DiaGel™ Diarrhea Control Gel

For Equine

PRODUCT BENEFITS:

- A one-time administration may firm stools in 24 hours
- Eliminates bacteria
- Promotes GI health
- Rapid mode of action
- May be administered to horses of all ages
- May be used for pre-stress

Works Great for Newborn Foals!

A veterinarian's "first choice" for bacterial diarrhea

DiaGel is an orally administered product which may aid in controlling bacterial diarrhea. ***DiaGel*** eliminates bacteria such as *E. coli* and *Salmonella* which occur naturally in the GI tract. Causes of bacterial diarrhea may include:

- **Diet changes (grain overload)**
- **Environmental Changes**
- **Secondary stress**
- **Foal stress**

A one-time administration may firm stools within 24 hours.

Included in the New Formula:

- **New active compound and enhancer** eliminates bacteria fast
  - **A proprietary blend** based on research by Iowa State University

THE BENCHMARK OF QUALITY™ nasc National Animal Supplement Council

Product Available From:

VAN BEEK™ NATURAL SCIENCE
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NSF Registered to ISO 9001:2000 HACCP- 9000® Registered

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DiaGel™ Diarrhea Control Gel

FOR EQUINE

A veterinarian's "first choice" for bacterial diarrhea.

Active Ingredients per ml:
Proprietary Blend of (Carvacrol, Cinnameldahyde, Eugenol, Thymol).....51 mg
Sesquiterpenoid.....3.5 mg
Inactive Ingredients: Anise Oil, Arabic Gum, Carrageenan, Cellulose Gum, Deionized Water, Lecithin, Polysorbate 80, Potassium Chloride, Propylene Glycol, Sodium Chloride, Sodium Polyphosphate.

Cautions: Safe use in pregnant animals or animals intended for breeding has not been proven. If animal's condition worsens or does not improve, stop product administration and consult your veterinarian.

Veterinary Use Only

FOR USE IN EQUINE ONLY
Recommended for support in controlling environmentally induced diarrhea.
Primary Use: ***DiaGel*** is an orally administered product which may aid in controlling bacterial diarrhea. DiaGel eliminates bacteria such as E. coli and Salmonella which occur naturally in the GI tract. Causes of bacterial diarrhea may include:
- **Dietary changes (grain overload)**
- **Environmental change**
- **Secondary stress**
- **Foal stress**

A one-time administration may firm stools within 24 hours.
Secondary Use: ***DiaGel*** may be used in conjunction with fluid therapy, endotoxin therapy, or antibiotics to treat secondary infections associated with other causes of diarrhea.
Pre-Stress Use: ***DiaGel*** may be administered 2 hours prior to stress induced events (racing, showing, trailering, stabling, or foaling) to help reduce the incidence of diarrhea.

Amount	Weight of Equine
10 ml	Newborn to 120 pounds
15 ml	121 to 250 pounds
20 ml	251 to 500 pounds
30 ml	501+ pounds

Product Specs / Sizes:

- 30 ml syringe with ring for accurate administration.
- Syringes are individually packed in sealed tyvek peel-and-pull pouches.
- Product is packaged as 6 pouches per box.
- Outside box has a perforated tear-out end for easy dispensing.
- 4 year product shelf life

#572607 30 ml syringe Newborn to Adult

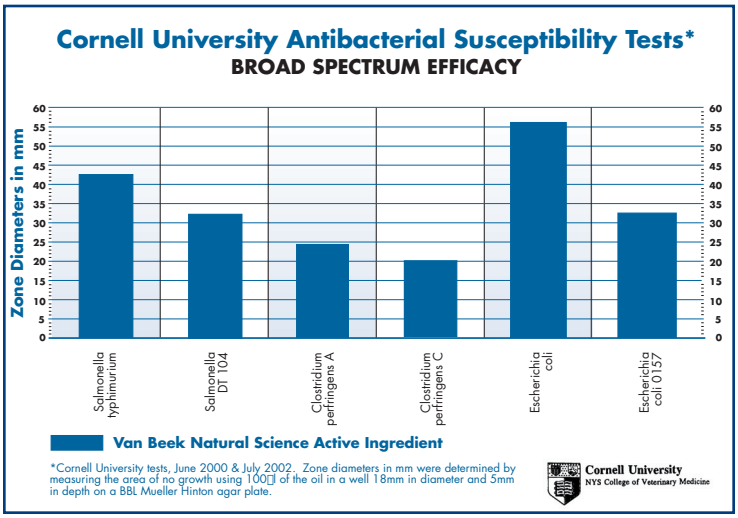
U.S. Patent No. 6,414,036

Research

Van Beek Natural Science has conducted extensive university studies, laboratory tests and field trials on the all-natural products introduced to the market.

