

Field Services



The more water your cows drink, the more they will milk...

You can achieve maximum water intake with good quality clean water and easy access to drinkers. Over 85% of milk is water. Water, light and air are the cheapest feed!

In a survey conducted by CowSignals® colleagues, it was found that half of dairy farms have very poor quality water. This is because of irregular cleaning or because of bad systems where low connecting pipelines get full of dirt, etc. In some cases farms were found to have high levels of bacteria, iron, manganese, etc. The solution is simple: clean troughs every Monday, Wednesday and Friday as a routine. Use a brush to clean properly, because the slimy rims grow bacteria. This is a way to assure water intake. The cleaning time is paid back in milk production!



Are they drinking enough water?

Look at the cows coats. Shiny, smooth coats are a sign of good water intake. 'Elastic' skin is a good sign: lift up a piece of skin from the side of a cow's neck and it should pop back in place within half a second. If the wrinkle stays there after releasing it is a sign of dehydration. What are the eyes telling you? Lively and round big eyes are good signs.

If heifers and cows have very stiff manure then likely there are not enough drinkers. Perhaps one 'big mama' is ruling the place, spending hours in front of the drinker to show everybody that she is the boss and the other cows do not get enough chance to drink. The best half will be okay, but the weakest 50% are suffering. One open trough drinker (5' of drinking space) per 20 cows is advised.

How do cows behave at the drinker? Are they scared of other cows or stray voltage? Are they looking around before drinking? Are they sniffing and not drinking? Are they passing the first drinker and walking to the next one? Are they sticking their tongue in first, to check the water temperature? Do you hear them making sucking noises? This means there is not enough water pressure or the drinker is too small. Can the cows reach the water or is the rim too high? Wide passages and drinkers 60cm (24") high are advised. If they are over 3 feet tall cows can find it difficult to drink – especially heifers. It is like drinking while we push on our throat. It is not a good feeling and makes the cows drink less (see picture above at center).

How many litres of water do they need?

Cows like to drink 10-15 times a day for half a minute - around 10 litres each time. In hot weather a high yielding cow can drink 200 litres per day. The normal drinking speed of a cow is about 20 litres per minute. The more drinkers you put in, the better chance that your heifers will drink enough water. Cows like to have a water depth of at least 7 cm. They have to dip their mouth in without sucking air at the sides of their lips. For 'fast drinkers', you need a water flow of 20 litres per minute. Test drinkers with a big bucket: do the drinkers supply 20 litres per minute? Are they easy to clean? Do they have nice round edges, so there are no risks of wounding the cow? Are they wide enough so a cow can stand straight and drink comfortably?

Tip tanks, open drinkers with quick plugs

They are all good systems but they all need attention. Tip tanks need to be tipped. Is this happening often enough? Shallow tanks with a slope and an easy plug are excellent because you can clean every corner with a brush easily. Fast drinkers need high pressure and volume. The cows will drink most of the food particles stuck to their nose and washed off in the water themselves during the same drink, so they stay cleaner.



Drinkers in the milk parlour?

It is better to have an excellent water supply in the barn than in the parlour where they can only use it twice a day for 15 minutes. If you have a very bad water supply in your barn, parlour drinkers can be an inexpensive way to improve water intake.

Water temperature

Don't worry about the temperature. As long as it stays above zero. First: make sure you have clean water. Second: make sure you have enough drinkers. Thirdly: check the pressure so they are always full. If these 3 major things are assured, then you can start to worry about the ideal temperature - around 17°C (63 °F). Cows drink more in winter time when you supply warm water. Water from the milk cooler can be used for the cows and a lot of people already do this. Just beware: if you don't clean the drinkers cows will drink less in the summer because of rapid bacterial growth. So, warm water in winter is ok, in summer it is risky. For cooling the cow in heat stress we prefer cold water.

Manure in the drinkers

The position of the drinkers is critical. If you have narrow passages use a fast drinker in every passage. Cows always like to drink when they come and go from the feeding alley. So a passage without a drinker is not a good idea.

Water immediately after calving

After calving unlimited lukewarm water is suggested to get the cow back in shape and get her eating as soon as possible. Some cows will drink 100 litres in the first hour post calving. There are advantages to adding glucose, propylene glycol and electrolytes to stimulate water and feed intake. Calf milk replacer can be mixed in warm water and fed to fresh cows as a means to achieving this as well as providing calcium at a critical time.

Water at pasture

Cows shouldn't have to walk further than 500 feet to water at pasture. Ideally this should **not** be from a stream or pond as this can pose both animal and environmental problems.

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