

# Keep An Eye On Your Water Supply

Hot summer days can significantly increase the water requirements of lactating dairy cows. In the summer months you should budget on about 70 litres/cow/day through the troughs. Cows that don't get sufficient water will have depressed appetites and loose condition, as well as have lower milk yields.

You can use the following steps to work out if the water flows to your troughs are adequate. Taking 70 litres/cow/day as your guide, and assuming that the cow has about 5 hrs a day for this to be consumed, the required flow rate to the troughs is =14 litres/cow/hour.

- Mark the water level on the side of a trough.
- Bucket out a known amount of water (e.g. ten 20 litre buckets) while holding the ballcock up.
- Push the ballcock right down and time the trough to refill back up to the mark.
- Compare the measured flow rate with the desired flow rate, as in the following example:

*E.G.* 200 cows drinking 14 litres/hr = 2800 litres/hr flow required  
To get litres/minute, divide this by 60:  $2800 / 60 = 47$  litres/minute required  
So it should take 4 min, 15 sec for 200 litres (ten 20 litre buckets) to refill.

Trough size is also important, more so in terms of access to water, rather than water storage. If troughs are too small, or under fences, the available space for each cow may be restricted. Quite often in these situations you will find dominant cows guarding the troughs from younger cows. If you are using zinc treatment in water as your only means of facial eczema prevention, then this adds an increased risk to your herd, especially younger cows.

If you have herds with over 400 cows in them, then you will need two troughs in the paddock. As a rule of thumb the trough size should be half the one hour flow demand

*For example:*

200 cows need 2,800 litres/hr, so the trough size should be at least 1400 litres (370 gallons).

Finally, don't underestimate the effect of water quality. Cows will refuse to drink unpalatable water. This is important to remember when using zinc in the water supply. Ideally a flavourant should be used to ensure cows continue to drink the water, and to ensure they are getting the zinc. We can check for zinc levels in the drinking water by sending a water sample to the lab. Zinc levels may be insufficient, adequate or toxic so checking levels is recommended.