

# EXAGEN®

## For best Results:

### Prevention of Scours:

EXAGEN is recommended either as a preventative or therapeutic aid in the recovery of calves at risk of scours associated with cryptosporidiosis.

- Start as soon as possible after birth.
- **Use twice daily (12.5g per dose)** for the first 10 –12 days of the calf's life (for a minimum of 3 days).
- EXAGEN is recommended for the addition to colostrum, milk, or milk replacers for prevention.
- Treat all calves under 10 - 12 days of life at risk of cryptosporidial scours.

### The Benefits of EXAGEN as a preventative (also refer to Benefits of Therapy):

- Reduced risk of cryptosporidial scours developing.
- Reduced environmental contamination.
- **Use only isotonic electrolytes** (e.g ENERVADE) for treatment of any scouring calves.



Available only from  
veterinarians

### Pack sizes:

5kg Bucket

20 kg Bag

No withholding period

No prescription required

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# EXAGEN®

## Therapy for Scours:

EXAGEN may also be added to an **isotonic electrolyte**.

**ENERVADE is specifically recommended as it is gentle on the damaged gut lining at the same time is a fast and aggressive electrolyte for fluid volume replacement.**

KRYPTADE is a pre-formulated electrolyte (already containing beta-cyclodextrin) specifically designed for rehydrating calves with cryptosporidiosis. Optional if scouring calves are on EXAGEN.

## The Benefits of EXAGEN as a therapy:

Calves treated with EXAGEN as directed and subsequently developing scours associated with cryptosporidiosis will

- Have reduced period of treatment.
- Have reduced total amount of electrolytes for treatment.
- Maintain their appetite with earlier return to full milk feeds.
- Continue to have their milk feeds.
- Respond to isotonic electrolyte treatment.
- Have a faster recovery, being brighter, more alert earlier.
- Reduced labour in calf unit, reduced hospitalised calves.

Full details: **The Crypto Control Programme**

[www.pvd.co.nz](http://www.pvd.co.nz)

KRYPTADE, ENERVADE, and EXAGEN are the registered trade names of Professional Veterinary Distributors Limited.

KRYPTADE, ENERVADE and EXAGEN are registered pursuant to the ACVM Act 1997, Nos. A9621, A9410 & A9536. See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions.

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# EXAGEN®

Active ingredient: Betacyclodextrin 800g/kg

**In-Feed (milk) additive  
Targeting Crypto Scours**



**A revolutionary breakthrough solution  
for calves at risk of cryptosporidial scours.**

**The first and only product in New Zealand that  
effectively targets the Cryptosporidial oocyst in the  
gut — safely**

- **Reduces the severity of infection**
- **Reduces the risk of new infections of crypto scours**

# Cryptosporidiosis

In New Zealand cryptosporidiosis has been widely recognised as the second most important cause of infectious calf scours for at least 20 years. This is also the case overseas.

Today it is becoming more important as Rotavirus scours is being more successfully managed with vaccination.

For the past 30 years treatment options were entirely reliant on slow recovery with 5–7 days where milk was avoided by the calf. The only option was to maintain fluid balance with the use of electrolytes. This is still the case in many overseas countries.

Crypto's special lifecycle feature is that once it infects a calf the oocyst recycles in the gut lining. Targeting the oocyst shortens the period of infection cycling in the gut (and the scouring).

In 2006, and 2007 we revolutionised calf management for cryptosporidial scours with two new products

KRYPTADE (2006) for treatment of calf scours with rehydration

EXAGEN (2007) as a preventative treatment of calves in calf units with known cryptosporidial risks already present.

Both these products offer significant and safe advances over any other calf treatment for cryptosporidiosis. Both products are based on the carbohydrate beta-cyclodextrin. They are recognised as superior to other treatment options. They are unique in targeting the oocyst stage—in the gut lining and ingested by the calf.

