



Water quality: A hidden driver of productivity

Clean water matters more than you think.

With water making up around 70% of an animal's body weight, even small compromises in water quality can quickly translate into lost performance. Water quality is just as critical to livestock productivity as energy, protein, minerals and vitamins.

Clean, fresh water enables:

- Efficient digestion and metabolism of nutrients
- Optimal rumen function and feed utilisation
- Consistent water intake, supporting dry matter intake
- Better growth, production and overall animal wellbeing

A simple rule applies across all production systems: If you wouldn't drink it, your livestock shouldn't either.



The impact of water quality on water-based supplements

When supplements are delivered via drinking water, water quality becomes part of the nutrition system.

Key risks include:

- Stagnant water increasing total dissolved solids (TDS)
- Rising pH above 7.2, which can cause urea to break down into ammonia
- Reduced palatability for animals due to unpleasant taste or odour
- Lower availability of nitrogen for livestock

If troughs are not regularly cleaned and flushed, algae, fungi and microorganisms can develop. These organisms:

- Push pH even higher (often above 8.0)
- Accelerate urea degradation
- Compete for available nitrogen and phosphorus

The result: animals receive less of the supplement you are paying for.



Clean Water = Better Intake = Better Performance

Water quality is not just hygiene. It's a direct driver of productivity and profitability.

Poor water quality, feed dust, biological growth or faecal contamination, reduces intake. When animals drink less, they eat less, leading to lower growth and lost productivity.

Clean troughs support consistent intake, driving feed utilisation and animal performance, outcomes proven under commercial conditions:

- Cattle drinking clean water can gain up to **23% more weight** than those drinking from dams and **20% more** than those drinking dam water pumped into troughs*.
- For a mob of 100 animals starting at 300 kg, this represents **an additional 690 kg of liveweight over two months**

When should water troughs be cleaned?

Cleaning frequency depends on season, stocking rate and weather, but troughs should always be:

- Free from visible biological growth
- Free from dust, manure and debris
- Regularly flushed to prevent stagnant water



Images showing two contrasting conditions.

The top images show poor water trough hygiene, while the bottom images show proper hygiene with clean water for livestock.

* WILLMS, Walter D.; KENZIE, Orin R.; MCALLISTER, Tim A.; COLWELL, Doug; VEIRA, Doug; WILMSHURST, John F.; ENTZ, Toby; OLSON, Merle E. Effects of water quality on cattle performance. Journal of Range Management, v. 55, p. 452-460, Sept. 2002.