

Reviva.

**The orange energy boost
for recovery after calving**

Farm-O-San Reviva



Keeping cows happy after calving



All the metabolic changes that occur around calving may lead to a serious drop in dry matter intake. So it stands to reason that a good start after calving is essential for keeping cows in good shape and for maintaining the performance of the herd.

Most important changes that occur during calving

Changes in fluid and electrolyte balance

Directly before and during calving, cows don't eat and drink, but they do lose water and electrolytes. This may make them listless, reducing their intake of dry matter.

Rapid increase in calcium demand

Colostrum and milk contain large quantities of calcium, so the amount of calcium a cow needs directly after calving increases dramatically. Their bodies try to meet this need by increasing the uptake of calcium from their diet and by releasing calcium from their bones. If they're not successful in this the cows can develop milk fever. What's more, even cows that don't show visible signs of milk fever can still have low calcium levels in their blood, which also reduces their dry matter intake.

Negative energy balance

At the start of lactation, most cows are in what's known as negative energy balance. They try to compensate for this by using up their body fat. This changes their metabolism, which may result in ketosis. So to avoid problems, it's important for the cows to increase their dry matter intake as soon as possible.

Restore nutrient balance after calving with Farm-O-San Reviva

Farm-O-San Reviva contains the electrolytes, calcium and energy a cow needs to quickly restore its nutrient balance after calving and to increase its blood calcium levels. Farm-O-San Reviva also stimulates dry matter intake after calving, which helps in maintaining good milk production and body condition.



Supported by scientific evidence



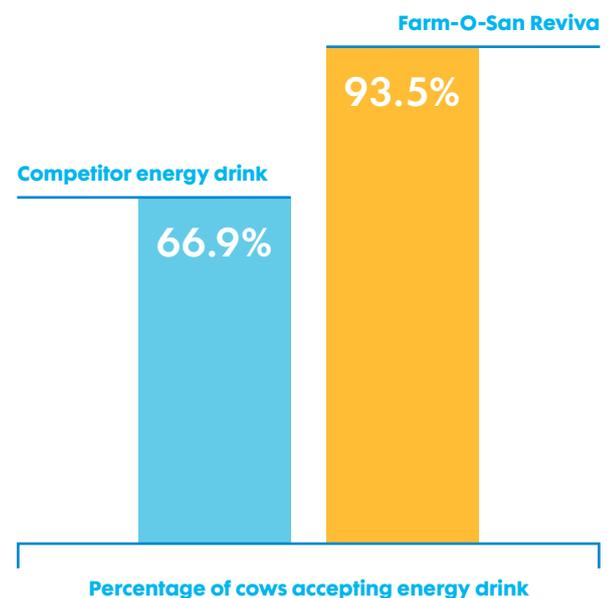
Several trials have proven that Farm-O-San Reviva provides cows with an excellent start to lactation after calving.

Trial 1 **Highly palatable and readily consumed**

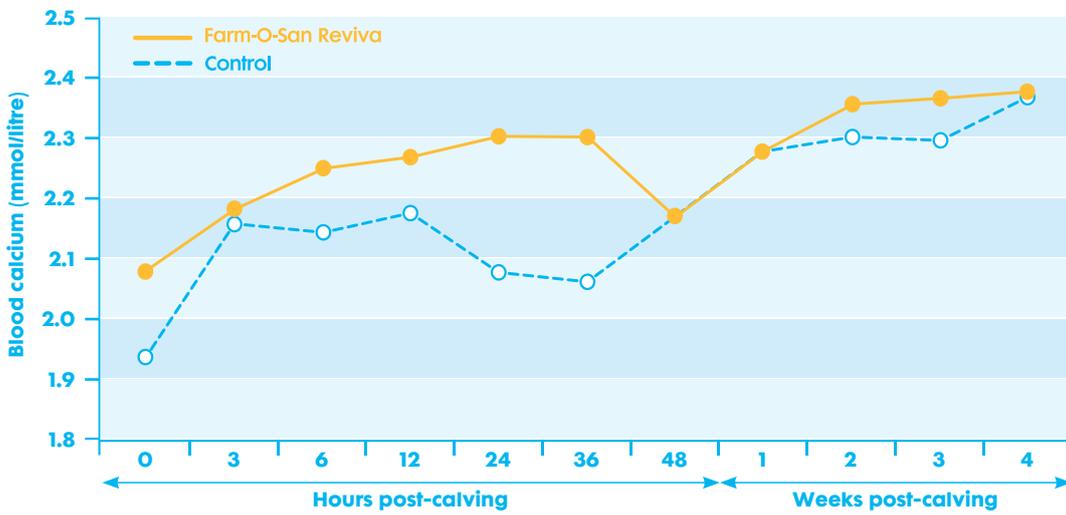
Farm-O-San Reviva is enriched with a flavouring agent, which makes it highly palatable to cattle. In practice, it's clear that cows love Farm-O-San Reviva, drinking it spontaneously and eagerly.

