

BOVILIS[®]
Cryptium[®]



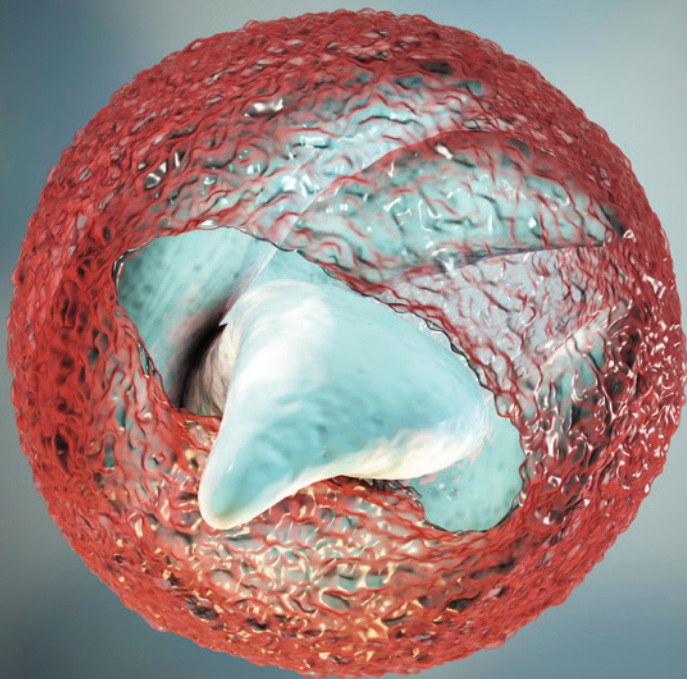
THIS
CHANGES
EVERYTHING
FOR CRYPTOSPORIDIOSIS



Cryptosporidiosis

Disease prevalence & impact

- » *Cryptosporidium parvum* is a very common and challenging issue plaguing today's farms.
- » Neonatal Calf Diarrhoea (NCD) is the leading cause of sickness and death in newborn calves worldwide. Cryptosporidiosis and rotavirus are the two most common causes of diarrhoea in young calves.¹



**Highly
contagious and
prevalent
parasite.**

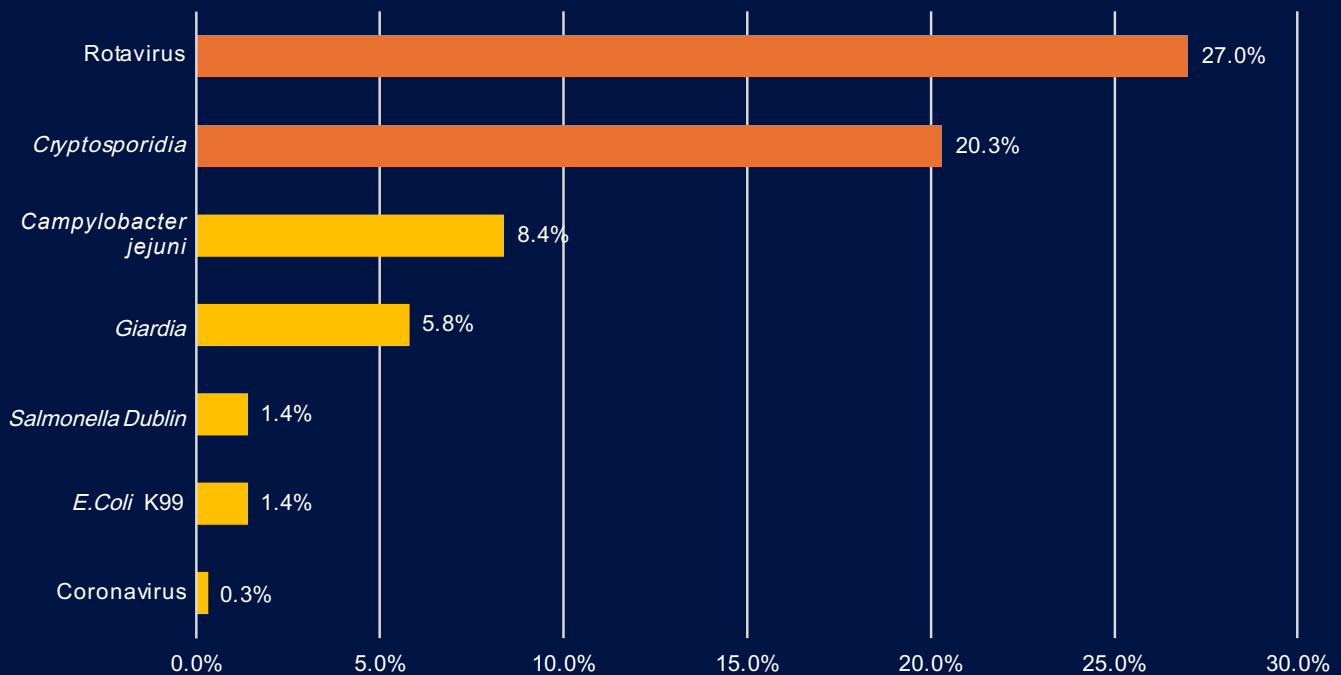
**Seen as
the most
challenging
cause of scour
by farmers.²**

