. If you were aiming for a 35-day dry period, that period would then only be 14 days long. And that is far too short a time when at least 25 days are needed for the mammary gland to renew itself. In a conventional dry period management system, this cow wouldn't have had time to adapt to the pre-calving ration and so wouldn't be ready to receive the early lactation diet.

Rule #9: Identify cows pregnant with twins

Using a short dry period strategy for a cow pregnant with twins isn't a problem. However, given the high likelihood that calving will be premature, it's best to dry the cow off at day -42 to ensure a 35-day dry period even if she calves a week early (Figure 4).

Even when it isn't possible to determine the number of offspring before birth, a short dry period can still be used without any problem. If a cow calves seven days early because of a multiple pregnancy, she will still have had a 28-day dry period. The mammary gland will have had enough time to renew itself. Depending on the antibiotic treatment used at dry-off, however, it is important to check the withdrawal period carefully.

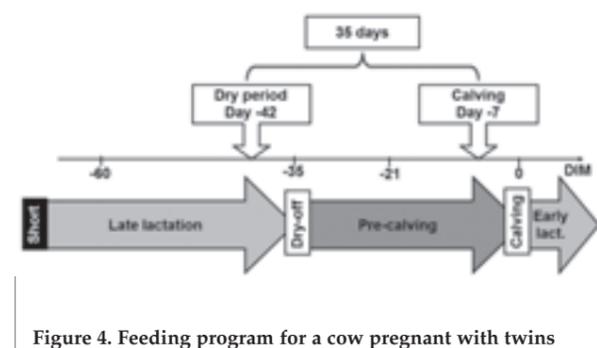


Figure 4. Feeding program for a cow pregnant with twins

Rule #10: Don't hesitate to ask questions!

To take no chances, the ultimate commandment for the short dry period is to get all the information you need and make sure you have a good understanding of all the aspects of this new management strategy. Your Valacta advisors have all the necessary information to help you and will be able to direct you to the appropriate resource people as required. So don't hesitate to discuss the matter with them.



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