In a trial involving a total of 440 cows, 222 were offered Farm-O-San Reviva and 218 were offered a competitor product. As the graph shows, Farm-O-San Reviva was found to be extremely palatable.

Other trials carried out with Farm-O-San Reviva also showed a 100% spontaneous uptake.



Percentage of cows accepting Farm-O-San Reviva versus a competitor energy drink directly after calving.

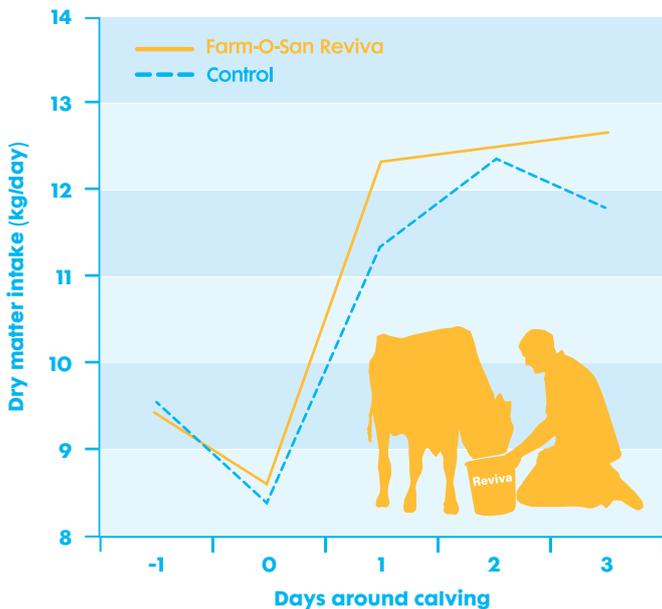


Evolution of blood calcium immediately post-calving through to week 4.

Trial 2 Higher blood calcium levels after calving

Two groups of 22 cows each were included in the trial. One group received 20 litres of Farm-O-San Reviva immediately after calving, the other group was offered 20 litres of lukewarm water. Blood calcium levels were measured regularly during the first 24 hours after calving and weekly in the first 4 weeks after calving.

Spontaneous uptake of Farm-O-San Reviva was 100%. Blood calcium levels were significantly higher in the group of animals treated with Farm-O-San Reviva during the first 48 hours after calving, which is the risk period for complications as a result of low blood calcium values.



Dry matter intake in cows receiving Farm-O-San Reviva (n=20) or controls having free access to drinking water (n=20).

Trial 3 Improved dry matter intake

Two groups of Holstein cows, each consisting of 20 animals, were studied. Directly following calving, each cow in the test group was given 20 litres of Farm-O-San Reviva, after which the cows had free access to drinking water. The 20 control animals only had free access to drinking water.

For each group, the individual feed intake (concentrate and roughage) was then measured before and after calving. There was an increase of about 1 kg of dry matter intake per day for the cows in the Farm-O-San Reviva group compared with those in the control group. Despite the relatively small number of cows in the trial, this difference approached statistical significance.

