

Dairy News

SEPTEMBER 2021 INSIDE THIS ISSUE

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# Exciting results from a local RVC trial on heifer synchrony

Farmers synchronising heifers with the Co-Synch program have tighter calving patterns and superior reproductive performance and profitability.

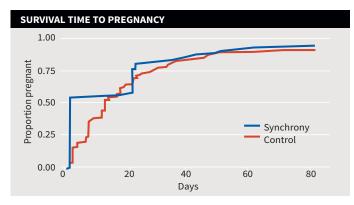
### Why synchronise heifers?



### **Superior performance**

A large-scale, NZ 2-year research study confirmed that heifers synchronised with the Co-Synch program in their first mating had fewer empty heifers and earlier conception.

The heifers will be monitored through 2021 calving and mating periods to determine any effect of synchrony on 6 week in-calf rate and other reproductive benefits.



A separate NZ case study demonstrated heifers that were synchronised in their first mating period had a tight calving spread, and better reproductive outcomes during the next mating period as first-lactation cows.

## Superior profitability

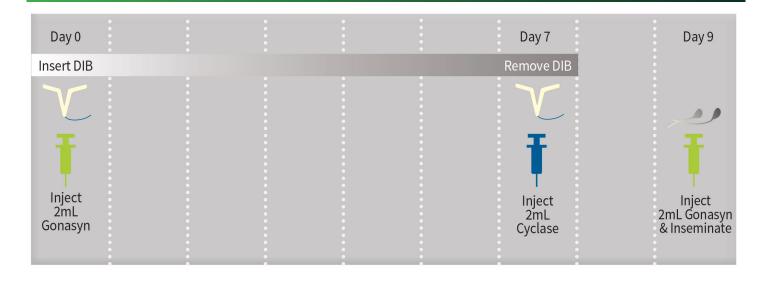
Heifers synchronised with the superior Co-Synch program will result in an extra \$55 profit based on data from the first year of the study.







## **DIB Co-Synch program timer**



"Having heifers on the Co-Synch Program, means I know when they are going to calve so I can plan and manage accordingly. That is the main benefit to me."

**Arjen Schouten** Farm owner, Canterbury





"It is simple to use the Heifer Co-Synch Program. The benefits of extra days in milk and longer time between calving and mating is excellent."

**William Gard** Claxby Farms, Canterbury

www.agrihealth.co.nz AgriHealth







# TURBC<sup>®</sup>/N/T/AL

#### A world first anthelmintic-anticoccidial combination for cattle, containing eprinomectin, levamisole and diclazuril with selenium and cobalt.

Turbo Initial is an oral drench to be used as the first treatment in the Turbo parasite control programme. It is designed for the transition period after a calf has been weaned off meal and on to pasture as its sole source of nutrition. Due to stress and undeveloped immunity during this period animals are very susceptible to parasitism from both gastrointestinal parasites and coccidiosis. In most cases calves will have been weaned off a meal containing a coccidiostat. The removal of the coccidiostat can result in a growth check while the animal's immunity to coccidia infection is developing.

A treatment with Turbo Initial after weaning results in highly effective control of gastrointestinal roundworms and lungworm. It also helps treat coccidiosis and reduces pasture infection by coccidia oocysts. It bridges the gap between the removal of a coccidiostat in meal and the development of natural immunity to coccidia infection.

New Zealand studies with Turbo Initial show the product is highly effective at controlling gastrointestinal roundworms and lungworms with efficacy levels over 98% against all species tested. The product also aids in the treatment of coccidiosis. New Zealand studies show that a treatment with Turbo Initial

will significantly reduce oocyst shedding in calves for up to 70 days after treatment. This results in reduced environmental contamination and therefore less coccidia challenge in treated animals.