Cryptosporidium

A common enemy in the first month of life

- » Calf scour is the most common cause of death in calves less than 1 month old.¹
- » *C. parvum*, rotavirus, *E. coli* and coronavirus are four of the major causes of calf scour.¹

Prevalence of causes of NCD in the first month of life



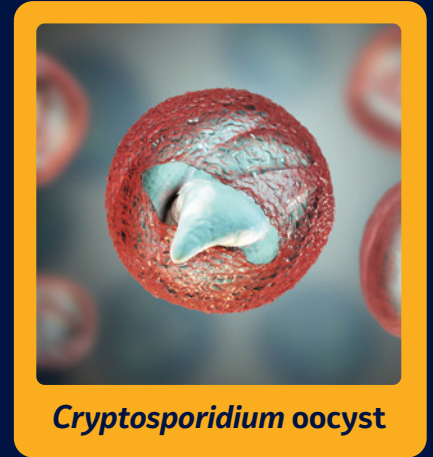
Relative frequency of enteropathogenic agents identified in calf faecal samples (neonatal enteritis package) tested in 2022. Percentage of positive results. Total samples examined varies with the agent.¹

Cryptosporidium parvum

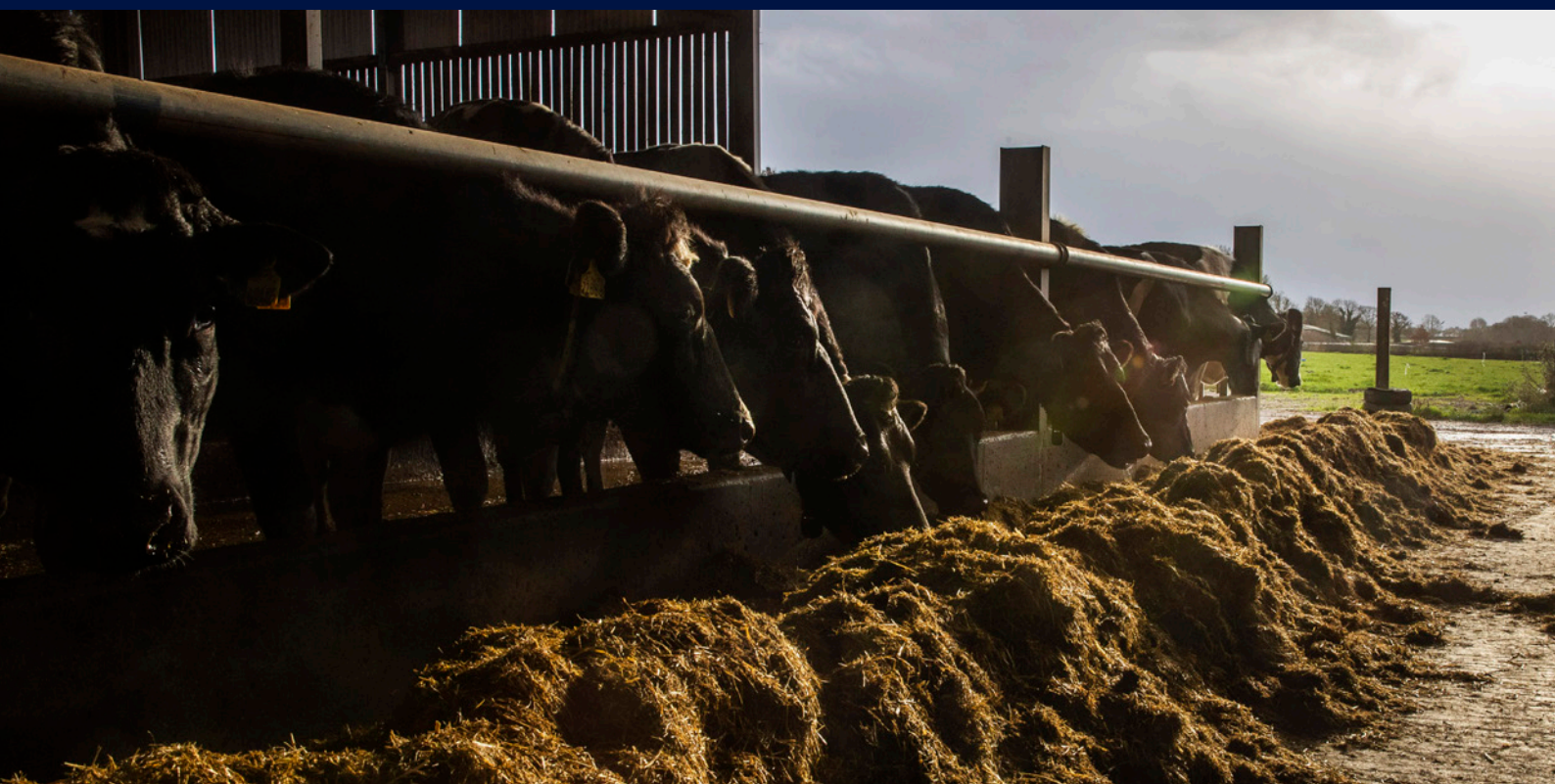
Life cycle & infection rate

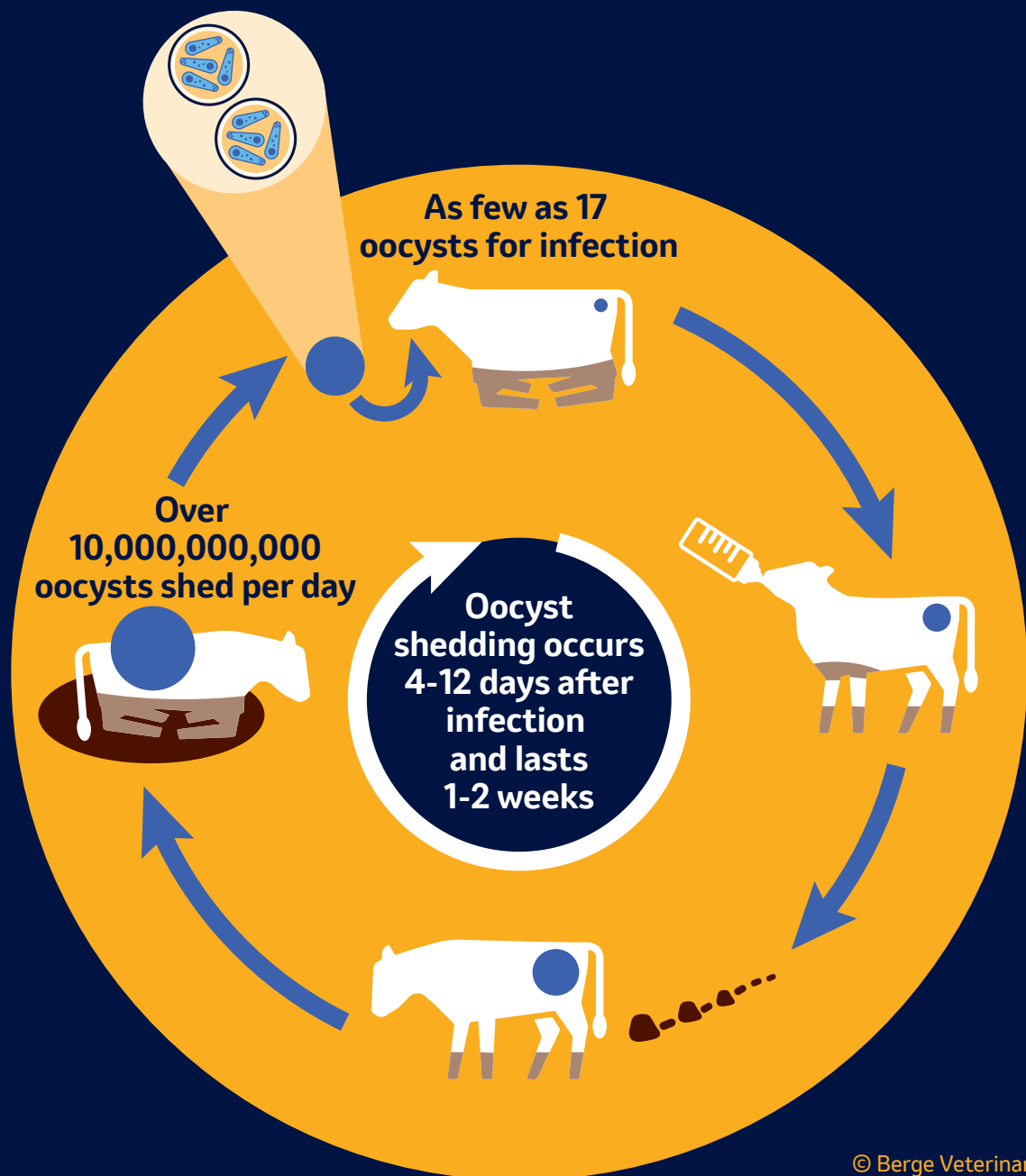
What is an oocyst?

