

VITUPROP

ANTI-SAL

For the Effective Control of

Mold
E. Coli
Salmonella



Vitusa Corp.

VITUPROP ANTI-SAL

Effective E Coli and Salmonella Control

- Vituprop Anti-Sal is an all natural, concentrated product used to control and eliminate the presence of toxin producing molds, salmonella and e coli. Its combination of different organic acids will provide excellent acidification which will aid the animal's digestive process.
- Vituprop Anti-Sal is a proprietary mix of organic acids which include formic acid, propionic acid and ammonium hydroxide.
- Upon application of Vituprop Anti-Sal, the organic acids penetrate the feed resulting in an immediate decrease in mold, salmonella and e coli counts.
- Vituprop Anti-Sal has a mild odor that will not adversely affect the palatability of feeds.

Specifications

	Liquid	Dry
Active Ingredients:	Propionic Acid Ammonium Hydroxide Formic Acid	Propionic Acid Ammonium Hydroxide Formic Acid Vermiculite Bentonite
Specific Gravity	1.08	
Stability	Min. 1 year shelf life	Min. 1 year shelf life
Solubility	Soluble in water	
Flash Point	Non Flammable	195°F 90.6°C
Appearance	Liquid	Dry powder
Odor	Slight	Slight
pH	7.0 - 7.2	6.1



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Information Sheet

Description

Vituprop Anti-Sal is a natural, biological approach to control and eliminate the presence of mold, salmonella and e coli in animal feeds. A complex of various acids also serves as an excellent acidifier.

Presentation

Vituprop Anti-Sal is available in dry or liquid form, in 25 kg bags and 200 kg drums.

Ingredients

Vituprop Anti-Sal is a proprietary blend of organic acids including formic acid, propionic acid ammonium hydroxide.

Mode of Action

Upon application of Vituprop Anti-Sal, the active acids release and penetrate the entire feed which results in an immediate reduction in the presence of mold, salmonella and e coli.

Characteristics

Vituprop Anti-Sal has a slight odor, however, it does not impair the palatability of feeds.

Dosis

A standard inclusion rate of 3 kgs per MT of feed is recommended to control e coli and salmonella. If used as a mold inhibitor, a dosage of 0.5 - 1.5 kgs per MT is sufficient.



Benefits of Use

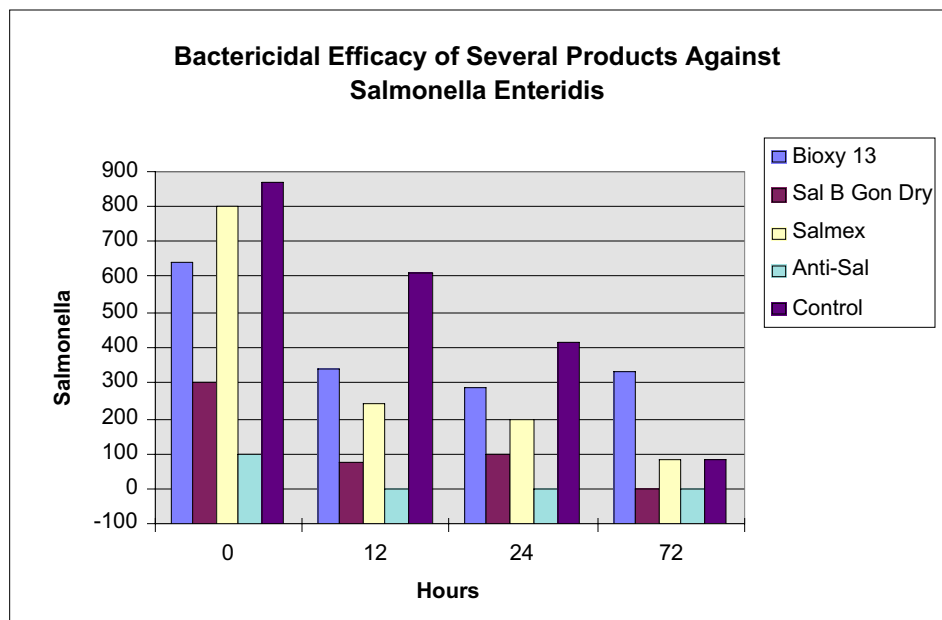
- **Vituprop Anti-Sal** is available in powder or liquid form that can be included in the feeds with no additional equipment costs to the producer.
- Commercial trials have proven **Vituprop Anti-Sal** to reduce mortality, increase weight gain and improve feed conversion.
- The active ingredients in **Vituprop Anti-Sal** release through gaseous vapors which allow for a better, more consistent penetration of the feed being treated.
- **Vituprop Anti-Sal** has been shown through in-vitro testing to reduce salmonella presence in feed up to 90% within 24 hours of treatment.
- **Vituprop Anti-Sal** is an excellent mold inhibitor which will reduce presence of dangerous toxins in feed. This will result in a healthier gut environment within the animal.
- **Vituprop Anti-Sal** is extremely cost effective with a low recommended inclusion rate.
- **Vituprop Anti-Sal** is buffered with ammonia to make it non-corrosive to mill equipment.
- **Vituprop Anti-Sal** has a mild odor that does not impair the palatability of feeds.



Test Results in Contaminated Fishmeal

High protein fishmeal was autoclaved for 90 minutes, and the moisture level was adjusted to 17% with sterile water and inoculated with Salmonella 25,000,000.00 CFU/ml. 40 mls of liquid were inoculated to 1000 grams of fishmeal.

