

TechMix

**Redefining
hydration**

to keep animals
**drinking, eating &
producing.**

Calf 
Renova[®]



Redefining hydration
to keep animals

drinking, eating
& producing.



Calf Renova[®]

A white silhouette of a calf's head, facing right, positioned behind the word "Calf" in the product name.

An easy-to-use capsule containing a source of live (viable) naturally occurring antimicrobials and probiotics for digestive health support.



Essential Oils

Provides a powerful antimicrobial activity that helps to clean the gut

1

Direct-Fed Microbials

Inhibits pathogen growth and repopulates the gut with beneficial bacteria

2

3

MOS

Binds pathogens and provides a healthy digestive environment and enhanced immunity

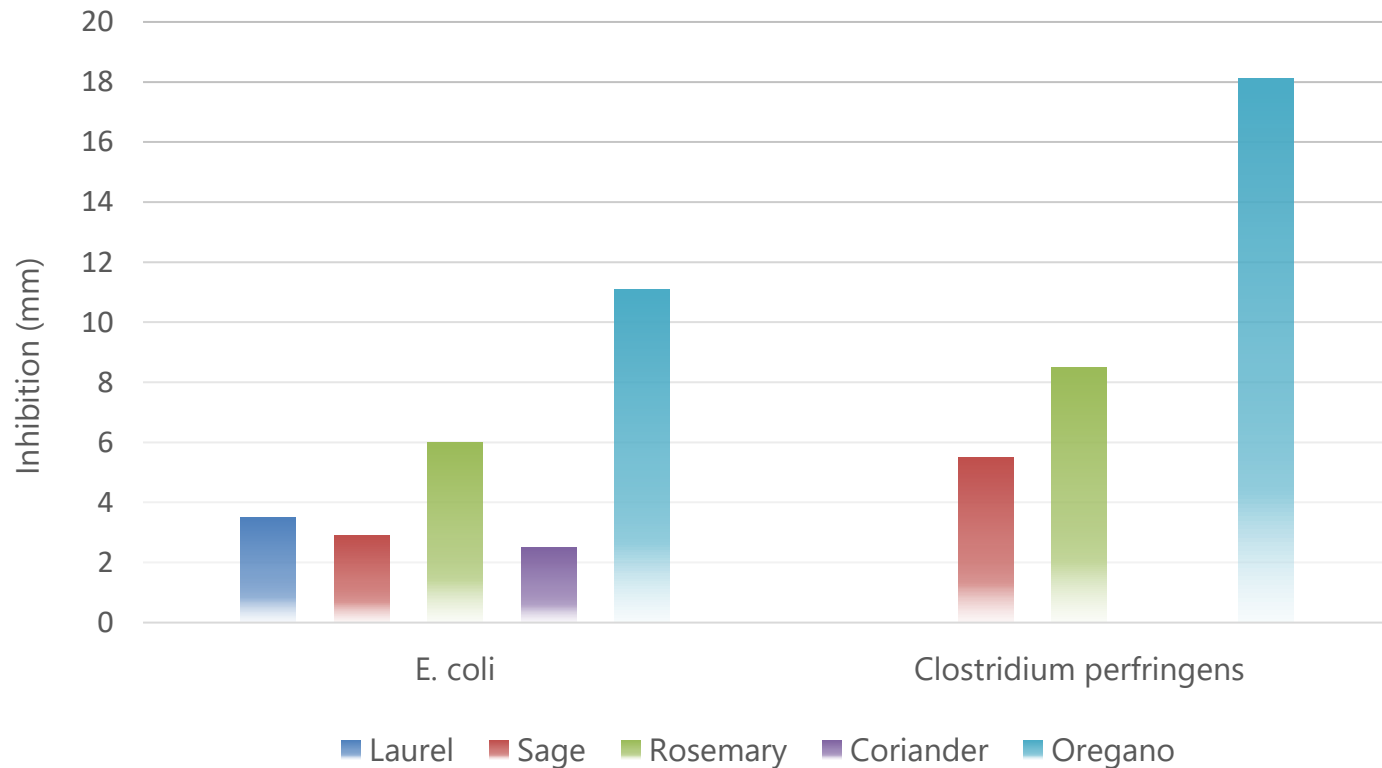


Features

- Helps eliminate enteric pathogens
- MOS - Pathogen binding
- Feeds beneficial bacteria and facilitates competitive exclusion of pathogens
- A natural, non-antibiotic alternative for enteric/scours health issues
- Less severity and duration of diarrhea
- Reduce or eliminate the use of antibiotics



