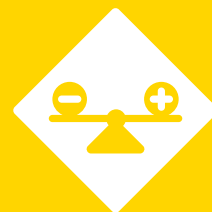


ULTIMATE ACID



Effective digestion

- ◆ Supports natural gastric barrier
- ◆ Assists in better FCR by supporting digestion and utilization of nutrients
- ◆ Supports intestinal flora and gut function
- ◆ Stimulates the young animal in body development



Balance



What is Ultimate Acid?

Ultimate Acid is based on a synergistic blend of organic acids and copper and zinc chelates. Ultimate Acid supports the natural barrier in the crop and gizzard of poultry. It stimulates the nutrient digestion and utilization. Ultimate Acid also helps to maintain an optimal balance between beneficial and pathogenic bacteria and supports the development of the intestinal tract. An optimal gastrointestinal functionality is essential for sustainable animal production. Immediately after hatching the intestines are developing rapidly. At an early age the body is still

developing which makes the animal more susceptible for pathogenic microorganisms like *E. coli* and *Salmonella*. Also stressful situations (e.g. feed changes, climate changes, vaccination or antibiotic treatment) has implications for the functioning of the gastrointestinal tract. During moments of stress, gastric pH increases and less enzymes are released. This results in undigested nutrients which cannot be absorbed into the body system and a disturbed microbial balance.

When to use?

- ◆ Disturbed intestinal flora and intestinal function
- ◆ Wet litter
- ◆ Bacterial infection

Mode of action

Ultimate Acid is a liquid acidifier for drinking water and liquid feed based on a synergistic combination of buffered organic acids and the trace elements copper and zinc in chelate form.

Organic acids

As shown in Figure 1, organic acids lower the gastric pH leading to increased protein digestion and increased pancreas secretion. This results in a higher nutrient digestion. In addition, the low pH in the crop and gizzard acts as a defense mechanism to reduce pathogenic bacteria (Figure 2). This increases the natural barrier of the stomach. The organic acids stimulate the growth of beneficial intestinal bacteria, which results in reduced pathogenic bacteria. The pathogenic bacteria cause infections to the intestinal wall, resulting in damage and ultimately limiting the absorption of nutrients. The growth of beneficial bacteria results in a healthier gastrointestinal tract with optimum digestion and absorption of nutrients. It also supports the intestinal barrier to protect the body against invasion of pathogenic bacteria. Finally, Ultimate Acid has a conserving effect and is the most effective with a pH of drinking water below 4.

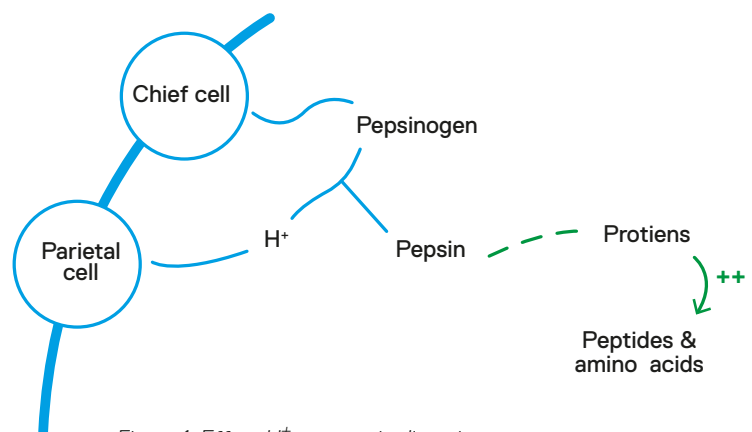


Figure 1: Effect H^+ on protein digestion.

