

Benefits of drenching cows

Lancashire-based vet Ian Cure, from Lambert, Leonard & May, looks at the situations where dairy cows will benefit from being drenched with oral fluids.

It is the age old problem, when any animal is sick the first thing it does is to stop eating and drinking properly. The best thing they could do is to keep eating, and more specifically, drinking properly in order to keep energy levels up and stay properly hydrated.

For dairy cows this is no different—if they can eat and drink then it provides much needed energy for the immune system to do its job. A 600kg Holstein cow will need 60 litres of water daily for maintenance of regular bodily functions without even factoring in milk production. When they are ill this figure rises. Getting a large amount of fluid into a cow that refuses to drink is no mean feat!

In recent years vets have used strong infusions of saline to stimulate a thirst and get a cow to drink. This is short acting and wears off after six hours. Oral fluids have always been used sparingly because they involved the use of a stomach tube, a funnel and a bucket of water which needed more than one person and a lot of time.

However, in recent years a number of drenching pumps have come on to the market. These allow large volumes of oral fluids to be given quickly, simply and, most

of the time, by one person. This means you can be sure the cow has taken on board adequate daily liquid and replaced any fluid lost. The accompanying table shows just how much fluid is required just to rehydrate a cow let alone supply its ongoing maintenance requirement of around 60 litres.

Most sick cows we get called to will benefit from oral fluids. These days farmers are much more used to treating sick animals themselves and so the animals that a vet is presented with are usually a lot more seriously ill than they used to be. A couple of common reasons for drenching cattle are:

—**Diarrhoea:** The cause is less important. What is important is that the cow is losing large quantities of fluid and most of the time not drinking enough even for maintenance. Daily, or even twice daily, drenching is hugely beneficial to scouring cows in order to keep them hydrated. The cause is important to ascertain if you need to drench the cow with something other than water—for example, in the case of a cow with acidosis I often use an antacid to try and normalise the rumen pH. Obviously, there are lots of products on the market now which cows can be

drenched with. It is important you discuss with your vet which ones should be used and when to avoid making the problem worse.

—**Toxic mastitis:** Cows are sick due to toxin production by the bacteria causing the mastitis. Often they are down and don't drink enough which causes them to become dehydrated and in turn can increase the concentration of the toxins in the blood. If it is possible to keep cows hydrated by drenching them this can dilute the toxins. It also increases blood flow to the kidneys which filter toxins out and reduce the severity of the problem.

For those of you keen to give it a go there are several drenching

sets on the market today, all of which are fairly easy to use after the first few times. Depending on the particular product the pumps and tubes range anywhere from £100 to £250.

Some training is required to make sure fluids are administered correctly and it may take a little while before you are happy drenching cows yourself using such a device. Some may be happier leaving it to the vet to do for that odd case that you think may benefit.

Either way, the use of oral fluids clearly benefits sick cows and only one animal needs to be saved or show an improvement in recovery rate to make itself pay.

Percentage dehydration	Description of signs	Volume of fluid required*
5%	Mild skin tent**, eyes not noticeably sunken.	30 litres
10%	Skin tenting prolonged, eyes sunken, tucked up in abdomen.	60 litres
15%	Skin tent almost permanent, severely sunken eyes, cow usually collapsed, requires vet.	90 litres

* approx 1% bodyweight x % dehydration.
 **Skin tenting = pinch up a section of skin over neck and see how quickly it returns to normal position. It should be almost immediate in well hydrated cows.

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Selecting right drench for the job

Water alone is good—and definitely best for cows previously ‘dripped’. But adding a specially formulated powder or liquid for different situations is even better and maximises the benefit gained from drenching the cow.

In cows that haven’t been dripped the water only stays in the rumen for a couple of hours unless electrolytes are added. The following sachets are easily available via your vet and are very useful when used in the right clinical situation.

—**Restore sachets:** This is for simple rehydration—a cow version of calf scour powders. A typical example of when to use this would be a cow with E. coli mastitis that is mildly dehydrated but still standing.

Or it may be used as follow-up

fluid therapy for a cow that has been previously ‘dripped’ by the vet.

—**Sachets for new calved cows:**

These contain calcium (to reduce the risk of milk fever), propionate (to supply energy and reduce the risk of ketosis) and yeast (to promote rumen function). They are ideally formulated to give a boost to cows in the first couple of weeks after calving or for cows at risk of ketosis, for example over-fat cows, cows that have had a difficult calving or cows that have had twins. If a cow has ketosis either use glycol/glycerol based drench or add 500ml propylene glycol to the mix. Be careful when using any propylene glycol products because it is very easy to cause toxicity which clinically looks very similar to the signs of ketosis. A

maximum of 500ml daily for three days should be given before consulting your vet for advice about further use.



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—**Sachets for cows not eating:** These are multi-purpose sachets similar to the fresh cow sachets but they also contain potassium and gentian root which stimulates appetite. They can be used in vir-

tually any situation where a cow is off food, for example a typical ‘cow off colour’.

—**Sachets for acidosis:** Primarily used when a cow has SARA or acute acidosis (so called ‘barley poisoning’). Often a scouring cow will be acidotic so it can benefit these cases by neutralising acidity and “binding the cow up”.



Vet Ian Cure.