Benefit of Oregano Oil vs. Other Essential Oils



(Inhibition zone, Baratta et al., 1998)



Science supports the effects of Oregano essential oil on calf scours

20

19

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journal homepage: www.elsevier.com

ELSEVIER

RESEARCH ARTICLE

Antibacterial effect of oregano essential oil alone and in combination with antibiotics against extended-spectrum β -lactamase-producing *Escherichia coli*

Hongbin Si¹, Jinqiang Hu², Zhichang Liu¹ & Zhen-ling Zeng¹

¹Guangdong Provincial Key Laboratory of Veterinary Pharmacology and Safety Evaluation, College of Veterinary Medicine, South China Agricultural University, Guangzhou, China; and ²Department of Biology, College of Chemistry and Life Sciences, Lishui University, Lishui, China

FEMS

Effect of Dried Oregano Leaves Versus Neomycin in Treating Neonatal Calves

V. A. BAMPIDIS^{1,3}, V. CHRISTODOULOU¹, P. FLOROU-PANERI² and ...

Addresses of authors: ¹Animal Research Institute, National ... Greece; ²Laboratory of Animal Nutrition, School ...

³Corresponding author: Tel.: +30 2382 031...

4082

Session: Global Nutrition: nutrition, infection and inflammation

Oregano Essential Oil and Carvacrol reduce *Cryptosporidium parvum* infectivity of HCT-8 Cells

Shashank Gaur¹, Theresa B. Kuhlenschmidt^{2,3}, Mark S. Kuhlenschmidt^{2,3}, Juan E. Andrade^{1,3}

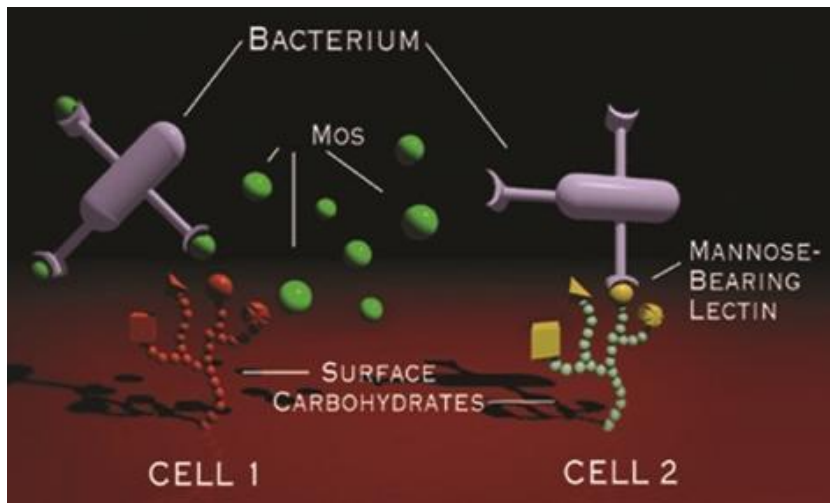
¹Department of Food Science and Human Nutrition, University of Illinois, Urbana-Champaign
²Division of Pathobiology, University of Illinois, Urbana-Champaign
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8100 Giannitsa, ... miki, Greece;

Legend: Sage, Rosemary, Coriander, Oregano

(Inhibition zone, Baratta et al., 1998)

MOS (Mannan-oligosaccharides)



- aka: Yeast Cell Wall, Hydrolized Yeast, Yeast Culture
- MOS are obtained from the cell wall of *Saccharomyces cerevisiae*.
- Can mimic the gut lining and therefore bind pathogens before they attach to intestinal wall (agglutination)
- Is a pre-biotic (nutrition source) for beneficial bacteria such as Lactobacillus
- Beta-glucans strengthens natural defenses.

Effect of Bacillus Inhibition of Pathogens

Bacillus produce antimicrobial peptides called **bacteriocins** that kill or inhibit the growth of other bacteria like *Clostridium perfringens*, *Staphylococcus aureus*, *E. coli* or *Streptococcus* spp.