**Indications:** For the effective treatment and control of susceptible strains of the following species of gastrointestinal parasites and lungworm:

**Gastrointestinal nematodes:** For the treatment and control of the following mature and immature gastrointestinal parasites (\*includes inhibited fourth stage larvae):

Barbers pole worm (*Haemonchus contortus*), Stomach hair worm (*Trichostrongylus axei*), Small brown stomach worm\* (*Ostertagia ostertagi*), Small intestinal worm (*Cooperia oncophora*), Threadnecked intestinal worms (*Nematodirus helvetianus, Nematodirus spathiger*), Intestinal threadworm (*Strongyloides papillosus*), Cattle hookworm (*Bunostomum phlebotomum*), Nodule worm (*Oesophagostomum radiatum*), Large- mouthed bowel worm adults (*Chabertia spp.*), Whipworm - adults (*Trichuris spp.*).

Lungworm: Dictyocaulus viviparus

**Coccidia:** Aids in the control of coccidiosis and in reducing oocyst shedding in calves infected with susceptible strains of the coccidia: *Eimeria bovis* and/or *Eimeria zuernii*.

Turbo Initial is recommended for use only where veterinary diagnosis has identified calves are infected with both internal parasites and coccidia. Administer once as a single oral treatment.

The presence of worm parasites and coccidia in the herd should be confirmed by farm history, faecal sampling and laboratory testing.

#### **PRODUCT BENEFITS:**

- World first dual active anthelmintic with the addition of an anticoccidial.
- Treats roundworm infections and lungworm as well as aids in the control of coccidiosis in one convenient dose.
- · Includes supplemental source of cobalt and selenium
- Effective against resistant worm strains, including those resistant to both macrocyclic lactones and levamisole.
- More effective at delaying worm parasite resistance than single active products
- Helps to control coccidiosis by removing the parasites already present in the gut and reducing environmental contamination by limiting oocyst excretion. In New Zealand studies oocyst excretion was significantly reduced for up to 70 days after treatment when compared to untreated controls.
- Does not interfere with the normal development of immunity by the calf to coccidiosis<sup>(1)</sup>
- High safety margin. Unlike oral combination drenches containing abamectin, Turbo Initial can be used in calves less than 120kg live weight.
- Developed for New Zealand conditions by a New Zealand owned company.

 STEACE 2

 TURBO® Initial Oral Drench





TURBO® CATTLE Drench programme

# PRE-MATING CHECKLIST Are you prepared?

- Tailpaint on 35 days before planned start of mating
- Metricheck: All cows should be checked 8 to 28 days post calving.
- Trace element check we can check essential trace element levels at our first Metricheck visit. Avoid treating cows with injectable copper in the month leading up to mating.
- Body condition score herd to identify cows that need to be in a TLC mob with heifers
- Heifers and lighter BCS cows may benefit from a drench. Lincoln University dairy farm trial work showed that heifers drenched pre-mating with Eprinex conceived 13 days earlier than untreated heifers!
- Non cycling cows need to be treated 10 days before
   planned start of mating to maximise economic benefit
- Bulls got enough? Estimate from last season's mating performance how many cows are likely to be 'open' when the bulls go out and apply a ratio of 1 bull: 30 open cows. Double this number to allow rotation of bull teams every second day.
- Bulls make sure they are blood tested for BVD, vaccinated for lepto and BVD (with the booster injection given 4 weeks prior to going out with the cows) and have had a basic physical examination.
- R2 heifers start mating 10 days earlier than milking herd. BVD vaccinations need to be completed with the booster injection given 4 weeks prior to mating.

# METRICHECKING /CURING

At this busy time of year, just a reminder about those later calving cows for metrichecking and curing.

This can be done from two weeks after calving and helps give them the best chance of starting to cycle as early as possible.



Just a reminder about pre-mating heats – get that tail paint on 35 days before the planned start of mating (PSM) e.g. 15th September if 20th Oct PSM. Late calvers can get a different colour applied as and when they calve.

Check tail paint at least twice weekly for rubs until PSM, repainting rubbed cows with a third colour. It seems like an extra job at a busy time of year, but this system can let you know early how many cows are cycling and is essential for knowing how many non-cyclers you have and treating them early.



We want to help you help our kids by debudding, and vaccinating the calves you are donating to Gumboot Friday for free.