Conclusions

Farm-O-San Reviva is highly palatable to cows and is readily consumed after calving.

Blood calcium levels are significantly higher post-calving in cows given Farm-O-San Reviva compared with those given water only.

Dry matter intake is increased in cows given Farm-O-San Reviva compared with control cows which only had access to drinking water.

Post-calving rehydration has a big impact on recover



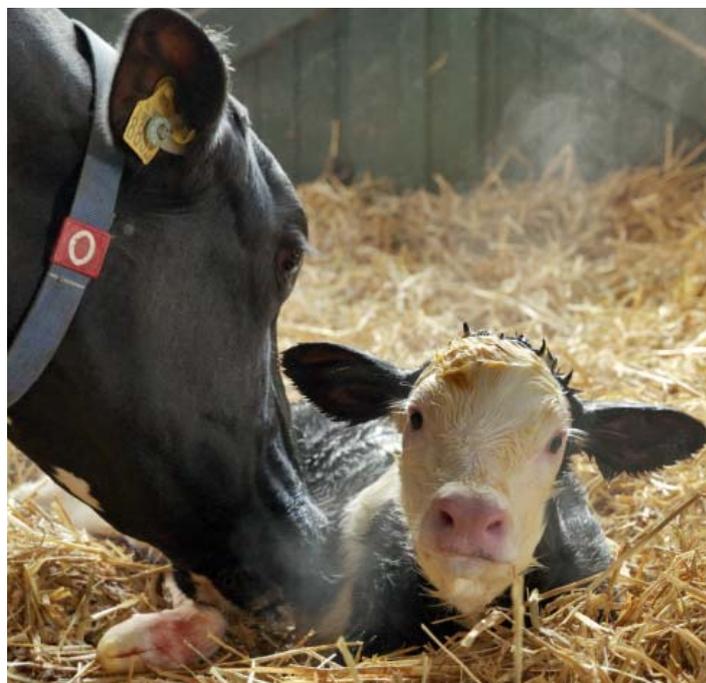
Helping cows to rehydrate quickly at calving is important. David Hurren from Borough Green Farm near Great Ayrton has no problems getting his cows settled into lactation, something that is vital with his robotic milking system.

"We need cows up and running soon after calving and milking well with a good appetite so we pay close attention to post-calving management," explains Mr Hurren who runs a herd of 95 all-year-round calving cows with his wife Helen and daughter Susan. "Rehydration, post-calving, is a key part of our routine."

The cows graze by day and are housed at night. Big bale silage is fed down the trough with compound available from four out-of-parlour points. The herd is milked through two Fullwood robots and yields average 8,500 litres.

Far off dry cows will graze or be fed silage and straw. From three weeks pre-calving they are housed on straw yards and fed silage and dry cow rolls.

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Immediately post-calving all cows and heifers receive a mineral drench and Farm-O-San Reviva, a rehydration supplement containing a balanced source of key electrolytes along with vitamins and rapidly available energy to give the cow a real boost.

According to Dr John Allen, Technical Director at Trouw Nutrition GB, calving is the most stressful time in a cow's life and how well we help her at this time will have a marked bearing on how well she performs, irrespective of how difficult the actual calving is.

"Post-calving rehydration is important for all cows due to a combination of two factors. The first is that cows will lose around 50 litres of fluids and salts when they calve, made up of blood and intra-uterine fluids. This has to be replaced. At the same time, cows reduce food and water intakes in the hours leading up to calving. With reduced intakes and increased losses, post-calving rehydration is essential.

"Anyone who has stood behind a calving cow knows the considerable fluid loss but the reduced intake factor is significant too. In addition to drinking, cows extract a lot of liquid from the diet. While all cows will need rehydration at the end of calving, the problem can be worse in cows which suffer a prolonged calving, mainly because they will have had lower intakes for a longer period."

Dr Allen explains that when a cow calves she loses both water and salts as the lost fluids will contain a significant amount of electrolytes, notably sodium, potassium and chloride which are essential for regulating fluid content in the body.

