



Blue Pacific
MINERALS

CLEVER *by* NATURE



OptiGuard™

Protecting calves naturally



PRODUCT CATALOGUE

- Premium milled product
- Aids in the treatment of Diarrhoea
- Optimises growth

VET ONLY PRODUCT

The **Opti-product range** of animal feed additives currently consist of two products aimed at dairy ruminants. **OptiGuard™** has been developed for dairy calves and **Optimate™** is used in dry and lactating dairy cows.



Both products are natural zeolites derived from NZ deposits and differ in grading or “fineness”, with the finest grade (approx. 40 µm) to be used in calves and a courser grade (approx. 120 µm) developed for use in adult dairy cows.

Zeolites are aluminosilicates derived from lava rock deposits in New Zealand. They have a unique three-dimensional porous structure, allowing them to absorb and release water reversibly. In addition, they have an amazing ability to absorb, bind and release when needed, positively charged ions (so called cations), such as, but not limited to; ammonium (NH⁴⁺), sodium (Na⁺), potassium (K⁺) and calcium (Ca²⁺).

Because of these unique properties zeolites have been used as feed additives in livestock (ruminants, swine, poultry) for many decades to increase average daily gain and improve health of young stock. They also improve rumen function and nitrogen utilisation, aiding in supporting a healthy immune system.



The natural **BPM** zeolite product recommended for use with calves.

OptiGuard™ has been specially formulated with an ultra fine particle size for the vet-only market in NZ.

OptiGuard™ is easy to feed, as it can be mixed into the colostrum and milk or provided continuously on a free-choice basis. Anecdotal feedback from farmers that have used **OptiGuard™** is that when freely available, calves like it. Based on overseas research and our own experiences, we suggest to feed it at a level of up to 1g / per kg of the calf's body weight or 1% of the amount of colostrum or milk. This amounts to no more than approximately 20 - 40g per calf per day.

The unique and extensive internal network of microscopically small pores or channels in **BPM** zeolite means that its total theoretical absorptive capacity is relatively unaffected by particle size. However, decreasing particle size significantly increases the total surface area and may even increase pore diameter and speed of action.

This means that the ultra fine particle size of **OptiGuard™** ensures a larger total functional surface, providing a much larger surface-gut environment interface. This allows for more rapid action by the **OptiGuard™** material as well as improved electrolyte and water balance in the intestines.

Please refer to page 7 for a list of research papers available to read online once the link is incorporated into the **BPMNZ** website - or alternatively search online for the science research papers (NB: Client reports won't be on the web)

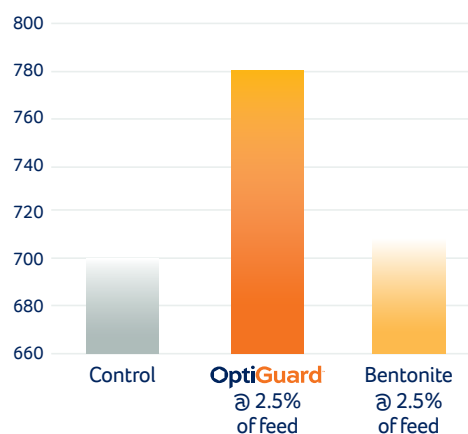
FOR IMPROVING WEIGHT GAIN

Trial work completed in conjunction with a recognised veterinary practice shows improved weight gain in calves fed (**OptiGuard™**) over a 46 day period.

Other benefits seen in the group supplemented with **OptiGuard™** were:

- A faster transition onto meal
- Better coat condition
- Less incidence and severity of diarrhoea

AVERAGE DAILY WEIGHT GAIN (GRAMS)



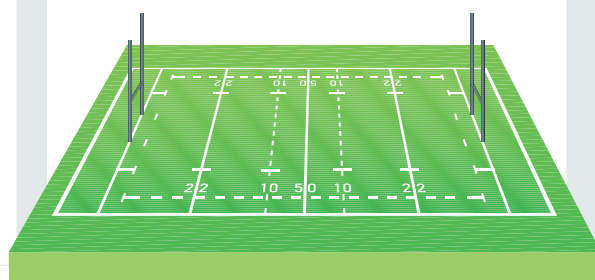
PREMIUM FINELY MILLED

4 Tbsp of **OptiGuard™**, with its unique 3-dimensional porous structure, has enough total absorptive surface area to cover a full-sized rugby field.