This service is available to current RVC dairy farming clients using our disbudding service.

Please let Colin know or Kellie know, or email the team at: largea@rangvet.co.nz





# Looking to inject that extra edge in reproductive performance?

#### By John Spearpoint

Many farmers already have good trace mineral programs but there are times when the requirements for trace elements rapidly increases. And even when herds are well-supplemented, cows can slip into a slight deficiency during periods of high demand. Stressful events such as early lactation and mating lead to high demand, so supplementing trace minerals prior to these events allows levels to be maintained.

#### Roles of trace minerals in reproduction

The reproductive system uses many trace elements. For example, manganese protects the developing egg within the ovary, zinc aids in the maintenance of a healthy uterine lining, selenium is important to protect the growing embryo and plays an important antioxidant role, whilst copper is an essential component in functioning enzymes to protect cells from damage.

Consequently, any deficiency in copper, selenium, zinc, or manganese can lead to a reduction in fertility.

#### **Economic benefits of MULTIMIN supplementation**

Extensive research both in NZ and internationally demonstrate the benefits of supplementing with MULTIMIN 3-4 weeks prior to mating, even when blood or liver testing did not identify a deficiency. Supplementing with MULTIMIN gave small but significant gains and gave good returns on investment.

#### On average, MULTIMIN treated cows

- got in calf 3.4 days earlier
- lost less pregnancies
- had a 3.3% higher pregnancy rate
- gave a 4:1 ROI (@\$4 payout)

Interestingly, these studies were conducted in herds that already had good reproductive performance. So if you're wanting to gain that extra edge, a pre-mating MULTIMIN injection may improve 6-week ICR and overall pregnancy rates.

And don't forget the bulls. Injecting bulls 12 weeks prior to joining will improve semen quality and quantity.

#### FAQ's

I already use trace mineral supplements (eg. Agvance mineral licks, Dosatron water supplementation, feed mixes) and my blood tests show normal results. Why should I use MULTIMIN?

Oral forms of supplementation are effective for the maintenance of normal activities but absorption through the gut can be slow and intakes can be variable. During periods of high demand, animals tend to have a reduced appetite, resulting in less feed intake and thereby reduced trace mineral intake. Injecting MULTIMIN prior to high demand periods minimizes the effects from lowered oral intakes. View MULTIMIN as a 'top-up' to oral supplementation, rather than a replacement for it.

#### Should I get bloods taken before supplementing with MULTIMIN?

For herds monitoring trace elements less frequently (ie. more than 6 month ago), blood testing prior to supplementation is useful to understand if a deficiency exists and to what extent. MULTIMIN is not designed to treat severe trace mineral deficiencies and



other products may be more suited to address these deficiencies. MULTIMIN is most suited to animals with reasonable-good trace mineral levels.

#### I gave my herd a selenium injection prior to calving, is it too soon to supplement with MULTIMIN and will it cause toxicity?

The transition from late gestation to early lactation represents one of the biggest challenges for a dairy cow and is associated with high levels of stress and a high demand for trace minerals. With many herds supplementing with a selenium product pre-calving to combat retained foetal membranes, before using MULTIMIN it is worth considering whether the selenium product is likely to be at high levels. Long-acting selenium products such as Selovin LA are designed to provide a sustained effect without causing a sudden spike in blood selenium levels, so supplementing with MULTIMIN represents minimal toxicity risk. Other shorter-acting products containing selenium such as Selovin 5, Vijec B12 + Se, and MULTIMIN are quickly absorbed and result in a sudden spike in selenium that is short lived. Using these products closely together (within a few days) is not advisable but considering the time interval between a pre-calving selenium injection and a pre-mating MULTIMIN injection, the spike following the initial selenium injection would be largely worn off, so there is minimal toxicity risk if followed by a MULTIMIN injection. Selenium fertilizer and prills will also cause a spike for about 1-2 months so avoid doubling up with MULTIMIN if fertilizer application has been recent. Various research studies on MULTIMIN also highlight the low risk associated with using MULTIMIN as many of these studies were conducted on animals already with high selenium levels.