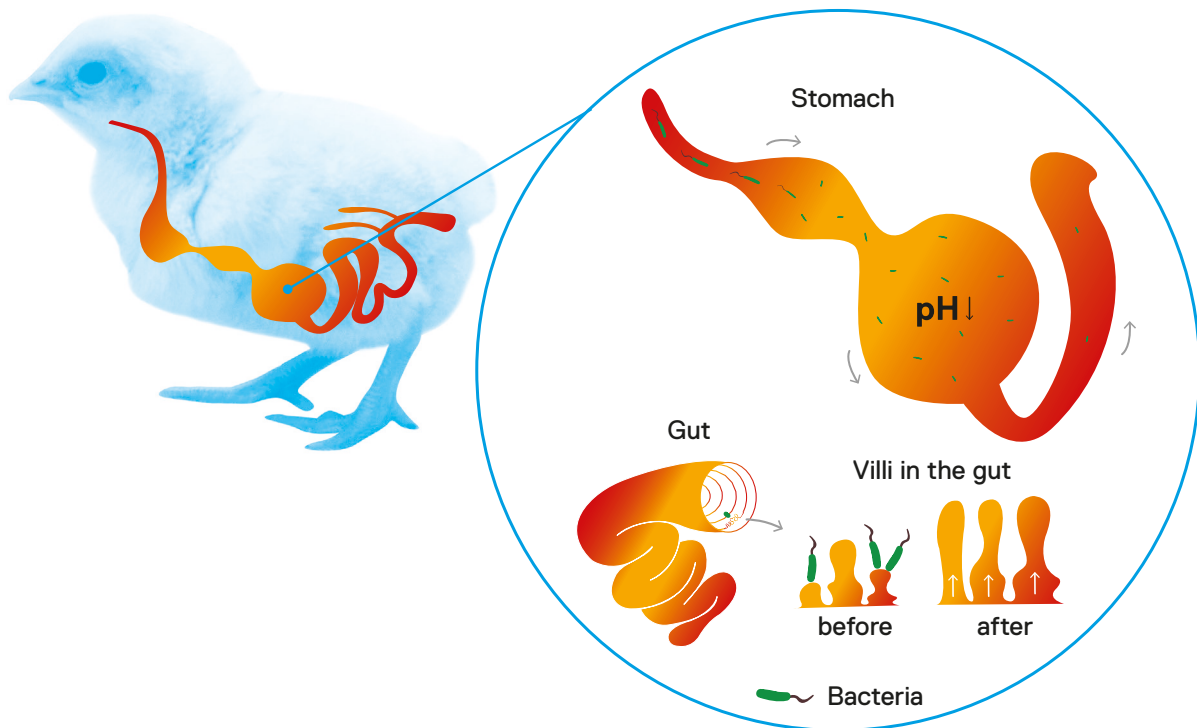


Figure 2: Mode of action of organic acids in the gastrointestinal tract.

Organic trace minerals

Ultimate Acid contains copper and zinc chelates. The copper and zinc ion are bound to an organic chelate and therefore chelates are much easier absorbed than, for example, sulphates or oxides, which are inorganically bound minerals (Figure 3).

Copper plays a major role in different metabolic processes (e.g. important role in immunity and production of red blood cells) and has a strong antibacterial effect. It is beneficial especially in periods of high infection pressure and copper is known for its anti-inflammatory effect.

Zinc is an essential trace mineral with a wide range of biological roles. It plays an important role in the construction and regulation of enzymes and activation of the immune system. Zinc is vital for growth, development and reproduction.

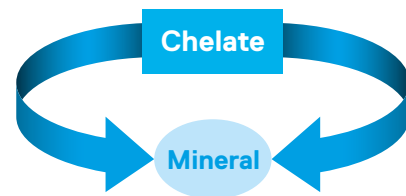


Figure 3: Claw mechanism of chelates



Effective digestion

- ◆ Supports natural gastric barrier
- ◆ Assists in better FCR by supporting digestion and utilization of nutrients
- ◆ Supports intestinal flora and gut function
- ◆ Stimulates the young animal in body development
- ◆ Lowers gastric pH and stimulates protein digestion
- ◆ Supports production of digestive enzymes
- ◆ Stimulates growth and activity of beneficial microbiota
- ◆ Improves active resistance
- ◆ Preserves the drinking water by lowering the pH level

Dosage

1 - 2 litre per 1000 litre water.

Dosage depends on pH of drinking water after addition of the product. pH should be below 4, target is 3.8.

Packaging

20 kg can
250 kg drum
1100 kg IBC



Kanters Health Concept

Kanters provides total solutions to the farmer. To achieve this solutions are needed that make a positive contribution to the recovery of animal health and improve results. For all kinds of situations and health issues Kanters offers an extensive range of liquid nutritional supplements applied through drinking water.

Our solutions are divided into five functional groups. Within each functional group, product choice may vary depending on the species, the type of animal, as well as farm specific situations. An optimal customized approach will be based on a specific farm analysis. You can always contact us to make arrangements for such an analysis.



Hygiene



Balance



Care



Gut health



Performance