

The fast way to boost revenue on your dairy or beef farm – Improve the quality of stock drinking water!

To a cow, water ranks second only to oxygen in importance yet it is the most often neglected nutrient on the dairy farm. Milk is 87% water, so milk production is closely related to water intake. For every litre of milk produced a cow needs to drink at least three litres of water. For high-performing cows that's 150 litres of water every day. Both water intake and water quality are important. Even with apparently small water problems, cows can be down in milk by 10-20%! That's serious \$\$\$, how much is your farm losing?

Even the best-managed farms can overlook water quality issues because they are not always obvious. Cattle are sensitive to water palatability and prefer to drink clean, cool, fresh water - without contamination. If the water in your troughs looks murky, take action and reap the rewards. If you already have a good pumping system delivering the right amount of water to your troughs, what else should you do?

1. Check and improve the water quality at the source.

Whether you're pumping from a bore, a dam or a reservoir, check regularly on the clarity and smell of your water. If in doubt have it professionally tested. Protect your dam/reservoir catchment with fenced-off areas and plantings to minimise contamination. Ensure your bore cannot be contaminated by surface runoff. If pumping from an open dam, check that your intake has a screen fine enough to prevent plant and insect material being drawn in, located just a few centimetres below the surface.

2. Bury pipelines that are exposed to the sun - important!

You don't enjoy drinking warm water and neither do your cows! Black polythene pipe exposed to the sun gets extremely hot. Many farms have kilometres of pipe, typically along fence lines. Warm water in troughs is not only unpalatable, it promotes the growth of algae and bacteria due to less dissolved oxygen. Research indicates that the best drinking water temperature for cows is between 15°C and 17°C, so keep water cool by placing most of your pipe runs under the turf. A shallow depth is fine where you don't cultivate. If necessary, junctions and joins can be left exposed for easy inspection. So, what's the fastest way to bury your pipelines?

Tractor-mounted equipment is awkward to use near fence lines and hand-digging isn't practical for long runs. A good option is to use a portable "TerraTrencher", purpose-designed for this job. Invented by a Kiwi farmer and the size of a chainsaw, it can be used freehand near fences and gateways, or wheel-mounted for longer runs. It is also very handy for under-gating electric fence lines. (For more see <http://terrasaw.com/>).

3. Clean out your troughs regularly - ideally weekly.

With a brush and around 3 metres of flexible plastic tubing (about 38 mm/1 ½ inches dia. is good) you can easily clean and siphon out troughs, in rotation. It will make a huge difference, just watch how your cows react to fresh clean water - their extra intake means dollars in your pocket! If you don't have any shade/shelter near the water troughs, consider planting some to attract stock, reduce summer heat stress, and keep the water cool. Both heat stress/hyperthermia and dirty water result in lower milk production. A comfortable, happy dairy or beef animal is a productive one, and the same applies to every other animal on the farm.

4. Discover water leaks and pump failures - fast.

If a leak is not detected rapidly vital reservoirs can run down and put your stock under serious stress. Consider fitting a pressure gauge to your waterline where you can easily monitor it to detect any undue change. If your pumping station is at a distance consider fitting an easily visible pilot light so you can check it is OK. These devices - and the measures outlined above - cost little and quickly pay for themselves.