#### How long does MULTIMIN last?

This depends on the current trace mineral status of the individual animal and their level of demand. Animals which have a greater requirement for trace minerals will use them up faster than animals with a lower requirement who will store the trace minerals for later use. I would typically advise up to 6 weeks persistence in animals with good trace mineral levels prior to supplementation.

| How to use MULTIMIN:   | $\star$ |
|--|---------|
| <b>Timing of supplementation</b><br>3-4 weeks prior to mating  |         |
| Dosage<br>Yearlings (1-2 years) 1 mL/75kg, under the skin<br>Adult cattle (>2 years)1 mL/100kg, under the skir | 1       |
| Withholding period   |         |

#### **Contraindications**

Do not use MULTIMIN with other forms of copper supplementation or selenium fertilizer. Do not exceed the stated dose. Do not administer to animals with BCS <3/10.





# GET YOUR HERD AND YOURSELF PERFORMANCE READY THIS SEASON



# STONEY PACKS WORTH \$650!



Qualifying purchases: 1x 500 ml or 2x 200 ml of MULTIMIN®. 50 prize packs available in total. Draw is final, non-transferable for cash. Promotion runs 14th June 2021 to 30th September 2021. Visit performanceready.co.nz for full T&Cs. Registered pursuant to the ACVM Act 1997, No. A9374. Copyright © 2021 Virbac New Zealand Limited. All rights reserved. Virbac New Zealand Limited, 26-30 Maui Street, Pukete, Hamilton 3200. 05/21.





# Managing BVD like COVID-19

#### By John Spearpoint

We're all familiar with the risks and response to COVID-19 and what effects a super-spreader event can have on our community.

Now consider your community of cows, your herd, and other highly infectious diseases that can wreak havoc on their health and wellbeing. Bovine Viral Diarrhoea (BVD) is one example of a COVID-like disease that can persist within a herd/community but with appropriate measures can also be managed in a similar fashion to COVID-19 towards elimination.

Research indicates a lot of dairy herds have cleared BVD but now have low immunity levels (a naïve herd that is highly susceptible) so the risk of a BVD incursion is even now more serious. Like COVID-19, eliminating BVD from your herd is a step in the right direction but is ineffective unless coupled with testing & culling, vaccination and adequate biosecurity.

## Health effects of BVD

Much like the health and economic impacts of COVID-19, the effects of BVD within a herd are far-reaching. In heifers and cows, BVD seriously impacts fertility through early embryonic death, resulting in higher empty rates and long returns to service. Later it may cause abortions, stillbirths, mummified fetuses, and even birth defects.

In bulls, BVD causes infertility with disastrous consequences on pregnancy rates. Bulls can shed virus in semen if they become transiently infected, so become a major source of transmission during the breeding season.

BVD also causes immune suppression, so young calves can become susceptible to other diseases such as pneumonia, scouring, coccidia.

Production effects include reduced milk yield and reduced growth rates. Research indicates a persistently infected (PI) animal has half the milk production of a non-PI animal, is approximately 70kg lighter at 21 months, has a lower survival rate, has a 17x higher risk of mastitis and a 12x increased risk of severe illness.



Courtesy BVD Zero, Boehringer Ingelheim

### The super-spreader in the community – PI animals

BVD persistence within a herd occurs when a PI animal carriers the disease and transmits the virus to other animals through close contact. The concept of 'close contact' can include comingling with a PI animal, a brief nose-to-nose encounter over a neighbour's fence line or grazing in an environment contaminated with faeces from a PI animal.

A PI animal can only be created when the dam is exposed to the virus during the first 4 months of pregnancy when the developing foetus has an immature immune system. The cow will become transiently infected (TI), and like catching a cold, perhaps have a high temperature and be off-colour for a short period but will recover and develop antibodies. A transiently infected animal does not transmit the virus. Unfortunately though, if the exposed foetus survives to birth, they become a 'virus factory' and will nearly continuously shed the virus throughout their entire lifetime, infecting other animals they have contact with.

