

Reviva.

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

Farm-O-San Reviva



Keeping cows healthy 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 good 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 amounts 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 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 later in lactation. 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 all 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 of lactation after calving.

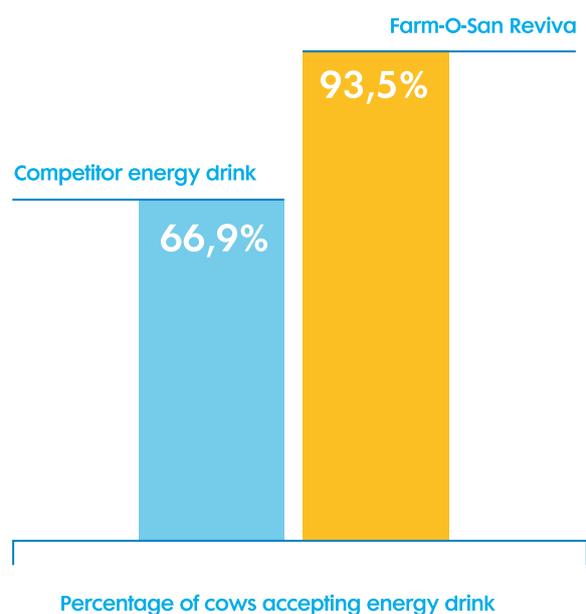
Trial 1

Not only healthy but tasty too

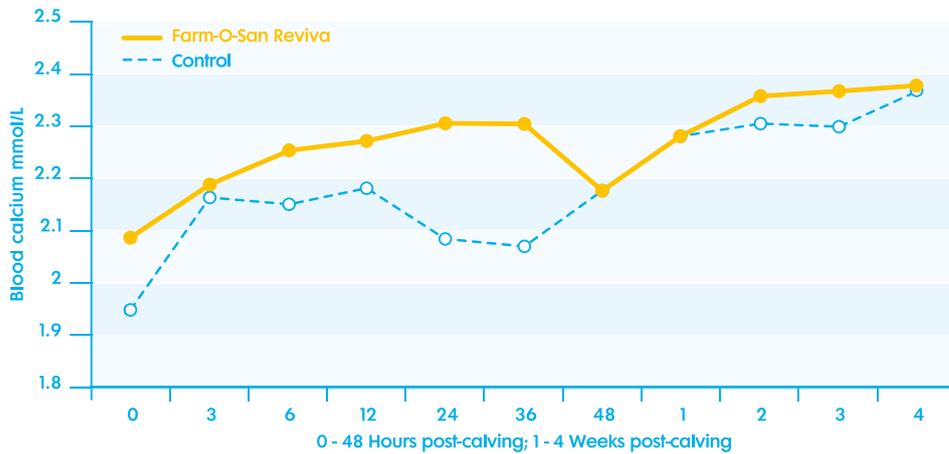
Farm-O-San Reviva is enriched with a flavoring agent, which makes it highly palatable to cattle. In practice, it's clear that cows love Farm-O-San Reviva, drinking it spontaneously and eagerly!

In a trial carried out in Germany, out of a total of 440 cows, 222 were offered Farm-O-San Reviva, 218 were offered a competitor product. As the graph here 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 Trial to study blood calcium levels after calving carried out in the Netherlands.

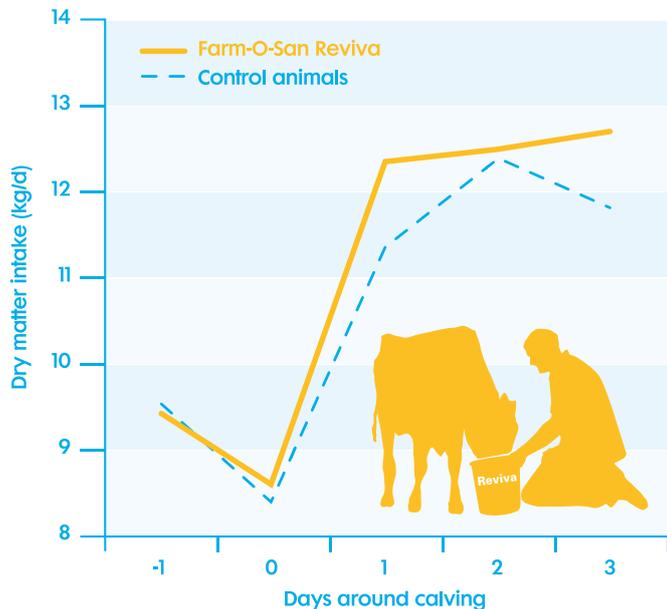
Material and methods

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.

Results

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 Dry matter uptake, carried out in the Netherlands

A trial in the Netherlands studied two groups of Holstein cows, each consisting of 20 animals.

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.

Conclusion

The changes that occur in the body of the cow around calving put cattle at risk, so increasing the dry matter intake after calving is crucial. Farm-O-San Reviva is designed to restore the nutrient balance. Cows love to get it, farmers love to give it!

Post-calving rehydration has big impact



David Hurren,
Borough Green Farm
Great Ayrton

“Minimising the impact of post-calving rehydration is a key part of our routine.”

Helping cows to quickly overcome dehydration 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 David Hurren who runs a herd of 95 all year calving cows with his wife Helen and daughter Susan. “Minimising the impact of post-calving rehydration 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.

Immediate 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 Jan Mica, Technical Manager Animal Health Products at Trouw Nutrition, 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 dehydration affects all cows and is 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, they reduce food and water intakes in the hours leading up to calving. With reduced intakes and increased losses, post-calving dehydration is inevitable.

“Anyone who has stood behind a calving cow knows the considerable fluid loss but the reduced intake factor is significant.

In addition to drinking, cows extract a lot of liquid from the diet. While all cows will be dehydrated at the end of calving, the problem can be worse in cows which suffer a prolonged calving, mainly as they will have had lower intakes for a longer period.”

Jan Mica 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 and 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 have found cows are 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 in the next lactation that will be more than covered by cows settling into lactation more quickly,” Mr Hurren comments.

General information about Farm-O-San Reviva

Type of product: Complementary feed for dairy cows
Packaging: Pouch containing 1 kg, or bucket containing 7 or 15 kg
Shelf life: 24 months
Storage conditions: Store in a cool, dark and dry place in sealed packaging

Directions for use

Read the instructions on the product label for directions on product usage. 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. This lukewarm solution of Farm-O-San Reviva has to be given to the cow once, immediately after calving and before it is given free access to water. Due to its higher content of vitamin D3 compared with complete feeds, each dairy cow should not be fed more than 1.5 kg of Farm-O-San Reviva per day.

Composition

Per kg of product:

Dextrose:	31.5%
Sodium bicarbonate:	5.0%
Calcium:	4.4%
Sodium chloride:	7.5%
Vitamin A:	840 000 IU
Vitamin D3:	18 000 IU
Vitamin E:	2 700 IU
Iron:	200 mg
Manganese:	190 mg
Zinc:	500 mg
Selenium:	1.4 mg
<i>Saccharomyces cerevisiae</i> :	0.6 mg
B-Carotene:	200 mg



Other ruminant products from Farm-O-San



trouwnutrition.ie

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