

# Trusted Friend of the Bio - World

## Introduction:

Global potential for animal feed acidifiers and are on rise due to higher demand for top quality poultry, pork and beef. Stable demand from developed countries for meat as well as meat products coupled with escalating consumption in the developing world, improving living standards, and a swelling population is expected to propel the worldwide demand for animal feed additives. Further, ban on animal feed antibiotics has thrown the spotlight on acidifiers as one of the next most feasible and functional alternative.

This challenge has led Advanced Biotech's research team to develop a new novel product - Acidifee, capable of reducing the gut pH and also suppressing the pathogenic bacteria. Use of Acidifee has been proven to be of significant help in improving the performance of all species.

## What is Acidifee?

Acidifee is a unique a acidifier that reduces the pH value of the gut contents and maintains its acidifier activities throughout the GIT, thus helping digestion and absorption of nutrients in a more effective way.

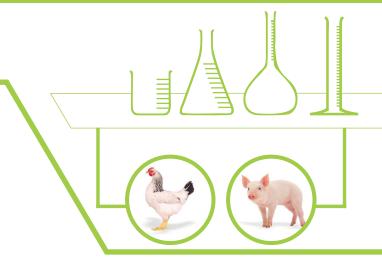
Acidifee is an ideal combination of selected organic acids like propionic, benzoic acid, butyric acid, acetic acid, citric acid & malic acid in acid treated base. It promotes growth and improves feed efficiency and control's enteropathogen's. Its use also improves the growth of lactobacillus spp. and other beneficial organisms in GIT.

#### Mechanism of Acidifee:

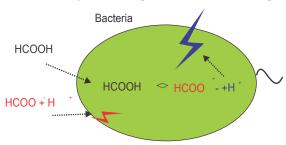
The antimicrobial activity of organic acid component in Acidifee is related to reduction in pH and its ability to dissociate, which is determined by the pKa value of the respective acid and the pH of the surrounding environment. The organic acids are lipid soluble in undissociated form. The more the number of undissociated form of organic acids, better will be the efficacy. Hence, the selection of organic acid is very critical in determining the efficacy of the product.

# **Function of Acidifee:**

Firstly, the undissociated form of the organic acid penetrates into the cell membrane which involves the following steps.



- The acid dissociates inside the bacterial cell
- The H+ (proton) deceases pH value of the cell. The bacteria use its energy resources trying to remove the protons and dies.
- Anions of organic acids deactivate RNS transferase enzyme, which damage nucleic acid multiplication process eventually resulting in death of the organism.



## **Benefits:**

- Control of pathogenic organisms such as Salmonella spp. and E.coli in feed and effectively control their presence in gastrointestinal tract.
- Assist with pH Modulation in the Stomach.
- Acidification favors growth of Acidophilus bacterial flora that prevents growth of pathogens.
- Improvement of weight gain and FCR.
- Reduces Diarrhea
- Sanitization of feed's thus increasing its storage time.
- Provides clean environment and healthy production.

## Dosage:

Broilers: 500g to 1 Kg / ton of feed.

Layers: 500g / ton of feed

Breeders :1-2Kg per ton of feed. **OR** 1-3ml per 10 litre of water depending on the quality of water.

**Shelf Life:** Acidifee is stable for 24 months from the date of manufacture.

**Packaging:** Acidifee is available in 1litre, 5litre, 30litre and 25Kg Paper bags.

The information and data contained herein has been compiled based on information we believe reliable. Users should throughly test all applications and independently conclude satisfactory performance before commercializations, as these recommendations are non-binding. User's assume all liabilities for use of the Products. We are not liable for any advice which we may have failed to give.

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