Cornell Antibacterial Test

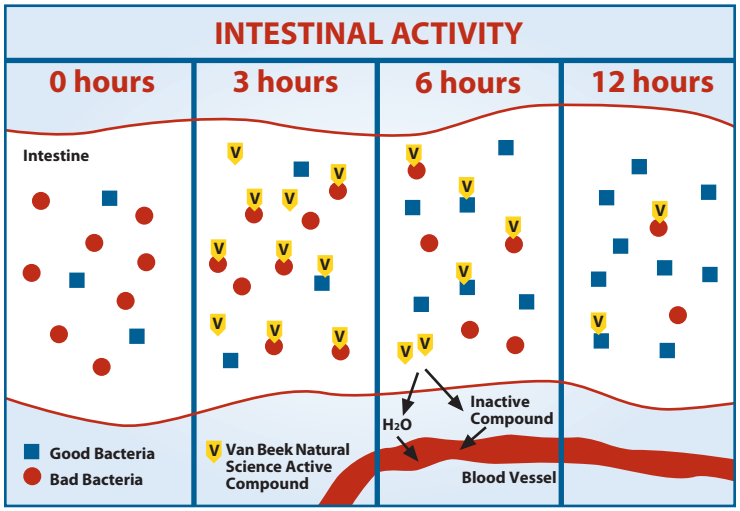
This test used the disk-diffusion method for determining the activity of antimicrobials. Each disk contains a different chemotherapeutic agent, which diffuses into the surrounding agar. The clear zone indicates inhibition of growth of the microorganism swabbed onto the plate surface.



How does DiaGel™ work?

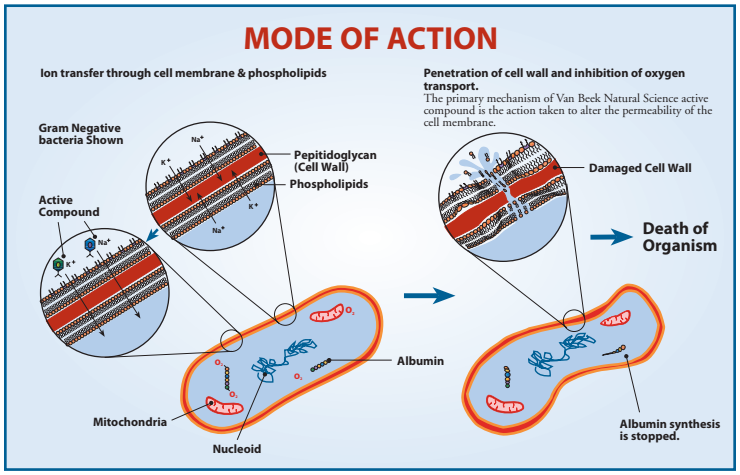
Properties of Active Compound:

The Van Beek Natural Science active compound is derived from natural plant sources and acts specifically against bacterial cells. This active compound will adhere to and affect the cell membranes of the good and bad bacteria which occur normally in the digestive tract. Due to the over-population of bad bacteria, less of the good bacteria will be affected. Within 6-12 hours the good bacteria will begin to re-populate within the upper intestine and the inactive compound will be eliminated through natural body processes.



Mode of Action: Step 1: Penetration through cell membrane

All bacteria contain lipids (fats) located in the membranes of their cell walls. On contact with the cell membrane the extremely rapid efflux of intracellular constituents evoked by the Van Beek Natural Science active compound causes a leakage of intracellular substances. This action alters the permeability of the cell membrane resulting in the death of the microorganism.



Step 2: Inhibition of Albumin Synthesis

In addition to altering the permeability of the cell membrane, the Van Beek Natural Science active compound also attacks the process of cell breathing in the mitochondria in aerobic organisms. The active compound inhibits the synthesis of albumins, which are responsible for the transportation of oxygen within the cell. Therefore, by interrupting the synthesis of the albumins, the active ingredients "suffocate" the microorganism.

Step 3: Metabolism & Excretion

A major part of the Van Beek Natural Science active compound is absorbed in the intestines. The absorbed ingredients or its partially metabolized products are excreted through the kidneys leaving the body primarily as urine (H_2O). The remaining compound is excreted through the lungs in the form of CO_2.

Components of the active compound that are absorbed are mainly decomposed into indifferent metabolites. A minor fraction of the absorbed active compound conjugates into sulfates and glucoronides. Further, a minor fraction may be oxidized leaving the body in urine. Due to this specific mode of action, pathogens cannot build up resistance against the Van Beek Natural Science active compound.