

Many prospective house cow-keepers are deterred by the thought of traipsing out in all weathers to milk their cow twice a day. Particularly in the dark winter months, this can become an unwelcome chore. But do we have to milk our cows twice a day? And if the answer is no, then apart from the time saving, why might once-a-day milking be a desired option?

It is commonly assumed that a cow needs to be milked twice a day in order to keep her udder healthy and prevent her getting mastitis. This stems from experiences of herdsmen in conventional dairies, as well as house cow owners, where a cow that has not let down (fully given her milk) in the parlour, thus retaining some milk in her udder, subsequently gets mastitis.

Mastitis, however, is the result of a stress of some sort in a susceptible animal. This might be a cow who isn't in good health. Perhaps she is lacking the nutrients she needs from her diet, or is being kept in unsuitable conditions. The stress might be caused by being bullied by other cows and not being able to stand quietly at the hay feeder to eat, or shouted at by the farmer for some perceived misdemeanour, or chased around the field on a hot day by a walker's dog, or any other event that triggers the stress response and leaves her feeling anxious.

To milk once or twice a day...

... that is the question! **Christine Page** has an answer to this age-old conundrum



Developing a trusting relationship with your cow is the key to mastitis prevention

More often than not, whatever triggered her anxiety and resulted in her not letting down in the parlour will be the same trigger that caused the mastitis, and not the withholding of her milk per se.

Developing a trusting relationship with your cow, and keeping her content and nutritionally replete, is the best prevention for

illness or disease of any sort. And when it comes to milking frequency and mastitis, healthy, content cows rarely get mastitis, regardless of the length of time between milking.

Consider a freshly calved cow in a beef herd. Calves often favour the easy-to-access front quarters in the initial days, and only after a number of days or a week or more will they find their way around all four quarters. Frequently one quarter of an udder may not be suckled on for over a week after calving, and in milky beef cows it can be two or three weeks. These cows, however, rarely get mastitis and this is because, for the most part, they are contentedly mooching around a field with plentiful grass and little disturbance or stress.

When we relate this to our dairy cows, there are two main differences:

- Dairy cows will probably

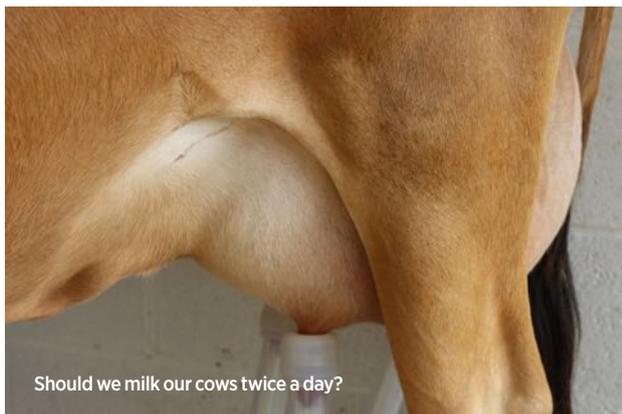
have considerably more milk than their calf can drink, or their calf has been removed or died.

- They are handled a great deal more frequently than beef cows. Both of these have the potential to cause stress and need to be considered when deciding on milking frequency.

A SENSIBLE START

It would be sensible to start with twice-a-day milking for a freshly calved cow who has lost her calf. The stress of losing her calf, either if it has died or been removed, could trigger mastitis and she will likely have a very full udder that will need easing.

Once she is fully settled into milking and is relaxed and at ease with the process, a move to once-a-day milking can be considered. This is done simply by lengthening the time between milking over ▶



Should we milk our cows twice a day?

a number of days from 12 hours, to 16 hours, and then 20 hours and finally to 24.

For a cow that has her calf at foot, milking once a day from the start makes the most sense because, in effect, the calf does the second milking and, if done proficiently (*see footnote*), there should be little stress. Once the calf is weaned, once-a-day milking can be continued for the remainder of the lactation.

Time-saving aside, there are several reasons why once-a-day milking will be attractive to many. One of the main benefits is the potential for increasing the nutrient value of the milk. Milk is between 85-90% water. The remaining 10-15% which gives the colour, texture, flavour and nutritional value, comes from what are referred to as 'milk solids'. Milk solids are made up of fats, sugars, proteins and a wide range of micro-nutrients, including many essential vitamins and minerals.

A cow constantly produces milk in her udder which will swell as it fills. As the udder becomes full, milk production continues, but some of the water in the milk already produced is resorbed back into the bloodstream. This has the effect of concentrating the milk solids to give a richer, creamier and more nutrient-dense milk.

This is important because, as well as making a lovely cup of coffee,



Cows milked once a day give a richer, creamier and more nutrient-dense milk

the many vital nutrients contained in milk will also be concentrated. Thus a given volume of milk from a healthy, well-managed cow milked once-a-day will be a much more nutritious product than from the same cow milked twice-a-day.

Daily yield volume will decrease on once-a-day milking to around two-thirds of that from twice-a-day. However, milk solids hardly reduce at all. This means that, for example, 15ltr of milk from a cow being milked twice a day might contain 90%, or 13.5ltr, water and 10%, or 1.5kg, of milk solids,

whereas the same cow milked just once a day giving 10ltr of milk might contain 85%, or 8.5ltr water, but 15%, or 1.5kg, of milk solids.

Once a cow has settled into a once-a-day milking routine she will adjust her production to maintain high milk solids, but with reduced metabolic stress. Therefore, if a primary reason for having a house cow is milk quality, not quantity, then milking once a day will provide this requirement.

THE WIN WIN OF ONCE A DAY

In fact, in recent years some milk processors, particularly in the organic sector, have moved away from paying dairy farmers on volume and instead pay premium prices for milk with high milk solids. To meet this demand, some dairy farmers have moved to once-a-day milking and reaped other benefits, including reduced labour, veterinary and feed costs, and increased fertility and longevity.

The reason for the improved health and

fertility outcomes is because a cow that is 100% dairy genetics, like a Jersey, rather than a dual-purpose animal, like a Dexter, will prioritise milk production over her own body maintenance. Therefore reducing her yield by milking only once a day reduces metabolic stress and allows her a better chance of maintaining her body condition.

Cows that can maintain their body condition are more fertile and it will be easier to get her back in calf. There is another positive feedback loop with the maintenance of body condition and overall health, which is that this improves immunity, increases stress tolerance and reduces susceptibility to illness or disease that, in turn, allows you to continue once-a-day milking with a significantly reduced risk of mastitis.

For those who have the necessary knowledge, facilities and willingness to fully meet the nutritional and emotional needs of their cows, once-a-day milking can offer not only a time-saving option, but provide nutrient-rich milk for you and your family, and an easy life for a healthy, content cow. ■

NEXT TIME: Harmonious milking techniques that will give you the cream.

For a full, detailed explanation on how to successfully milk your cow while she is also raising her calf see the Pirate's Code to Cow-Calf Dairying series on Christine Page's website, www.smilingtreefarm.com/blog/cow-calf-dairying-pirates-code-1

All about Christine Page

Christine Page owns and runs a small-scale, regenerative organic pastoral farm in south Shropshire. For more information visit www.smilingtreefarm.com



Once-a-day milking changes a chore to a pleasure