	Inhibition in mm	
	B. licheniformis	B. subtilis
Cl. Perfringens Type A	10	2
	11	3
	12	3
Cl. Perfringens Type C	10	0
	9	0
	10	0
Cl. Perfringens Type A	11	6
	12	8
	13	11
Cl. Perfringens Type C	11	0
	10	0
	10	0
Staph. Aureus, -b	15	0
Staph. Aureus, -a	15	0
Strep. agalactiae	18	0
Strep. Suis, serotype 3	10	NT
Strep. Suis, serotype 8	11	NT
E.coli, k88+	6	NT
Sal. Typhimurium	4	NT
Act. Pyorgens	10	0



Directions for use

- During periods of, or after digestive problems give 1 capsule per calf at 3 days of age or later, repeat daily if required
- Do not exceed 3 consecutive days of providing capsules.



Application



TechMix
REDEFINING HYDRATION

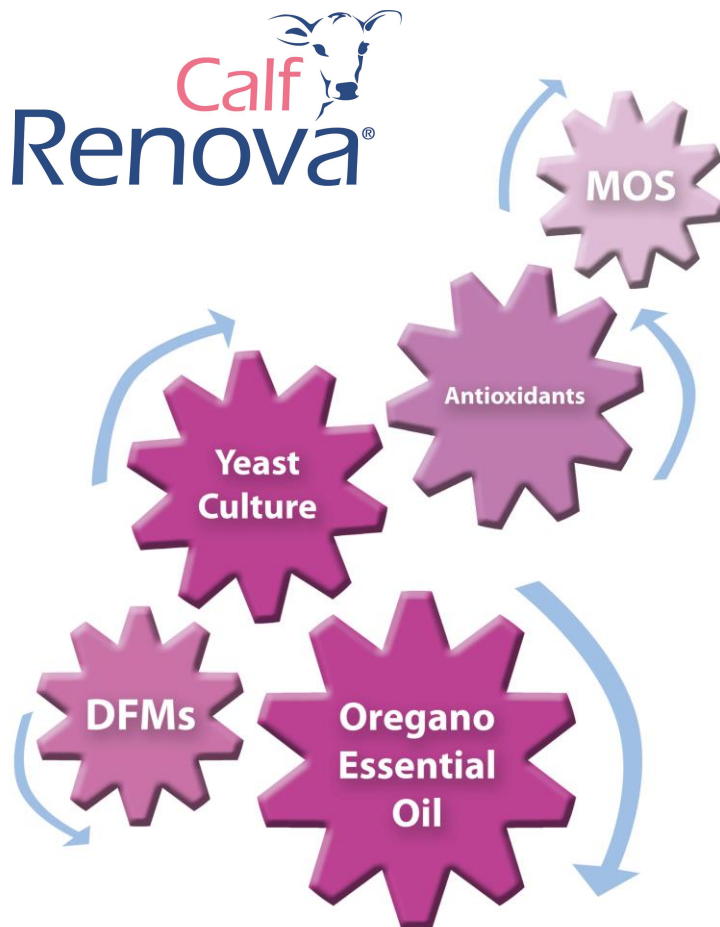


tion
inking, eating
& producing.

A graphic of a water splash in the top right corner, with the text 'tion', 'inking, eating', and '& producing.' overlaid on it.



Quick Summary



- Helps eliminate enteric pathogens
- MOS - Pathogen binding
- Feeds beneficial bacteria and facilitates **competitive** exclusion of pathogens
- A natural, **non-antibiotic** alternative for enteric/scours health issues
- **Less** severity and duration of diarrhea
- **Reduce** or eliminate the use of antibiotics

“Calf Renova, supports her digestion and scouring is reduced.”


Sarah Lenkaitis, Lenkaitis Holsteins, Illinois, USA

“We find that Calf Renova® helps stimulate her appetite and she drinks the milk. Sometimes we end up repeating this treatment a 2nd or 3rd time, but often times one treatment is enough. We think that the combination of Renova plus Replenish™ helps our scouring calves recover quicker and keeps them hydrated.”



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TechMix Europe Spain a ESP43201472



A large, dynamic splash of clear blue water is centered on the right side of the image. The splash is captured in mid-air, with many individual droplets and a turbulent, circular flow of water. The background behind the splash is a light, almost white, gradient.

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