A *Cryptosporidium* oocyst is a small single cell organism found in faeces.



- » It takes just 17 oocysts to cause an infection in a calf.⁶
- » For context, an infection calf, at 6 days of age can shed BILLIONS of oocysts per day.⁷
- » These oocysts can survive for months in the environment and are quite resilient to disinfection.⁸





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Economic Impact

Effect on growth, treatment & labour

» Calves that experienced severe cryptosporidiosis show a significantly reduced live weight gain compared to calves with no clinical signs.⁹

BEEF CALVES

- 34 kg

Average difference in weight gain at 6 months⁹

↓
€161
LOSS

in direct sales per beef calf⁹

DAIRY CALVES

€35.98

Reduced average growth rate of 0.1 kg/day for 180 days¹⁰

€22.69

Mortality rate of 4% due to scours¹⁰

€8.71

Treatment costs, 30% of calves receive treatment¹⁰

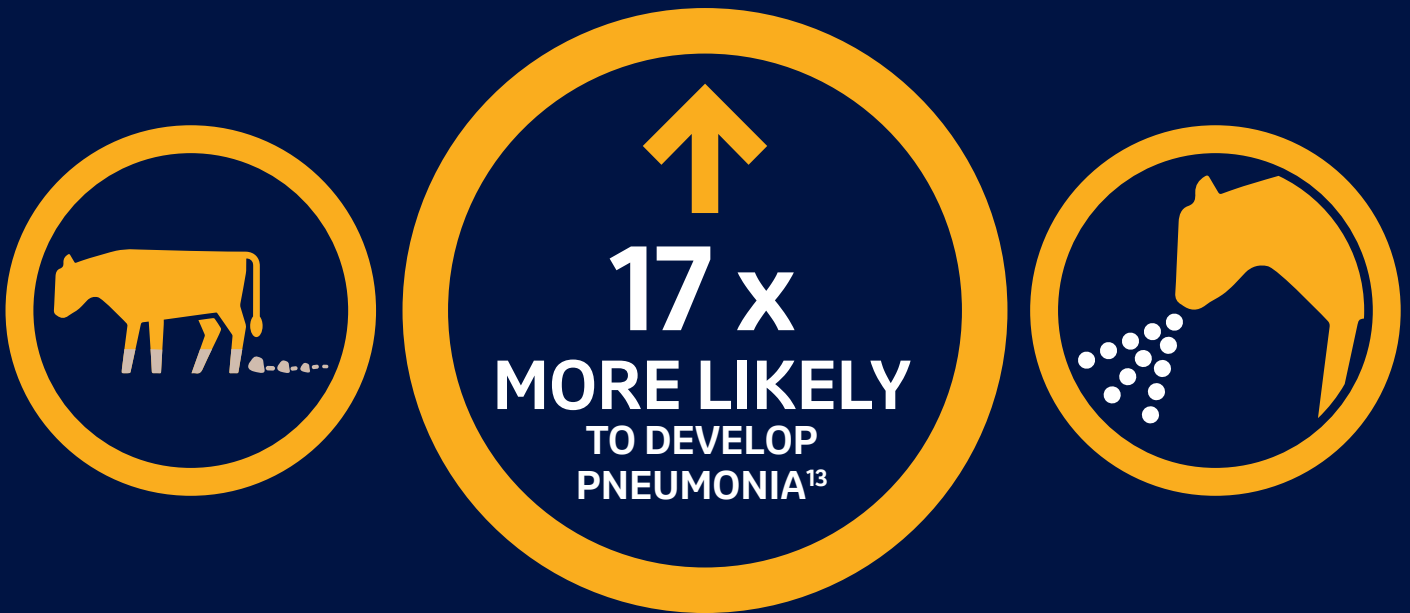
↓
€67.38
COST

per calf

Economic Impact

Lasting effects of calf scour

» Studies suggest calf diarrhoea can increase the calf's chances of experiencing Bovine Respiratory Disease (BRD) in the future.^{11,12}



