International Dairy Topics

Dairyhealth BYTES

Your own reference source on dairy health

Number: 79

Rotavirus II

Treatment

Treatment for rotavirus is similar to that used for other enteric conditions in calves. However, there are some differences, including:

- Because of the pathological changes in the cells of the intestinal villi, the efficiency of absorption of electrolytes and energy sources will be reduced. Even so, oral presentation of electrolytes is still extremely worthwhile.

- Maldigestion and malabsorption will influence the duration of the diarrhoea and impact on the digestibility of milk and milk replacers. Once diarrhoea is seen, the damage to the intestinal wall has occurred and the intestine then needs time and supportive care if healing is to occur.

- If all you give the calf is electrolytes it will be adequately hydrated, but in a week or so it could starve to death.

- The more milk you put into a calf, the more comes out the back end. However, this need not necessarily be bad news because nutrient uptake will be occurring.

- Maturation of the immature villus replacement cells from the crypts allows the diseased intestinal tract to return to normal within seven days.

Control

Rotavirus is ubiquitous in cattle populations and, because of this, management procedures that reduce the level of its exposure to neonatal calves are the central focus of a prevention strategy. This includes cleaning maternity pens thoroughly after each time they are used, immediately removing the calf from the dam and thus removing exposure to her faeces, placing calves in individual clean hutches on clean ground and feeding calves from their own bottle or bucket rather than from communal feeders to reduce viral spread.

Faeces from an infected calf contain hundreds of millions of rotaviruses per gram so contamination of inanimate objects that can transfer the virus, such as workers' boots and overalls, has to be managed and avoided.

Vaccination to contain rotavirus infection in calves, be it in dry cows or orally in newborn calves, has its advocates and critics and its efficacy in the field has been questioned.

Rotavirus can remain viable in faecal matter for six months and is relatively resistant to some disinfectants. Therefore, any cleaning process must concentrate on the physical removal of faecal material. Disinfectant contact times must be respected.