"It is normally not difficult to get cows to drink a lot in the two hours immediately post-calving provided the drink is palatable, but it is important to make sure they are drinking the best replacement for lost fluids. This means supplying electrolytes.

"As water contains no electrolytes it can't rehydrate cows as well as a product that supplies the necessary salts. The most effective way to revive cows is to use a specially formulated electrolyte solution such as Farm-O-San Reviva."

He says that as well as providing the right supplement it is important to use an isotonic drink as this means it will be balanced with the cow's blood stream. Some rehydration products are hypertonic which means they are a more concentrated source. He explains that while this may sound like a way to give the cow a boost, all that happens is that the cow expends energy excreting and re-balancing the excess electrolytes.

David Hurren continues: "We started using the supplement when we still milked through the parlour as our vet felt the cows needed a boost post-calving. We found cows were really enthusiastic to drink it and were generally more vigorous which meant they were eating quicker which is a good thing.

"We have kept using Farm-O-San Reviva with the robots as we need cows active and settled into the herd and making visits to the robots as soon as possible. I see the cost of rehydration as an investment for the next lactation that will be more than covered by cows settling into lactation more quickly," Mr Hurren comments.

"Ensuring cows are rehydrated post-calving is a key part of our routine."

David Hurren
Borough Green Farm, Great Ayrton

General information about Farm-O-San Reviva

Type of product: Complementary feed for dairy cows
Packaging: Pouch containing 1 kg, or buckets containing 10 or 20 kg
Shelf life: 12 months
Storage conditions: Store in a cool, dark and dry place in sealed packaging

Composition

Dextrose, Whey powder, Calcium carbonate, Sodium chloride, Wheat, Sodium bicarbonate, Whey protein, Cocos oil, Palm oil, Monopotassium phosphate, Sunflower oil.

Directions for use

Read the information on the product label for full instructions on product usage. Mix at the rate of 50 g per litre of water. Mix 1 kg of Farm-O-San Reviva powder with 10 litres of hot water (40-45°C). The solution will turn orange. Once dissolved, add 10 litres of cold water to achieve a drinking temperature around 25-30°C. Provide 20 litres of the lukewarm Farm-O-San Reviva solution to the cow once within 30 minutes after calving and before it is given free access to water. A further drink of Reviva may be offered after 24 hours if the cow is still weak or appetite is poor. Due to its higher content of vitamin D3 compared to complete feeds, Farm-O-San Reviva cannot be fed at more than 1.5 kg per cow per day.



Other ruminant products from Farm-O-San

COW

Pro-Keto

A dietetic feed for high performing dairy cows based on propylene glycol and glycerine to reduce the risk of ketosis.

Pro-Keto Dry

A dietetic complementary feed for high performing dairy cows for the reduction of the risk of ketosis. It has essential ingredients to contribute to a good start to lactation.

CALF

Pulmosure

A complementary feed for calves and older cattle that helps breathing and clearing of airways. Also contains vitamin E and selenium.

Rediar

A dietetic feed for calves, developed to stabilize the water and electrolyte balance in case of digestive disorders such as diarrhoea.

PowerFit

A complementary feed for stabilizing water and electrolyte balance. Suitable for use in calves in need of rehydration as a result of high temperatures and/or stressful situations.

SHEEP

Ewe Keto

A dietetic feed for in-lamb ewes, based on propylene glycol and glycerine. It supports the in-lamb ewe with glycogen energy to reduce the risk of pregnancy ketosis.

Pro-Keto Dry

A dietetic complementary feed for high performing ewes reducing the risk of ketosis. It contributes to a good start of lactation.

Reviva Ewe

An easily digestible, highly palatable energy drink for freshly lambed ewes, containing dextrose as one of the energy sources.

Kubilam

A colostrum replacer for newborn lambs and a safe alternative to natural colostrum. It contributes to the development and resistance of the lamb immediately after birth.

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