SALMONELLA



Conclusion

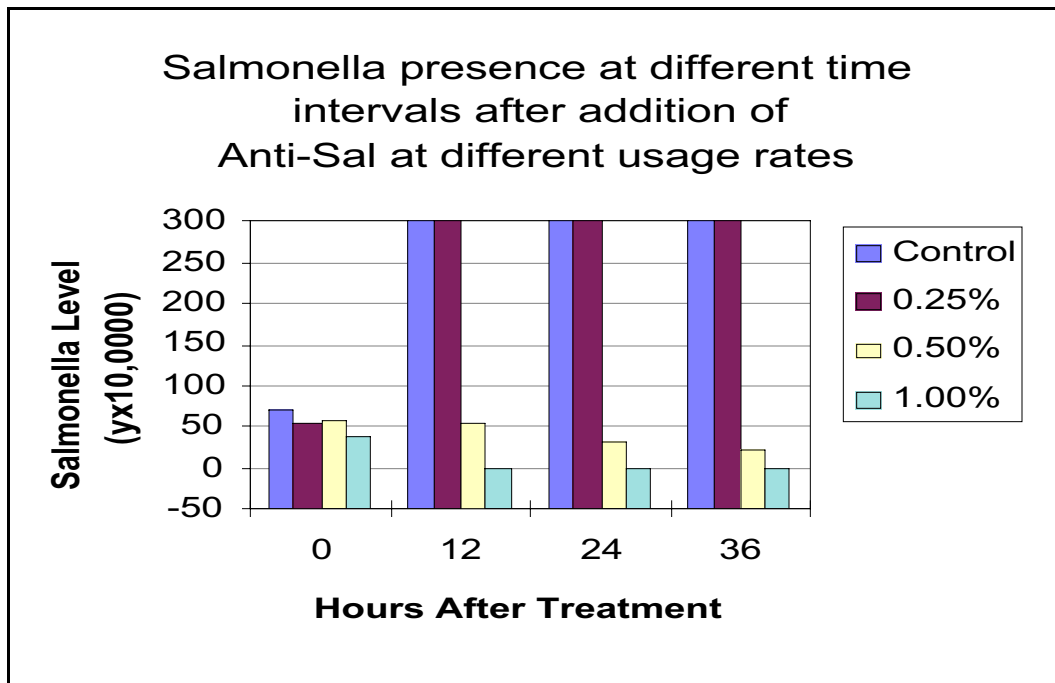
After 72 hours of treatment, the samples treated with **Vituprop Anti-Sal** contained no presence of salmonella.



Test Data - Test no. 2

The following test was conducted by A&L Midwest Laboratories, Inc. in order to demonstrate the effectiveness of **Vituprop Anti-Sal** at different usage levels on the growth of Salmonella and E coli.

SALMONELLA



Conclusion

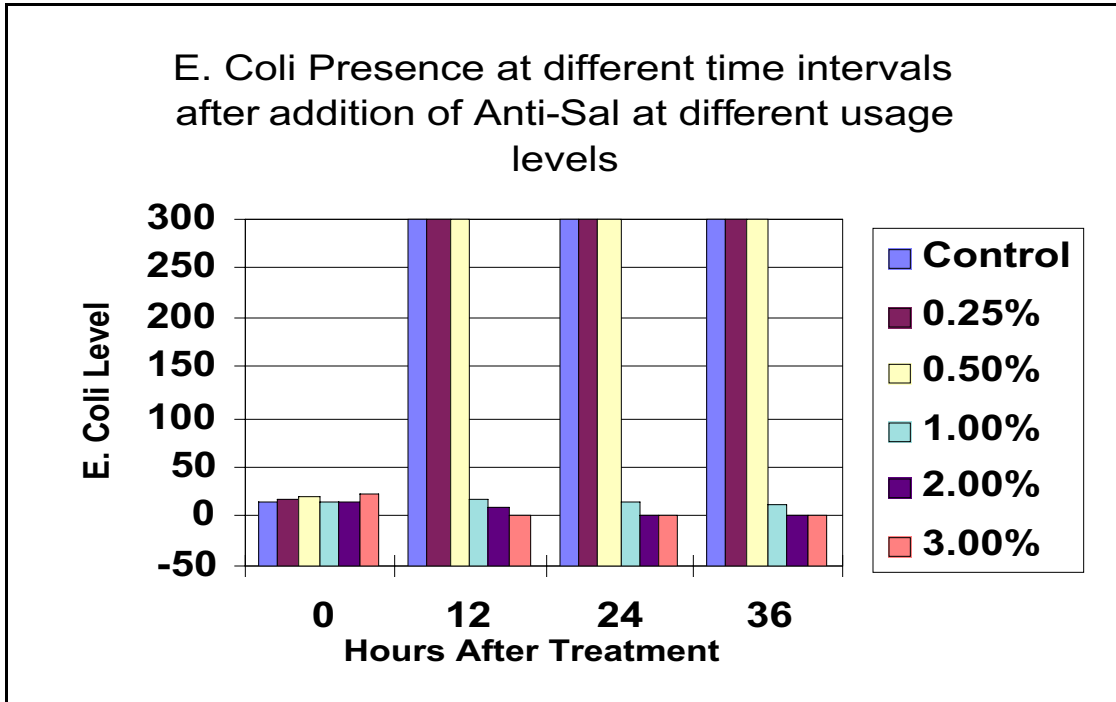
Vituprop Anti-Sal inhibits salmonella growth at manufacturer's recommended usage levels and kills salmonella within 12 hours after application at a usage rate of 1.00%.



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Test Data continued - Test no. 2

E. COLI



Conclusion

Vituprop Anti-Sal will inhibit E. Coli growth at a 1.00% usage rate. It will inhibit growth and kill existing E. Coli at a 2.00% usage rate. At a 3.00% usage rate, all E. Coli present will be destroyed within 12 hours after treatment.



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