Oral fluid therapy in adult cattle – December 2021

Have you ever considered how much water an adult cow requires? On average an adult cow needs at least 40L of water per day - this is usually double if lactating!

Many diseases will result in reduced water intake causing dehydration. Dehydration in turn causes the cow to eat less which leads to further issues. Freshly calved cows are also at risk of dehydration due to not drinking during the calving period. Rehydration therapy should always be considered in the treatment plans of sick cows. It is also essential to supplement nutrients and electrolytes to provide the best outcome for the cow.

Fortunately, there are various products on the market, vets and farmers can use these in different situations to provide the correct treatment. I have detailed the options below:

A happy cow is a well hydrated cow © Farm Advisory service

Freshly calved cows

Freshly calved cows are very vulnerable to multiple conditions post calving such as milk fever, ketosis and LDAs. Supplementing with calcium and a source of energy will help reduce these risks. Giving a freshly calved cow **1** sachet of **Selekt Fresh cow** in at least 20 litres of water (other products are available) within the first 6 hours of calving will help in a variety of ways. The active ingredient - calcium propionate - will supplement both calcium in the blood but also provides a source of energy (reducing the risk of ketosis). It also contains a small amount of magnesium which again helps calcium mobilisation in the body. As well as correcting any electrolyte abnormalities, giving the cow 20+ litres of water will maintain her feed intake and reduce the risk of LDAs and ketosis.

Some freshly calved dairy cows may also benefit from glycerol supplementation. Glycerol or propylene glycol are used as an energy source, so the cow doesn't have to utilise her own body fat (when this happens, she is at risk of ketosis).

Cows off their feed

Often when a cow is ill, going 'off her feed' is the first sign we see. If we can spot this early and intervene it is much easier to get her appetite back on track, which gives her the best chance of fighting off whatever the infection is. In this case, giving an **off-feed** sachet may help stimulate appetite as well as provide vital electrolytes. It also contains calcium propionate like fresh cow **HOWEVER** it contains a high proportion of potassium which should not be used in freshly calved cows.

It is important to use only **1 sachet of fresh cow on freshly calved cows** and only **1 sachet of off feed when cows are not eating** (**never** use the **2** together or give 2 sachets of the same product at the same time!)

Restore hydration!

Many of the products we use contain magnesium which the cow finds bitter and non-palatable; therefore, we usually have to stomach tube and pump the fluids into the rumen. However, **Selekt Restore ©** contains electrolytes and dextrose, this makes it sweet meaning the cow usually enjoys and will willingly drink from a bucket. This is a good option for your sick, dehydrated cows that are still willing to drink.

Mild dehydration	The cow is depressed The eye position in the socket is normal The fold of skin returns to a flat position on the neck in less than 5 seconds The cow's mouth feels drier than usual
Moderate dehydration	The cow is depressed The position of the eye in the socket is a little sunken The fold of skin takes 6-7 seconds to return to the flat position The cow's mouth feels dry and cold
Severe Dehydration	The cow is very depressed The position of the eye in the socket is very sunken The fold of skin takes at least 7 seconds to return to the flat position The cow's mouth feels dry and cold

Stages of dehydration- courtesy of Nimrod vet services

The weird and wonderful

Oral fluid therapy can be used in the majority of cases and usually we have a sachet for the job! If you notice a cow / calf has overindulged on a carbohydrate like barley or "cake" then they are prone to grain overload or bloat. This is caused by a rapid fermentation in the rumen resulting in increased gas production. This increased gas makes the rumen more acidic. Adding in an antacid will correct this effect if caught early enough.

I hope this discussion on fluid therapy has been beneficial. Do not underestimate the power of giving fluids to a sick cow - if she is drinking and eating well - she is well placed to stay healthy. If you would like to know more about this, then please feel free to ask!

Cause of dehydration	Mild dehydration	Moderate dehydration
Freshly-calved cow to reduce risk of hypocalcaemia and ketosis	One sachet of **SELEKT Fresh Cow 500** in 20 litres of warm water within 6 hours of calving.	
Acute mastitis, acute metritis, traumatic reticulitis and all other cases of dehydration not mentioned below	One sachet of **SELEKT Restore** in 20 litres of warm water	Two sachets of **SELEKT Restore** in 40 litres of warm water
Ketosis: recuperation from	One sachet of **SELEKT Restore** and one bottle of **SELEKT Glycerol Plus** in 20 litres of warm water	Two sachets of **SELEKT Restore** and one bottle of **SELEKT Glycerol Plus** in 40 litres of warm water
Loss of appetite without other signs of illness	One sachet of **SELEKT Off Feed** in 20 litres of warm water	One sachet of **SELEKT Off Feed** and one sachet of **SELEKT Restore** in 40 litres of warm water
Barley poisoning	One sachet of **SELEKT Antacid** in 20 litres of warm water	

Embryo Transfer

We are very excited to offer our new embryo transfer service. Embryo transfer can be used on repeat breeder cows which show signs of bulling and are cycling well, however do not hold when served. This is usually because the fertilised egg does not survive the first 7 days.

Embryo transfer aims to bypass the first 7 days and implant an embryo which is 6-8 days - therefore improving the chance of holding the pregnancy.

This can be done off natural heat detection (i.e., noticing when the cow is bulling) and also from synchronization protocols. To progress all, we need to know is the bulling date and if she is cycling normally (possible scanning her the day before the transfer to ensure everything is normal).

To find out more please feel free to contact Chris Warren, Will Balhatchet or phone the office.

All the best, Keir