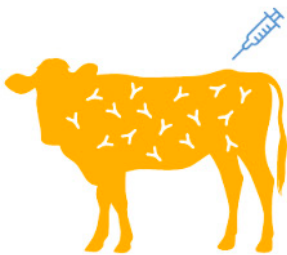
➤ **Bovilis® Cryptium®**
can be administered
at the same time as
Bovilis® Rotavec® Corona,
at different sites.



These 2 vaccines together provide protection against **4 of the most common¹** causes of Neonatal Calf Diarrhoea.^{1,4,5}

Colostrum Feeding

➤ The protection of calves depends on adequate intake of good quality colostrum and transition milk from vaccinated cows.



➤ It is recommended that all calves are fed **colostrum and transition milk during the first 5 days of life.**

➤ Studies have shown that supplemental colostrum feeding during the first 2 weeks reduces diarrhoeal disease and improves average daily gain (up to 270g/day during the first 28 days of life).¹⁴

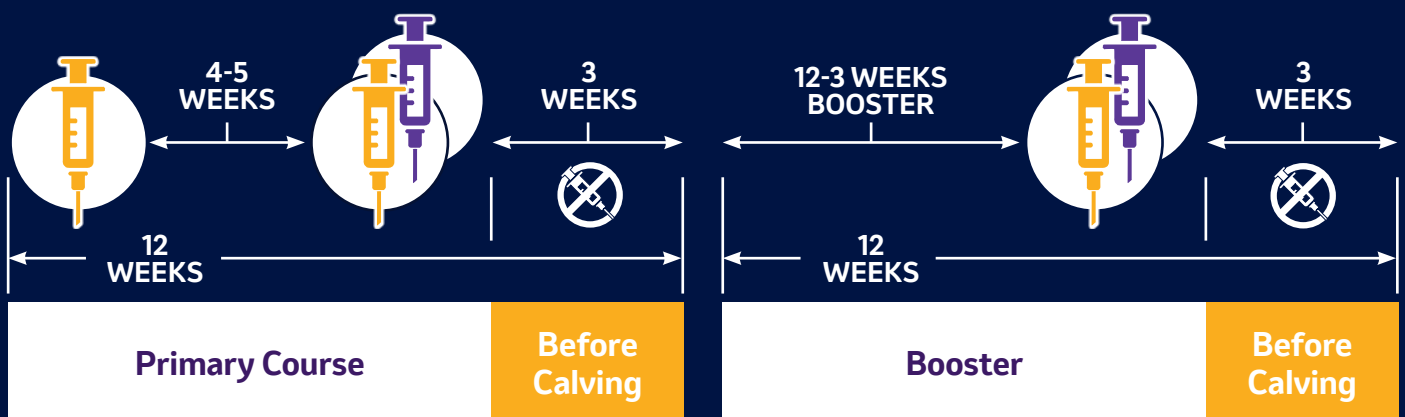


CONVENIENT & FLEXIBLE ADMINISTRATION

➤ Bovilis® Cryptium® and Bovilis® Rotavec® Corona together provide protection against 4 of the most common¹ causes of neonatal calf diarrhoea^{6,7,10}:

- *C. parvum*
- Rotavirus
- *E. coli*
- Coronavirus

➤ Bovilis® Cryptium® can be administered at the same time as Bovilis® Rotavec® Corona, at different vaccination sites.



**BOVILIS®
Cryptium®**



- Route: Subcutaneous (SC)
- Dose: 2ml
- Primary Course: 2 doses administered 4-5 weeks apart with the course completed 12-3 weeks before calving.
- Booster: Single dose administered 12-3 weeks before each subsequent calving

**BOVILIS®
Rotavec® Corona**



- Route: Intramuscular (IM)
- Dose: 2ml
- Primary Course: Single dose administered 12-3 before calving
- Booster: Single dose administered 12-3 weeks before each subsequent calving

Bovilis® Rotavec® Corona can be given at the same time as the first or second vaccination of Bovilis® Cryptium®



COLOSTRUM MANAGEMENT



- Calves are born with little or no immunity to the bugs to which they are exposed in the first weeks of life.
- The protection of calves against disease in the early weeks of life depends on adequate ingestion of good quality colostrum and transition milk.
- This ensures that the calf receives critical antibodies, including those from vaccination with Bovilis® Cryptium® and Bovilis® Rotavec® Corona, through the colostrum and transition milk.