PI animals cannot be cured or treated and must be culled.





# Surveillance testing for BVD

#### 1. Bulk milk sampling the milking herd

Like community waste water screening for COVID-19, bulk milk sampling is extremely sensitive and effective in detecting BVD within the milking herd. There are 2 components to BVD bulk milk testing.

**BVD bulk milk antibody ELISA** – Monitors for signs of ongoing BVD exposure. A spike between the start and end of season indicates the cows have been exposed during the risk period for generating PI calves. Testing all replacement heifer calves born next season is essential to identify any PI animals.

**BVD bulk milk PCR test** – Screens the milkers for the presence of a PI animal. This test is essential BEFORE mating to ensure no PI animals have entered the milking herd since last season.

Note: Bulk milk test results only reflect the BVD status of animals contributing to the vat on the day of sampling, so calves, heifers, colostrum or lame cows will need to be individually tested.

#### 2. Screening heifer replacements

It only takes 1 cow to become exposed to get a PI animal. Calves should be treated as new introductions to the farm, so screening heifer replacements ASAP after birth will catch any breakthroughs. Ear notch sampling can be done at the time of disbudding and can differentiate between a PI, TI and a non-infected animal.

# Stopping BVD is all about cutting off the supply of PI animals, so identifying them early allows quick removal.

Pregnant dairy cattle that come into contact with other dairy or beef cattle while away at grazing may become exposed to BVD and become a trojan cow. These cows will be transiently infected with BVD and not test positive but the foetus develops into a PI calf, is brought back onto the milking platform to calve, thereby re-introducing BVD into the milking herd. This is why it is important to test all newborn calves.

#### 3. Screening bulls

Bulls are a high risk group due to the timing of their introduction into the herd. A large number of AB calves are likely to be within the risk period for developing into a PI calf if exposed to BVD.

# Ensure you only purchase BVD-tested bulls that have been vaccinated prior to arrival.

#### 4. Individual blood testing

While a scouring, poor-doing animal is a common sign for BVD infection, this is not always the case. Blood sampling individual animals can identify the presence of virus and confirm if the animal is persistently infected.

# sop Social distancing, isolation, MIQ and border security

Don't become complacent if there is no evidence of infection within your herd. Maintaining good biosecurity measures is important to prevent future disease introduction. These measures include;

- ✔ Knowing the BVD status of any introduced stock onto the property (bulls, herd replacements, bought in stock)
- Ensuring good boundary fencing with neighbouring properties to prevent nose-to-contact. Double-fencing or not grazing adjacent stock at the same time are effective means of social distancing and preventing unwanted visitors from joining your bubble.
- Maintaining good levels of hygiene. The virus doesn't survive well in the environment but can be easily spread in faeces, saliva, milk, urine. If you're sharing yards, spell these for at a week before re-using. If you're milking the neighbours herd due to breakdowns, ensure proper washdown between milking herds.
- Quarantining stock of unknown status until they are tested or vaccinated.

#### Testing calves is the best way to see if your biosecurity plan is working and to monitor for breakthrough.

The below example demonstrates the potential number of animals that a calf on a New Zealand dairy farm could come into contact with, all before her second mating: Home farm Grazing Cows walking past to home farm 0 120 12 1,250 1,250 150 150 150 150 150 1,450 1,450 1,450

**TOTAL – 7,017** cattle that she could have been exposed to. Of course, one calf will not be exposed to all these animals – but she could be exposed to any of them.





# Keeping your herd safe with vaccination

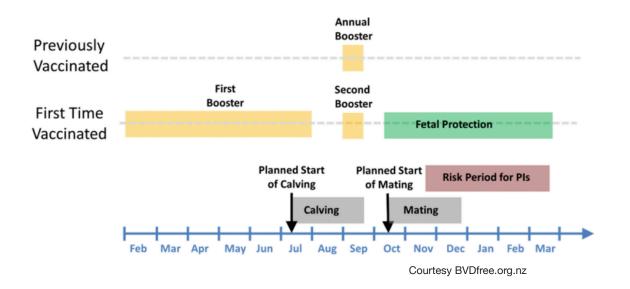
Like COVID-19, vaccination remains the most effective means of breaking the cycle of transmission by preventing the formation of those pesky super-spreader PI animals. Although vaccination cannot completely stop animals from becoming infected, it will provide foetal protection by preventing virus spread across the placenta and formation of a PI calf. Vaccination will also reduce the severity of infection and minimizes production losses.