The ultra fine particle size of **OptiGuard™** provides a much larger surface-gut environment interface.

NZ RUGBY FIELD VS 4 TBSP

OptiGuard



WHY SHOULD I FEED OPTIGUARD™?

Overseas research, backed up by feedback from farmers in NZ, shows that **OptiGuard™** helps in the treatment of diarrhoea in calves and improves growth rates.

The latter is probably related to improved overall health of the animals. If the intestines are impaired as a result of the consequences of diarrhoea, nutrient absorption will decrease and weight loss may occur. Helping to treat this will help with growth of the calf.

HOW DOES OPTIGUARD™ HELP?

How it exactly works as an anti-diarrhoeal is still largely unknown, but there are good indications that it is related to its unique ability to absorb “things”.

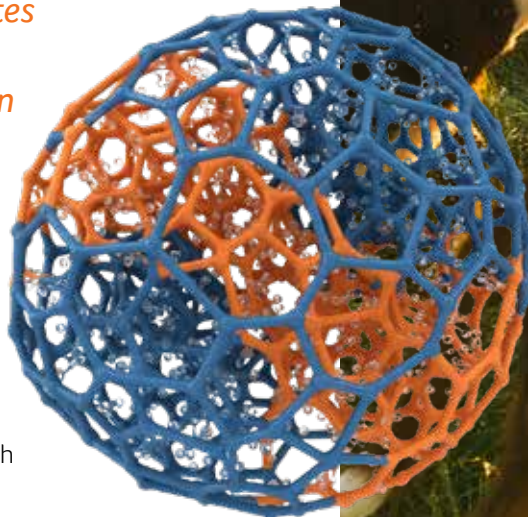
Its ability to absorb water removes some water from the digesta in the digestive tract. The common observation that the manure tends to be a bit drier in calves receiving **BPM** zeolites supports this. If the digesta is a bit drier, it moves a bit slower through the digestive tract allowing more time for digestion and the resulting nutrients to be taken up. Not only nutrients, the important antibodies that are in colostrum are also taken up.

It is important to feed colostrum as early as possible, as the wall of the intestines of the new born calf are porous, so they can let the large antibody molecules through intact. Of course this is risky, because bacteria can also enter at this time and therefore, colostrum has also factors in it that close the “gaps” soon after birth. By helping to slow down the feed of colostrum a bit, it allows more time for antibodies to be absorbed. There is some research showing that zeolites do aid antibody absorption, however more research is needed.

*Because of the **BPMNZ Aluminosilicates (OptiGuard™)** unique 3 dimensional honeycomb porous structure it has an incredible absorption capability of liquids and compounds.*

IS IT SIMILAR TO BENTONITE?

Not really. Bentonite is a clay substance, whereas zeolites are crystallised aluminosilicate minerals found in lava rock deposits. Although both are absorbents the structures are different.