Follow the 1, 2, 3 Rule of Colostrum Management



Colostrum from
the **1st milking**



Feed the calf
within
2 hours of birth



Feed at least **3L of colostrum**
(Or 10% of body weight)

Colostrum quality decreases every hour after calving and the ability of the calf to absorb antibodies from colostrum also decreases over this time.



Measuring Colostrum Quality

- It is important to test colostrum to ensure it is optimal quality to feed to calves.
- Feeding poor quality colostrum may result in failure of passive transfer.**
- A sample of colostrum can be checked by using a Brix refractometer.

Good quality colostrum:
Brix refractometer: >22%





Colostrum Collection and Storage



Contamination of colostrum with faecal matter or other material can result in bacteria multiplying in the colostrum. This can affect quality and result in failure of passive transfer to the calf.

Top Tips:

- Collect colostrum using clean equipment.
- Clean and disinfect collecting and feeding equipment after each use.
- If storing colostrum, do so in a clean, covered and sealed container.
- Avoid pooling colostrum as this may lower quality and increase the risk of Johnes disease transmission.
- Allow colostrum to cool before storing in a fridge or freezer.
- Use warm (not boiling) water to thaw colostrum and never use a microwave for this purpose.

Storage of Colostrum

Fridge	Freezer
Store between 2°C to 5°C	Store between -18°C to -25°C
Store & use within 24 hours	Store & use within 12 months

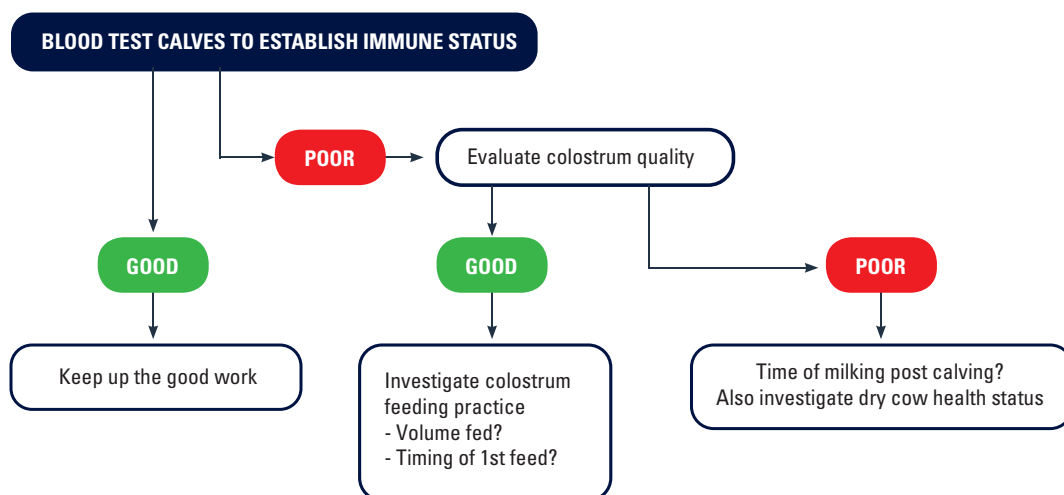


Monitoring Passive Transfer

Colostrum management can be monitored in conjunction with your vet by sampling calves to assess passive transfer.

When sampling a batch of calves, the following should be considered:

- Take a representative number (>12 calves).
- From healthy calves aged 1-7 days of age.



Flow chart to aid investigation of colostrum management with your vet.

BOVILIS[®] Cryptium[®]

THIS CHANGES EVERYTHING



Please scan for further
information



FOR MORE INFORMATION, CONTACT YOUR VET TODAY

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Bovilis[®] Cryptium[®] contains inactivated *Cryptosporidium parvum* Gp40 antigen. Bovilis[®] Rotavec[®] Corona contains inactivated Rotavirus and Coronavirus and *E. coli* K99 F5 and F41 antigens. Read the product data sheets for more information.

*The calves were monitored twice daily for diarrhoea and general health using an adapted scoring system from the University of Wisconsin Madison.

Withdrawal periods: Zero days. Legal Categories: RO POM NI POM-V

Use medicines responsibly

For further information see SPC, contact prescriber or MSD Animal Health, Red Oak North, South County Business Park, Leopardstown, Dublin 18, Ireland. Tel: +353(0)1 2970220. E-Mail: vet-support.ie@msd.com
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