the most natural way to improve production

acidbac® is an excellent natural production stimulant and alternative to antibiotic growth promoters

organic acids, a natural alternative

Organic acids are an excellent **natural alternative to antibiotics** as growth promoters thanks to their many properties:

- They have **antifungal and antibacterial properties** that help to preserve feed
- **Acidification** of the diet augments gastric proteolysis, digestibility of amino acids and proteins, and mineral absorption.
- They inhibit intestinal bacteria, reduce toxic bacterial metabolites (ammonia and amines) and reduce intestinal pathogen counts (*E.coli* and *Salmonella*). They promote intestinal proliferation of *Lactobacillus*.
- In general, they promote **balanced intestinal flora** and reduced pathogenic bacteria, thereby promoting the preservation of an unimpaired intestinal epithelium.

acidbac®: a natural digestive system acidifier

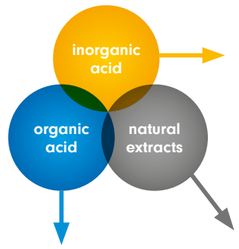
acidbac® is an advanced natural digestive system acidifier, designed using a combination of organic acids, inorganic acids and natural extracts to **improve digestive function** by decreasing stomach pH and stimulating enzyme reactions in digestion.

This digestive effect is particularly **beneficial in young animals**, which still have an immature digestive system and secrete digestive enzymes and hydrochloric acid in insufficient amounts.

acidbac® **is an excellent complete growth stimulant** since in addition to its acidifying properties, it has a powerful bactericidal effect and helps to regulate flora and intestinal motility.

acidbac®: multiple combined effect

acidbac® maximises the properties of its main ingredients, which act in combination during the digestive process:



acidifier

- Due to its **acidifying** power in the digestive system, it effectively **stimulates enzyme reactions** in digestion.
- It **reduces the intestinal pH**, thereby allowing organic acids to recover their undissociated form.

bactericide

- In acidic environments such as the stomach they act in their **undissociated** form (R-COOH).
- In environments with a higher pH, they adopt their **dissociated form** ($R\text{-}COO^-$), which prevents them from being able to cross the bacterial cell wall by themselves.

bactericides

- They increase the permeability of the **bacterial cell wall**.

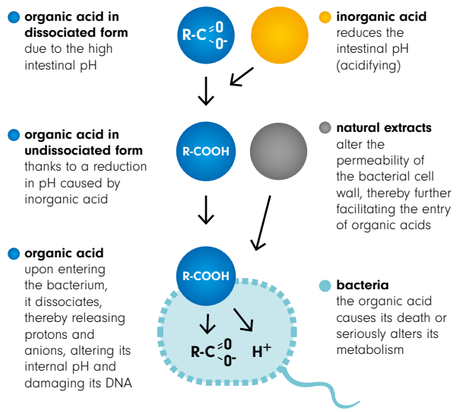
anti-urease agents

- They reduce **ammonia formation**.

surfactants

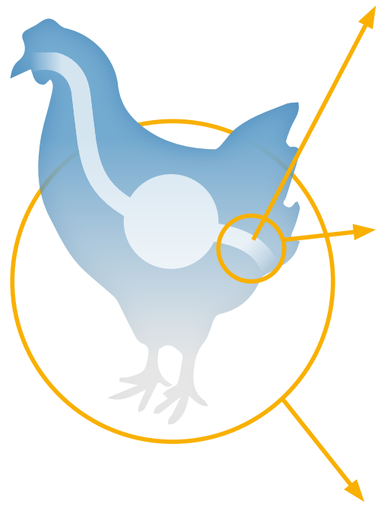
- They facilitate **fat absorption**.

combined synergistic effect in the intestine



acidbac® in broilers

The results of various tests have demonstrated that supplementation with **acidbac®** improves production parameters, nutrient use, serum metabolite level, carcass composition, microbial flora and intestinal morphology.



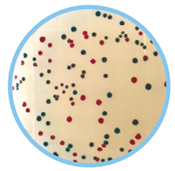
Studies performed with broilers fed for 40 days from the day of birth with two different diets:

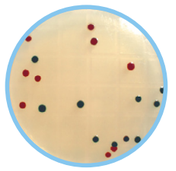
- A basic diet with no supplements (control)
- A diet supplemented with **acidbac®** (1 kg acidbac/MT of feed)

1. Intestinal microbial flora

- A significant reduction in *E. coli* and total coliforms.
- An increase in *Lactobacillus spp*.

Coliform and lactobacillus count in the intestinal contents

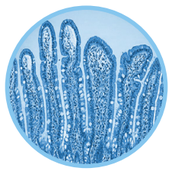




	Control diet	Diet with acidbac®
● *Escherichia coli*	32	7
● Other coliforms	67	12
Lactobacillus spp.	10	180

2. Intestinal microvilli

An increase in the **mean length** of the microvilli in the duodenum and the ileum, thereby enabling greater nutrient absorption.



Mean length	Control diet	Diet with acidbac®
Ileum	799,7 µm	821,9 µm
Duodenum	1 513,3 µm	1 524,4 µm

3. Weight gain and conversion rate

Body weight
Total weight on day 40

Weight gain
In 40 days

Conversion rate
After 40 days