## Safety and Health Benefits with Beta-cyclodextrin

- Beta-cyclodextrin is a carbohydrate. It has a wide safety margin.
- It is non-accumulative and acts only in the intestine.
- It is degraded in the lower intestine by fermentation by bacteria. It therefore adds to the energy available for uptake of fluids from the large intestine. It therefore also acts as a prebiotic carbohydrate providing beneficial health outcomes.

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## Trial Data with Beta-cyclodextrin

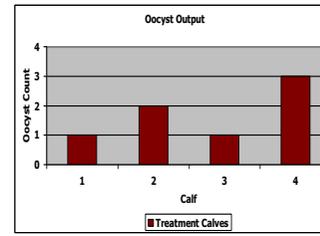
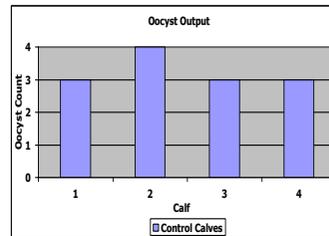
Control and Treatment groups were of 4 calves in each group. Measurements were made daily of the presence or absence of diarrhoea, and the numbers of oocysts each calf produced.

### Reduces Cryptosporidiosis Scours in Calves

Calves treated twice daily with beta-cyclodextrin for 3 days showed dramatic benefits with a lower risk of cryptosporidial scours and reduced output of infective oocysts.

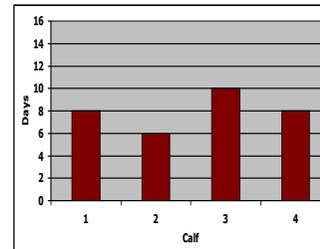
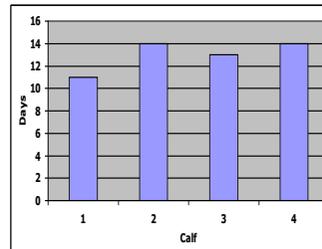
#### 1. Reduces the Peak Oocyst output

*Oocysts counts (the infective lifestage) are very high when calves start scouring, contaminating the calf pen area. All reductions in oocysts assist in reducing the risk of new infections.*



#### 2. Reduces the Period of Excretion of Oocysts

*The excretion of oocysts in untreated calves frequently occurs prior to the appearance of diarrhoea. The calf pen therefore quickly becomes contaminated and the success of hygiene can be overwhelmed. Use of EXAGEN will markedly reduce this effect making containment of the outbreak easier.*



#### 3. Reduces the Days of Diarrhoea

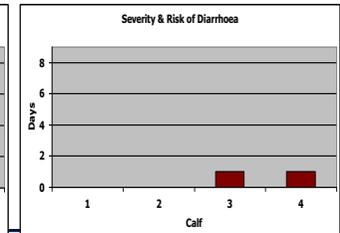
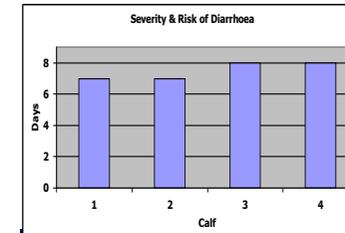
##### Reduces the Severity and Risk of developing scours

*A lower number of calves progress to developing signs of diarrhoea, even though they are infected and excreting lower numbers/oocysts.*

*Calves developing diarrhoea have markedly reduced number of days of scours, as shown by the two calves on the right graph.*

*Reference: Castro-Hermida et al 2002*

***Scouring calves previously treated with EXAGEN will only respond more quickly to isotonic rehydration - ENERVADE - gentle on the gut - treatment.***



#### The Real Practical and Financial Benefits include:

- Calves have less risk of developing diarrhoea even when infected with cryptosporidial infections (these are subclinical –non-scouring — Infections).
- Calves not developing diarrhoea do not require electrolyte treatment, and are at less risk of developing secondary bacterial infections.
- Calf Caregivers do not get overwhelmed with slow responding sick calves. Scouring calves respond faster to isotonic electrolytes meaning caring for sick calves is easier.
- Savings of time, labour, and costs of electrolytes in treatment of scouring calves.