

Dehydration in Recumbent Dairy Cows

Over the last few weeks we have seen many blood samples from recumbent cows arriving in the lab. Not unexpectedly calcium and/or magnesium deficiencies are common, however, there are many cows also showing mild to marked dehydration and, also occasionally, hypokalaemia. Both water and potassium deficiencies can exacerbate weakness, and potentially prevent a cow getting up even though calcium and magnesium imbalances are addressed.

Lactating dairy cows require large amounts of water and are rapidly affected by water deprivation. The loss of water through milk, faeces, urine and evaporation through the respiratory tract and skin may amount to around 100L. As dehydration sets in, urine concentrates, water content of faeces decreases and milk production drops, which decrease water loss, however at no point do the losses become insignificant. Not only does dehydration cause weakness, it decreases dry matter intake and reduces milk production, and may eventually result in organ dysfunction and death.

If provided with clean drinking water, dehydrated cows may drink voluntarily, or may need to be stomach tubed or administered IV fluids depending upon the level of debilitation.