Note: Vaccination will have no effect on a PI animal as they cannot mount an immune response. They will continue to shed the virus even if vaccinated, so it is important to promptly remove PI animals and screen prior to vaccination.

#### Timing of vaccination is critical to break the transmission cycle.

#### **RECOMMENDED VACCINATION SCHEDULE:**

| Previously vaccinated animals                           | : | Annual booster, 2 weeks prior to PSM   |
|---|---|--|
| Previously unvaccinated animals (heifers)               | : | 2 injections, 4 weeks apart, 1 month prior to PSM  |
| Bulls   | : | 1 month prior to PSM<br>Vaccination of bulls is ESSENTIAL as the consequence of bulls<br>becoming sick with BVD are severe.                    |
| Carry-over cows/heifers leaving farm or away at grazing | : | Vaccinate before leaving the farm because often they don't return until they're ready to calve.<br>OR, vaccinate at least 1 month prior to PSM |



Work with your veterinarian to establish a BVD eradication plan, achieved by a combination of:





Biosecurity to minimise the risk of BVD re-entering



**Vaccination** to protect your herd – economic analysis shows that vaccination is an essential part of the most cost-effective BVD management plans<sup>3</sup>.

For more information on BVD visit www.bvdfree.org.nz





zoetis

# STOP BVD IN ITS TRACKS

EMAD

With Ultravac BVD<sup>®</sup>. For premium foetal protection.

The most devastating impacts of BVD are on pregnant cattle and their unborn calves, so protecting heifers and cows from infection during mating and gestation is critical.

Protect the health of your herd by keeping BVD off your farm for good with Ultravac BVD<sup>®</sup> the premium foetal protection vaccine proven in New Zealand.<sup>1</sup>





1. R Packianathan, WJ Clough, A Hodge, DK Holz, J Huang, GL Bryant & C Colantoni (2017): Prevention of fetal infection in heifers challenged with bovine viral diarrhoea virus type 1a by vaccination with a type 1c or type 1a vaccine, New Zealand Veterinary Journal, DOI:10.1080/00480169.2017.1291376. Zoetis New Zealand Limited. Tel: 0800 963 847; www.zoetis.co.nz. ULTRAVAC is a registered trade mark of Zoetis Inc. or its subsidiaries. ACVM No. A10730: RVM; Available only under Veterinary Authorisation.

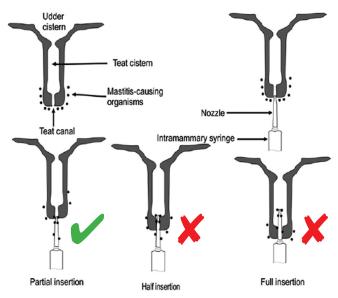




# **INCREASING MASTITIS CURE RATES**

Recently we have done a reasonable amount of work with some of our farmers about the correct antibiotic to use to treat clinical mastitis during spring and further into lactation. As we have been having these discussions with clients we have become aware of some common themes that we should share with all our clients.

- Cleaning of the teat end prior to insertion. The teat is NOT clean after removing the cups and needs to be properly cleaned with teat wipes (See diagram). Recent research has shown that 11% of cows treated for mastitis will develop a new infection with a different bacteria immediately after treatment with an intramammary product. This comes down to introduction by the nozzle, and most of the common antibiotics will not treat E. coli or other faecal type bacteria. Hygiene is essential!
- **Partial insertion of the nozzle.** Only 2-3mm of the end of the antibiotic tube needs to be inserted through the opening at the end of the teat. Pushing the whole nozzle in can cause damage to the very sensitive lining of the teat as well as potentially introducing bacteria high up into the gland.
- Spraying with teat spray immediately after finishing with the application of antibiotics. This decreases the chance that a bacteria at the teat end can migrate into the opening.
- Follow the whole treatment regime, and check with your staff that cows are getting the whole course of treatment. A white board with columns for Cow ID, Quarter, Treatment Type, and tick boxes for the 3 or more treatments can help with this.



