What is VANNIX™ C?

VANNIX™ C is a new feed additive developed to help improve efficiency for producers. Uniquely, VANNIX C contains two functional ingredients:

- Tannic acid extract (TAE)
  - Extract from Chinese gallnuts for specific activity versus other tannic acids
  - Mixture of hydrolyzable tannins processed to improve the bioactivity
  - Supports intestinal integrity during challenge and non-challenge conditions
  - Works in conjunction with cocci vaccination programs

- Bacillus coagulans
  - Probiotic organism
  - Produce lactic and acetic acids
  - Supports intestinal microflora balance

VANNIX™ C utilizes the benefits of the two components to support overall intestinal health.

- TAE has consistently shown the ability to improve intestinal barrier integrity under inflammatory conditions.
- TAE has been shown to reduce coccidiosis lesion scores, oocyst counts, morbidity and improve feed conversion.

A NOVEL APPROACH TO A HEALTHIER INTESTINE

Help each animal reach its full production potential. Establish the intestinal integrity and protection your animals need using our Gut Health Triple Check.

Kemin offers a range of nutritional solutions for raising healthy animals. We understand your need to raise healthy livestock and poultry that gives consumers the nutritional and health benefits they are looking for, while also returning a profit. Our products and services help you with nutrition, feed quality, gut health and pathogen control.

WWW.KEMIN.COM/GUTHEALTH
1-800-752-2864
What is Tannic Acid?

Species of gall wasps lay their eggs in the branches and twigs of oak trees. When the tree identifies an invasion by a possible parasite, a large knot (also known as a "Gallnut") is formed around the foreign body to isolate it and keep it from doing more damage. Tannic acid is created by the plant in the response mechanism.

Tannic acid, a plant-derived molecule extracted from plant parts such as tara pods, gallnuts from Rhus semialata, Quercus infectoria or Sicilian Sumac leaves, is a polyphenol. Polyphenols are naturally occurring compounds, secondary metabolites of plants, and are generally involved in defense against ultraviolet radiation or aggression by pathogens.

Tannic acid extract studies have indicated multiple modes of action to positively impact the health of livestock and poultry. Those include anti-inflammatory, antioxidant, anti-pathogenic and astringent activities.

Effects of Tannic Acid Extract on Intestinal Integrity

Trans-epithelial resistance (TER) is a measurement of the electrical resistance exerted by the tight junction proteins in the epithelial cell membrane.

Tannic Acid Extract (TAE) Effect on Pathogens

Figure 3. Tannic acid molecule.

The astringent activity of tannic acid positively impacts the small intestine. When delivered to the small intestine, tannic acid can contract the mucus membrane. Tannic acid may also constrict the capillaries, which can then prevent leakage.

The anti-pathogenic benefits of tannic acid are seen by the molecule acting directly on the organism to inactivate it and not allow for the pathogen to grow. Studies also suggest anti-viral activity of tannins by not allowing the virus to attach to cells.

References: