Bioluence®

Bioluence Products in Poultry Industry

Poultry
Industry

Engineering Nature for a Brighter Future


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Engineering Nature for a Brighter Future

Bonda Faravar Company, operating under the brand name Bioluence, stands as the sole enzyme manufacturer in Iran and the largest production facility of its kind in the Middle East. Additionally, Bioluence is the leading probiotics manufacturer in the region, boasting an expansive production area of 8,000 square meters. This space is divided into two dedicated units for enzyme and probiotics production, complemented by 1,700 square meters of state-of-the-art clean rooms located in Safadasht Industrial Town.

Supported by a dedicated research and development team, strategic collaborations with experienced domestic and international consultants, and a workforce of over 300 highly skilled professionals across various disciplines, Bioluence has successfully delivered high-quality enzyme and probiotics products to meet the diverse needs of multiple industries; including but not limited to: detergents, food and dairy, meat processing, flour and bakery, feed for livestock and poultry, alcohol and starch production, as well as leather and textiles.

ISO 9001 ISO 14001 ISO 22000 ISO 45001

GMP HACCP FSSC 100% HALAL FOOD CERTIFIED HALAL CERTIFIED KOSHER

Phytase enzyme

BONFEZYME

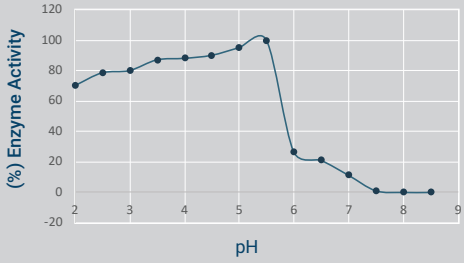
Phytase enzyme

Everything you expect from an ideal Phytase.

Product Introduction

BONFEZYME enzyme has four main features that make it one of the most effective Phytases available. This enzyme is a 6-Phytase derived from Escherichia coli, giving it a high ability to release Phosphorus from Phytate. It is also heat-resistant, maintaining %90 of its activity under pelleting temperature conditions. Additional characteristics include resistance to pH fluctuations in the digestive system and digestive enzymes, enabling it to maintain functionality throughout the digestive tract. Consequently, BONFEZYME effectively neutralizes the anti-nutritional effects of Phytic acid, directly impacting feed cost reduction and preserving nutritional value.

Enzymatic Properties

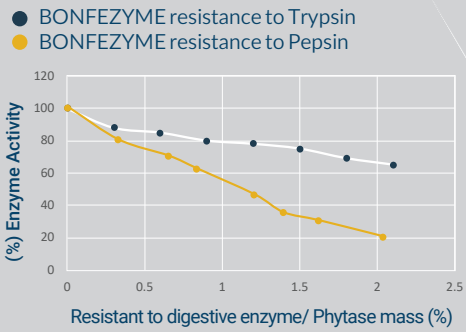


Resistance to pH changes

pH Resistance BONFEZYME maintains its function against pH changes in different parts of the digestive system.

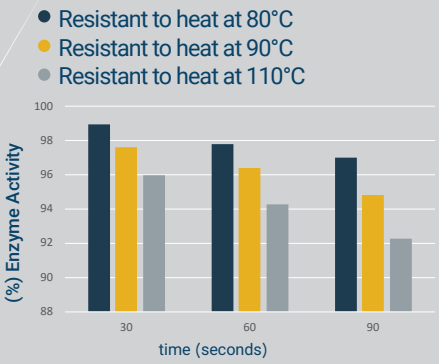
Optimal pH activity (over %80):

2.5 to 5



Resistant to Digestive Enzyme

Bonfezyme maintains its stability against digestive enzymes (Pepsin and Trypsin).



Heat Resistance

Over %90 of Bonfezyme's activity is retained at a temperature of 80 to 90 degrees Celsius (Pelletizing temperature).

Dosage and Replacement of Inorganic Phosphorus Sources for Bonfezyme

- The recommended dosage may vary based on feed composition and nutritionist's advice.
- Adding this product at the base dosage can replace 5 to 7 kg of Dicalcium phosphate in poultry feed, consequently reducing the overall feed cost.

50-100 g
per ton of feed

%40 to %80 Replacement of Inorganic Phosphorus

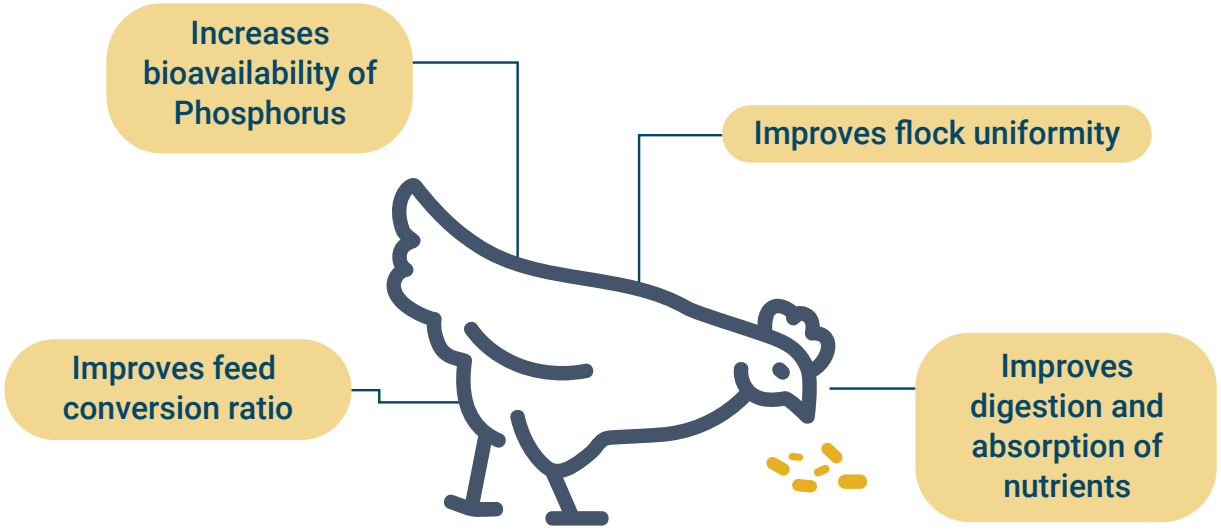
Broiler Poultry

30-50 g
per ton of feed

%0 to %80 Replacement of Inorganic Phosphorus

Laying and Breeding Poultry

Benefits of Use



Active Ingredients
Phytase enzyme
10,000 U/g

Packaging
20 kg three-layer
Alufoil bags

Product Form
Powder and
Granules

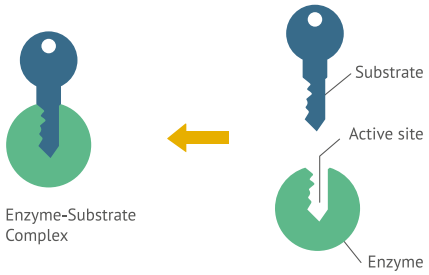
Shelf Life
24 months after
production

Multi Enzyme

BONFEED

Multi Enzyme

The Key to unlock the hidden nutritional treasures in feed



Product Introduction

BONFEED multi-enzyme is designed exclusively by our company, Bioluence, based on the dietary needs of poultry and considering the physiological characteristics of their digestive system, using modern fermentation methods. This product, with its targeted enzyme composition and synergistic effects of the enzymes used, improves feed conversion ratio, increases final weight, and enhances resistance to diseases.

Benefits of Use

- Synergistic effect of enzymes in multi enzyme formula compared to using single enzymes (4 = 1 + 1 + 1)
- Improves digestive performance of poultry, especially at the early stages of rearing
- Enhances litter quality and farm environment
- Increases feed efficiency in corn, soybean meal, wheat, and sorghum-based diets
- Promotes weight gain and flock uniformity
- Improves feed conversion ratio and reduces feed costs

Recommended Dosage

Active Ingredients
Alpha-amylase, Protease & Xylanase

Packaging
20 kg three-layer Alufoil bags

Product Form
Powder and Granules

Shelf Life
24 months after production

Dosage	Target Animal
50-100 grams per ton of feed	Laying and Breeding Poultry
100 grams per ton of feed	Broiler Poultry

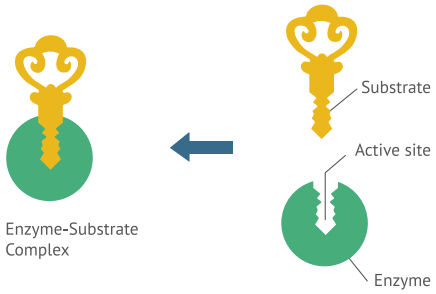
Dosage may vary based on diet composition and nutritionist's recommendation.

Multi Enzyme

BONFEED Plus

Multi-Enzyme Containing Phytase

The Key to unlock the hidden nutritional treasures in feed



Product Introduction

BONFEED Plus Multi Enzyme is a multi enzyme product containing Phytase, designed by Bioluence using modern fermentation methods to improve feed efficiency, reduce diet costs, and increase economic returns in the poultry industry. The combination of Phytase with other enzymes that enhance poultry feed digestion creates a synergistic effect, boosting enzyme effectiveness.

Benefits of Use

- Synergy between Phytase and other enzymes (5 = 1 + 3)
  (The positive effects of BONFEED Plus are greatly amplified due to the synergistic impact of enzymes on each other, far exceeding the effects of single enzymes.)
- Increased weight gain and improved flock uniformity
- Improved feed conversion ratio and reduced feed costs
  (reducing the need for costly dietary components like energy, protein, Phosphorus,etc.)

Recommended Dosage

Active Ingredients
Alpha-amylase, Protease, Xylanase, and Phytase

Packaging
20 kg three-layer Alufoil bags

Product Form
Powder and Granules

Shelf Life
24 months after production

Dosage	Target Animal
50-100 grams per ton of feed	Laying and Breeding Poultry
100 grams per ton of feed	Broiler Poultry

Dosage may vary based on diet composition and nutritionist's recommendation.

Single Enzyme

PHYTASE

EC: 3.1.3.26

Product Introduction

Bioluence Pure Phytase is a 6-Phytase enzyme sourced from Escherichia coli, with a high capacity for releasing Phosphorus from Phytate. This enzyme effectively eliminates the anti-nutritional effects of Phytic acid, directly reducing feed costs while preserving its nutritional value.

Benefits of Use

- Maximized release of non-absorbable Phosphorus from Phytate
- Enhanced digestion of other nutrients by reducing Phytate-nutrient complex formation
- Reduced environmental impact from Phosphorus excretion
- Improved feed conversion ratio and reduced feed costs

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Phytase	200,000 U/g	25-90	25-90	5.5	2-6.5	2.5

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients
Phytase enzyme with an activity of 200,000 U/g

Packaging
1kg three-layer Alufoil bags

Product Form
Powder

Shelf Life
24 months after production

Single Enzyme

PROTEASE

EC: 3.4.21.112

Product Introduction

Bioluence pure Protease enzyme is a type of Proteolytic enzyme that can hydrolyze plant and animal proteins into peptides and amino acids, resulting in improved protein digestion in the intestine and enhanced production performance in birds. Bioluence Protease is produced and formulated through advanced bacterial strain fermentation, ensuring high efficiency in digesting consumed feed.

Benefits of Use

- Aids in better protein digestion and reduces protein level required in feed.
- Prevents undigested proteins from entering gastrointestinal tract, thus improving gut health.
- Allows the use of various protein sources in feed formulations.
- Enhances feed conversion ratio and reduces feed costs.

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Protease	100,000 U/g	37	25-80	6.5	2-8	50-100

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients
Protease enzyme with an activity of 100,000 U/g

Packaging
1kg three-layer Alufoil bags

Product Form
Powder

Shelf Life
24 months after production

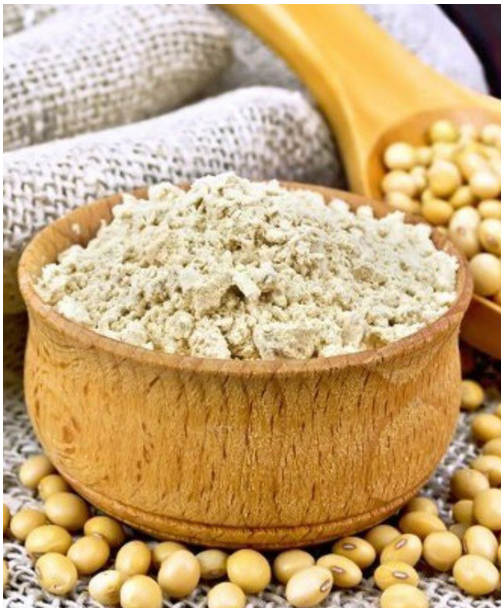
Single Enzyme

ACID-BETA MANANASE

EC: 3.2.1.78

Product Introduction

Pure Acid-Beta Mananase Enzyme Sourced from bacteria, is crucial in poultry industry as it helps digest and break down Beta-mannans, which are anti-nutritional factors in poultry feed. This action promotes the growth of beneficial bacteria in gut and prevents the growth of harmful bacteria.



Benefits of Use

- Enhances disease resistance by supporting beneficial gut bacteria
- Improves digestibility and performance
- Eliminates the anti-nutritional effects of Mannans in feed (especially Soybean)
- Enhances feed conversion ratio

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Acid-Beta Mananase	50,000 U/g	37	25-80	5.5	2-8	50-100

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients

Acid-Beta Mananase enzyme with an activity of 50,000 U/g

Packaging

1kg three-layer Alufoil bags

Product Form

Powder

Shelf Life

24 months after production

Single Enzyme

ALPHA AMYLASE

EC: 3.2.1.1

Product Introduction

Pure Alpha-Amylase Enzyme Sourced from bacteria, this Glycoside hydrolase enzyme plays a significant role in Carbohydrate digestion by breaking down Polysaccharide chains into smaller components. It improves the digestibility of high-starch feed, boosting the productivity of farm animals.

Benefits of Use

- Enhances digestibility of long-chain Polysaccharides like starch.
- Reduces the need for energy sources in the diet.
- Increases production and growth.
- Improves gastrointestinal health.

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Alpha-Amylase	100,000 U/g	37	35-80	5.5	4.5-8	5-10

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients

Alpha-Amylase enzyme with an activity of 50,000 U/g

Packaging

1kg three-layer Alufoil bags

Product Form

Powder

Shelf Life

24 months after production

Single Enzyme

XYLANASE

EC: 3.2.1.8

Product Introduction

Pure Xylanase Enzyme is highly effective in breaking down anti-nutritional factors like Hemicellulose and Xylan, neutralizing the harmful effects of non-starch Polysaccharides (NSP). It ultimately enhances digestion and gut health in birds and optimizes feed efficiency for poultry.

Benefits of Use

- Reduces the viscosity of gut contents, especially in wheat, corn, and sorghum-based diets.
- Limits the growth of anaerobic microorganisms like Clostridium.
- Hydrolyzes xylan, balances gut Microflora, and helps maintain gut health.
- Reduces energy sources in the diet and feed costs.

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Xylanase	100,000 U/g	30-70	40-55	5	3-6	5-10

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients
Xylanase enzyme with an activity of 100,000 U/g

Packaging
1kg three-layer Alufoil bags

Product Form
Powder

Shelf Life
24 months after production

Single Enzyme

BETA GLUCANASE

EC: 3.2.1.6

Product Introduction

Pure Beta-Glucanase Enzyme sourced from bacteria, is a group of Carbohydrate enzymes which break the β-1,3 and β-1,4 Glycosidic bonds in Beta-glucans, reducing viscosity and eliminating the anti-nutritional effects of Beta-glucans in poultry feed. It can enhance feed quality and production performance.

Benefits of Use

- Reduces viscosity of gut contents, increases feed intake, and improves production.
- Enhances gastrointestinal health.
- Improves digestibility of the anti-nutritional Beta-glucan.
- Increases the energy value of feed.

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Beta-Glucanase	50,000 U/g	37	30-75	5	3-6.5	5-10

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients
Beta-Glucanase enzyme with an activity of 50,000 U/g

Packaging
1kg three-layer Alufoil bags

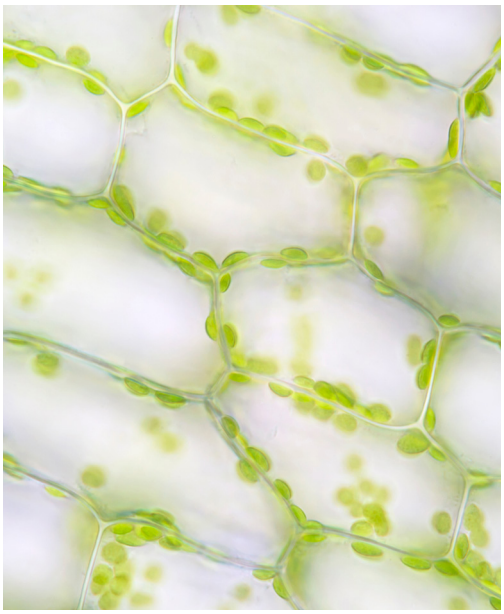
Product Form
Powder

Shelf Life
24 months after production

Single Enzyme

CELLULASE

EC: 3.2.1.4



Product Introduction

Cellulase Enzyme sourced from the fungus Aspergillus niger, this enzyme includes Beta-glucosidase, Exocellulase, and Endocellulase, working together to break down Cellulose. This product can degrade cell wall structures, eliminate anti-nutritional factors, and improve feed efficiency.

Benefits of Use

- Allows the use of unconventional raw materials in the diet by improving plant cell wall digestibility.
- Stimulates endogenous enzyme secretion.
- Enhances nutrient digestibility.
- Increases the nutritional value of feed.

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Cellulase	30,000 U/g	45	30-80	5.5	4-8	2-5

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients
Cellulase enzyme with an activity of 30,000 U/g

Packaging
1kg three-layer Alufoil bags

Product Form
Powder

Shelf Life
24 months after production

Single Enzyme

LIPASE

EC: 3.2.1.6

Product Introduction

Lipase Enzyme is a Hydrolase enzyme cleaves Ester bonds in Triglycerides, producing Mono- and Diacylglycerols, free fatty acids, and Glycerol. This process releases short-chain fatty acids and free fatty acids. Lipases hydrolyze Triglycerides, Diglycerides, and Monoglycerides at the oil-water interface, with activity enhanced by surface activation mechanisms.

Benefits of Use

- Improves digestion and absorption of fats and fat-soluble vitamins.
- Enhances gastrointestinal health.
- Increases the energy value of feed.
- Boosts production performance.

Recommended Dosage

Product name	Activity	Enzyme Properties				Dosage (grams per ton of feed)
		Temperature		pH		
		Effective Temperature (°C)	Optimal Temperature (°C)	Effective pH	Optimal pH	
Lipase	100,000 U/g	35	30-60	6	4-8.5	5-10

Dosage may vary based on diet composition and nutritionist's recommendation.

Active Ingredients
Lipase enzyme with an activity of 100,000 U/g

Packaging
1kg three-layer Alufoil bags

Product Form
Powder

Shelf Life
24 months after production

Probiotic

GUTROCARE Poultry

Poultry Probiotic

Probiotics are a necessity, not just an additive.

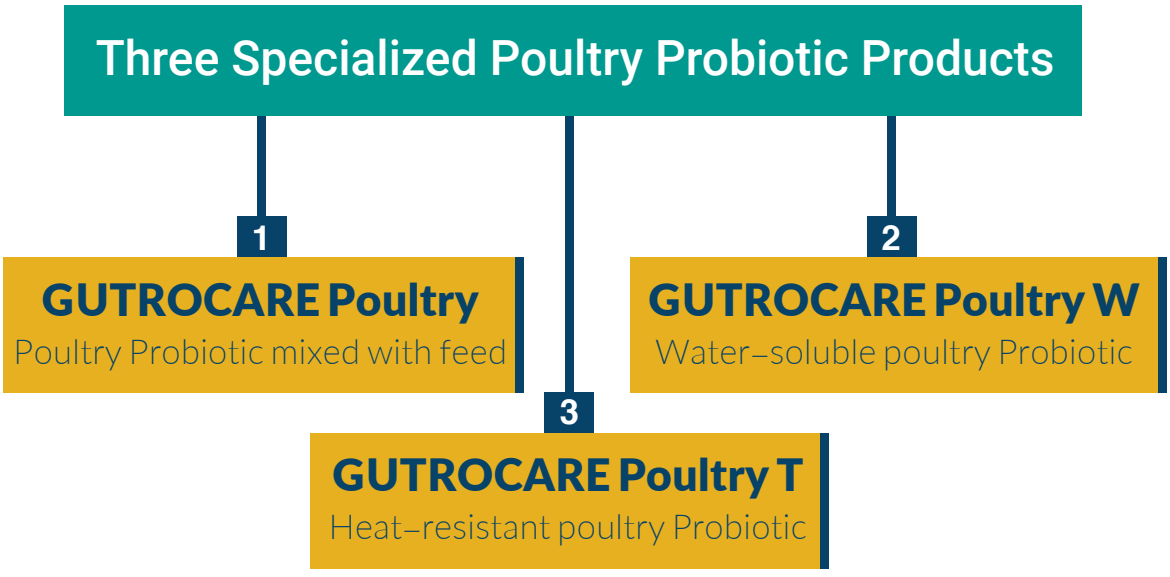
Product Introduction

This is a specialized Probiotic supplement for poultry, composed of natural Probiotic strains found in the digestive system. Using this product helps establish a complete and healthy gut microbiota in poultry, which enhances the growth and health of broiler and layer chickens from the beginning to the end of their rearing and production cycles. Additionally, it reduces the need for antibiotics during this period.

Using this product throughout the entire rearing period, especially during the early stages of broiler chicken growth, is highly recommended.

Benefits of Use

- Improved weight gain and feed conversion ratio
- Strengthened immune system and enhanced immune response during disease outbreaks or vaccination
- Reduced antibiotic consumption
- Decreased digestive system-related diseases
- Lower mortality rates
- Reduced Ammonia gas production, leading to less bedding moisture



Probiotic

1

GUTROCARE Poultry

Poultry Probiotic Mixed with Feed

Active Ingredients

Bacterial Strains	Minimum Effective Count
Enterococcus faecium, Lactobacillus plantarum, Lactobacillus bulgaricus, Lactobacillus acidophilus, Lactobacillus rhamnosus, Bifidobacterium bifidum, Streptococcus thermophilus	1×10^{11} CFU/kg

Recommended Dosage

Dosage	Age	Poultry Type
Broiler chickens	Starter: 1–10 days	500 g/ton of feed
	Grower: 10–24 days	400 g/ton of feed
	Finisher: 24 days onward	300 g/ton of feed
Other meat birds	Up to 21 days	300 g/ton of feed
	21 days onward	200 g/ton of feed
Layers and breeder hens	1–4 weeks	500 g/ton of feed
	5–18 weeks	300 g/ton of feed
	19–30 weeks	400 g/ton of feed
	31 weeks onward	300 g/ton of feed

Packaging

1kg three-layer Alufoil bags

Product Form

Powder

Shelf Life

24 months after production

Probiotic

2

GUTROCARE Poultry W

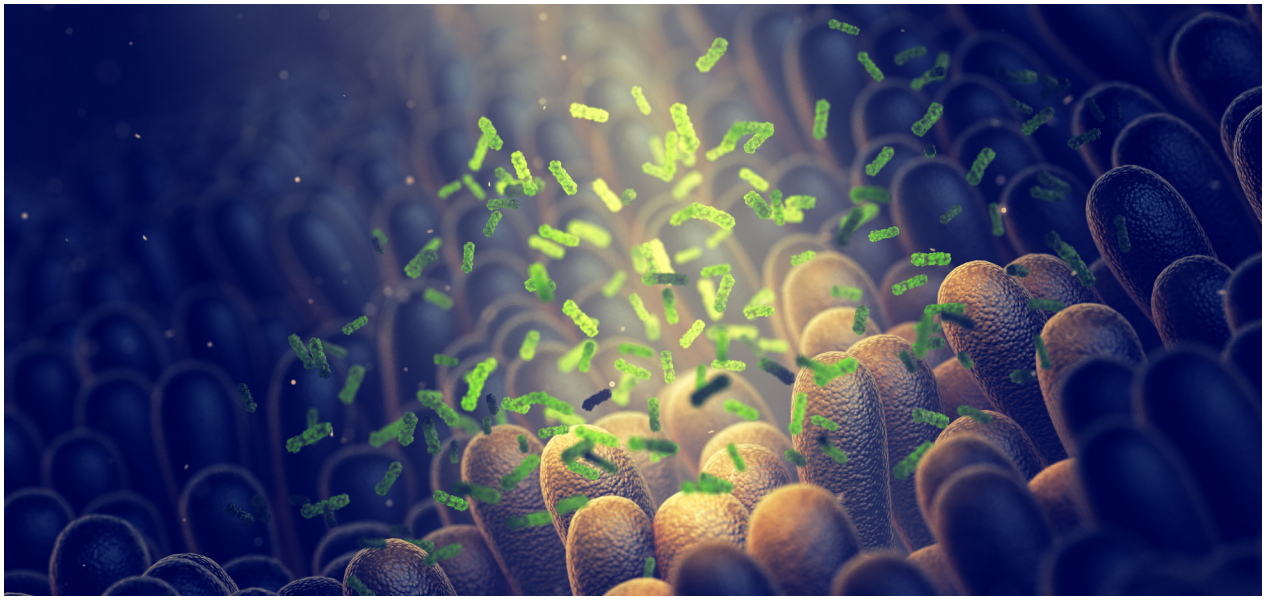
Water-Soluble Poultry Probiotic

Active Ingredients

Bacterial Strains	Minimum Effective Count
Enterococcus faecium, Lactobacillus plantarum, Lactobacillus bulgaricus, Lactobacillus acidophilus, Lactobacillus rhamnosus, Bifidobacterium bifidum, Streptococcus thermophilus	1×10^{11} CFU/kg

Recommended Dosage

Dissolve 100g of Probiotic powder in 1 liter of water, then add it to 1,000 liters of water.



