

## Calf Gut Health

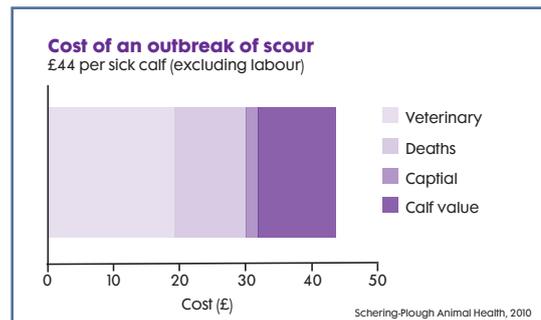
### Industry Problem

1 in 7 dairy calves and 1 in 13 beef calves die in the rearing phase over the first 6 months of life (NADIS).

Scouring is a common problem that causes financial losses due to medications, reduced daily live weights and extended rearing periods. Almost 50% of calf deaths during the first few weeks are due to scouring.

The primary causes of diarrhoea on farm are from

- Infectious agents; bacteria, viruses and protozoa
- Improper nutrition & management



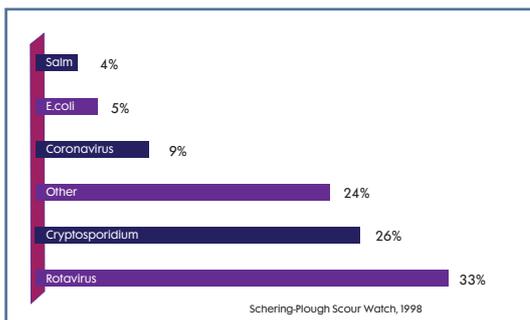
### The role of a probiotic

It is widely recognised that maintaining the gut flora of an animal's gastrointestinal (GI) tract increases the health status and the ability to metabolise feed more readily. Probiotics are commonly used within animal feed to enhance gut health and can be used in antibiotic reduction programmes.

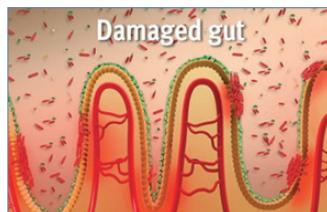
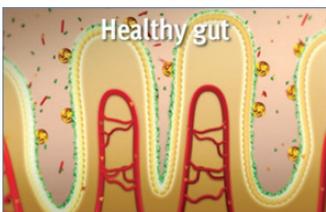
There are 3 different types of probiotics;

- Lactic acid producing bacteria
- Non-lactic acid
- Non-pathogenic yeast

Lactic acid producing bacteria (LAB) are commonly used as antimicrobials and are effective against intestinal pathogens by competing for cell surface sites on the villi. The lactic acid bacteria will then increase in number, producing more beneficial bacteria that maintain a positive gut flora and help with the breakdown of difficult substrates. This will increase feed efficiencies.



Scouring can damage the gut lining (villi) of the calves preventing the efficient uptake of feed which can prevent daily live weight gains and production targets to be achieved.



### Current solution

Good quality colostrum, nutrition, management and disease control improve the calves' defences against potential health issues and associated scouring.

Many products on the market reduce dehydration and supplement glucose to rearing calves that get scours. Dietetics can reduce the severity of scouring. However, they do not stop the cost incurred by the damage to the gut and the increase in money spent on rearing to get the calf up to weight.

## Dietetic feed for calves

Farm-O-San has a LAB probiotic in Rediar. Rediar is a dietetic feed developed to stabilise the water and electrolyte balance to support the physiological digestion. Active ingredients treat the signs of dehydration, increasing essential vitamins; kick-starting growth and appetite with energy sources, whilst the LAB probiotic nurtures a positive gut microflora and reduces the associated animal maintenance cost from poor performers.

## A case study

Looking to bring heifers into his 200 head herd at around 2 1/4 years old, Andrew Furnival who farms near Loggerheads, Shropshire looks to exploit early calf growth and wean calves at 100kg. Heifer calves are taken off the cow within 12 hours and as soon as they have had sufficient colostrum. They are then fed whole milk for the first week.

Calves are initially kept in individual pens but some larger pens for up to eight calves will be used depending on the number of calves being reared from the all year round calving herd. All pens are disinfected between calves. Calves then move onto milk replacer. They are bucket fed twice a day with a target intake of 2.5 litres. Solid feed is introduced from two weeks old and they have access to adlib barley straw. Calves are typically weaned at 12 weeks old but Andrew prefers they make the weight rather than weaning based solely on age.

Scours are not a major problem but when animals are affected, his policy is to get in quickly and nip it in the bud. "We tend to get white scours and with a bucket fed system you can identify calves where there might be a problem because you can spot as soon as they go off their feed."

Any scouring calves are fed Rediar, a dietetic supplement from Farm-O-San. It is formulated to stabilise water and electrolyte balance in scouring calves to help reduce the economic consequences of scours. In the intestine, it forms a gel which slows the rate of gut passage while a probiotic helps restore the bacterial balance in the intestine. "As soon as we spot a case we take the calf off milk altogether and feed Rediar mixed with water for two days before moving onto a half milk, half Rediar approach provided there are signs that the scour is clearing up. I don't like to leave them off milk for too long as I want to avoid a growth rate check."



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