- Take samples of "Treatment Failures" if you do not use an on-farm milk culture machine routinely it is good practice to take a milk sample before starting any antibiotic therapy and storing the sample in the fridge just in case the initial treatment is not effective. Before starting another round of antibiotics, submit a milk sample to the clinic for further advice. Our mastitis testing machine which can identify the bacteria and indicate appropriate antibiotic recommendations – all within 24 hours."
- Ask any of our vets for advice and we will be more than willing to sit down with you and give you some personalised advice.







# TREATING ADULT DAIRY CATTLE



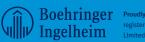
## **EPRINEX® Pour-On for Cattle** SHOULD BE THE POUR-ON USED TO TREAT ADULT DAIRY CATTLE FOR THESE IMPORTANT REASONS:

- EPRINEX<sup>®</sup> contains the most potent active ingredient identified to date to kill gastrointestinal parasites in cattle<sup>1</sup>.
- **EPRINEX**<sup>®</sup> is the ONLY product with a scientific trial, conducted independently by veterinarians at Massey University (2017), to show a significant increase in milk solids following treatment<sup>3</sup>.
- Milk solids will increase on average by 0.03kg/cow/day following an EPRINEX<sup>®</sup> treatment<sup>2,3</sup>. That's 8.22kg MS/cow/lactation (Days in milk - 274 days). Cydectin<sup>®</sup> only claim an increase of 4.26kg MS/cow/lactation<sup>6</sup>.

- 8.22kg MS/cow/lactation is \$65.76 extra at an \$8 payout.
- Only EPRINEX<sup>®</sup> has been shown in scientific studies to improve reproductive performance<sup>4,5</sup>.
- A study showed that EPRINEX<sup>®</sup> at calving reduced calving to conception in heifers by 12.9 days. There was a 52% increase in pregnancy rate at first insemination in heifers and 16.6% increase in cattle which equates to a 19.9% increase in pregnancy rate overall<sup>4</sup>.
- EPRINEX<sup>®</sup> is best for food safety it's the only product whose development programme not only included optimization of potency but which sought to minimize milk partitioning and enhance food safety – so important when we're in the business of making milk powder for babies!

 Vercruysse, J and Rew, R.S. 2002. Macrocyclic Lactones in Antiparasitic Therapy. CABI Publishing. 2). McPherson, W.B., Gogolewski, R.P., Slaeck, E Familton, A.S., Gross, S.J., Maciel, A.E., Ryanh, W.G. 2001. Effect of peri-parturient eprinomectin treatment of dairy cows on milk production. New Zealar Veterinary Journal 49(3): 106-110. 3). Lawrence. K.E., Tulley, W.J., Scott, I., Ponroy, W.E. 2017. The effect of mid-lactation treatment with topically applic eprinomectin on milk production in nine New Zealand dairy farms. Veterinary Parasitology: Regional Studies and Reports 10: 95-101. 4). McPherson, W.E. Slacek, B., Familton, A., Gogolewski, R.P., Gross, S.J. 2000. The Impact Of Eprinomectin Treatment On Dairy Cattle Reproductive Performance. Proceeding of the American Association of Veterinary Parasitologists. 44th Annual Meeting, New Orleans, Louisian, USA, 1999. Abstr. 28. 5). Sanchez, J., Nødrvec A., Dohoo, I., DesCôteaux, L. 2002. The effect of eprinomectin treatment with moxidectin, a long-acting endectocide, on milk production in lactatin dairy cows. In: Fort Dodge Statellite Symposium, XXII World Buiatrics Comgress, Hannover, pp. 1-4.





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