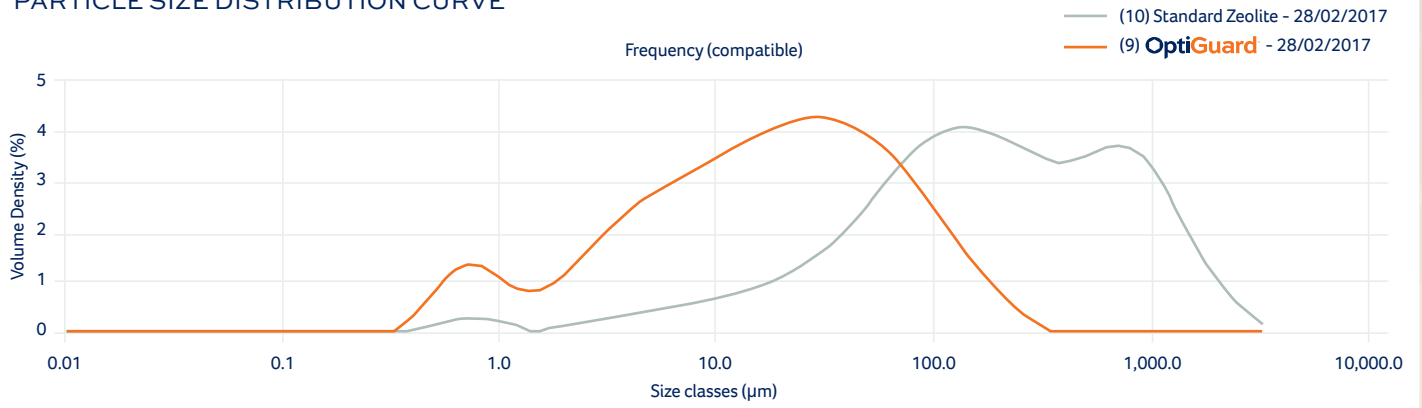


*“After getting a few issues with one mob of calves the vets put me onto **OptiGuard™**... my calves absolutely love the stuff. Every mob is now on it with their meal and they are growing so well! After their milk they go straight for it! They have gained so much weight and are looking so happy and healthy. I am very impressed by this product!”*

Renae Flett - Feilding



PARTICLE SIZE DISTRIBUTION CURVE





HOW SAFE IS OPTIGUARD™ FOR MY CALVES?

Overseas trials have shown that zeolites at levels of 1g per kg body weight (that would be 40g per day in a calf weighing 40kg) or less, can be fed without any adverse effects for several months.

WHEN FED AD-LIB CAN THEY EAT TOO MUCH OF IT?

This is unlikely. It is a mineral and animals don't tend to over eat minerals as they are not particularly tasty, like e.g. calf muesli. Animals tend to self-regulate when it comes to free-choice minerals.

It is well-know that animals in the wild, including ruminants, may practice geophagy, or "eating dirt", to correct nutritional imbalances or perhaps even to "self-medicate. But, if you are concerned add a measured amount (say 20g per day) per calf through the colostrum, milk or calf meal.

*"I just wanted to say how much I love this product! I had stopped feeding as all our calves were over 1 month old and passed the high risk scouring stage. But one of the vats of stored milk went off and all the inside calves got the shits. Normally this could have turned out very badly but I just bulk fed them **OptiGuard™** and they recovered within two days."*

Sue Huckstep - Opunake

FURTHER READING

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ACHIEVE
TARGET
WEANING
WEIGHTS

WHY USE OPTIGUARD™?

- Calves love the taste
- Aids in the treatment of diarrhoea
- Supports a healthy immune system
- Aids digestion processes
- Calves grow to weight quickly and wean earlier
- BioGro certified input for organics

WHAT IS OPTIGUARD™?

OptiGuard™ is a premium quality 100% natural, finely milled **BPM** zeolite (also known as an Aluminosilicate) that is mined and manufactured locally.

Natural **BPM** zeolites have a unique three dimensional porous structure, allowing them to absorb and release water reversibly. The extensive internal network of pores coupled with cation exchange capacity of premium milled **BPMNZ** zeolite, gives **OptiGuard™** a very large surface area that enables adsorption, release of cations and treatment of mild cases of diarrhoea.

OptiGuard™ has been specially formulated with a small, finely milled particle size. The ultra-fine particle size of **OptiGuard™** ensures a larger total functional surface, providing a much larger surface-gut environment interface. This allows for the support of a healthy immune system as well as aiding in improved electrolyte and water balance in the intestines.

HOW TO USE OPTIGUARD™?

- Easy to feed, **OptiGuard™** can be mixed into colostrum and milk. Simply stir to reconstitute.
- **OptiGuard™** can also be added to your calf-meal mix, or placed directly into feed troughs to allow calves to self-manage their intake.
- Addition rates from 10g per calf, per day - or ad-lib as necessary. Calves will self-manage their intake. You cannot over-feed **OptiGuard™**.
- Please ensure calves have access to plenty of fresh water.

INGREDIENTS:

Optimate™ ACVM Registration Number A011800
See www.foodsafety.govt.nz for registration conditions

PACK SIZE: 20 KG
Available from your local Vet



100%
NATURAL



RAPID
ABSORPTION



SUPPORTS
IMMUNITY



BIOGRO
CERTIFIED

“Our calves are looking healthy and amazing. In all honesty it’s the best product we have used for calving.”

Lannah Johnson - Cambridge

VET ONLY PRODUCT



Blue Pacific
MINERALS

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