Packaging
1kg three-layer
Alufoil bags

Product Form
Powder

Shelf Life
24 months after
production

Probiotic

3

GUTROCARE Poultry T

Heat-resistant poultry Probiotic

Active Ingredients

Bacterial Strains	Minimum Effective Count
Bacillus subtilis, Bacillus licheniformis, Bacillus coagulans	2 × 10^{11} CFU/kg

Recommended Dosage

Dosage	Age	Poultry Type
Broiler chickens	Starter: 1–10 days	500 g/ton of feed
	Grower: 10–24 days	400 g/ton of feed
	Finisher: 24 days onward	300 g/ton of feed
Other meat birds	Up to 21 days	400 g/ton of feed
	21 days onward	300 g/ton of feed
Layers and breeder hens	1–4 weeks	500 g/ton of feed
	5–18 weeks	300 g/ton of feed
	19–30 weeks	400 g/ton of feed
	31 weeks onward	300 g/ton of feed

Packaging

1kg three-layer Alufoil bags

Product Form

Powder

Shelf Life

24 months after production

Acidifier

ACIDIFIER +4

The Missing Piece of Digestive Performance Puzzle

Product Introduction

The product Acidifier 4^{+}, containing four organic acids along with copper, zinc, and sodium, regulates pH of poultry's digestive tract, strengthens gut microbiota, and reduces digestive diseases. This liquid product, when added to poultry drinking water, not only enhances digestive health; but also prevents the formation of bacterial and fungal biofilm deposits in drinking water lines, thereby improving water quality.

Benefits of Use

- Reduces pathogen growth in gut by regulating pH and enhancing gut microbiota
- Prevents digestive diseases
- Improves nutrient digestibility and absorption
- Enhances water quality and prevents biofilm formation in drinking lines
- Improves eggshell quality
- Reduces microbial contamination in chicken carcasses and eggs

Recommended Dosage: 250 to 300cc per 1000 liters of drinking water.

Active Ingredients
Formic acid, propionic acid, lactic acid, citric acid, copper chloride, zinc, and sodium.

Packaging
5-liter gallon

Product Form
Liquid

Shelf Life
24 months after production

Usage Instructions for Acidifier:

- At the beginning of breeding period, ensure proper cleaning of waterlines before using liquid acidifier.
- Do not use acidifier in drinking water 24 hours before or after the administration of vaccines and medications.
- The use of this product alongside probiotics can have a better effect on the digestive performance of poultry. Probiotics mixed with feed can be used simultaneously with liquid acidifier. However, it is recommended not to use this product simultaneously with water-soluble probiotics.

Mycotoxin binder

TOXIN BINDER1

Product Introduction

Bioluence's Toxin Binder, containing oligosaccharides, yeast cell walls, activated charcoal, and other toxin-absorbing substances, can bind to mycotoxins in feed and remove them from the absorption pathways of livestock and poultry. This product can reduce the effects of fungal toxins in feed under conditions of feed quality deterioration and contamination, as well as prevent fungal contamination and related diseases in livestock and poultry.

Benefits of Use

- Strengthening gut microbiota
- Reducing mycotoxins and improving feed quality
- Reducing and preventing issues caused by fungal toxins
- Reducing flock mortality
- Improving feed conversion ratio

Dosage and Method of Use: 500 to 1500 grams per ton of feed, depending on the recommendation of a specialist and the type of animal.

Active Ingredients

Mannan oligosaccharide, beta-glucan, calcium bentonite, sodium bentonite, activated charcoal, and probiotics.

Packaging

1kg three-layer Alufoil bags

Product Form

Powder

Shelf Life

24 months after production

Single Strains Probiotic Table

Raw Material Names	Physical Form	Packaging
Lactobacillus rhamnosus	powder	1 kg pouch
Lactobacillus reuteri		
Lactobacillus plantarum		
Lactobacillus paracasei		
Lactobacillus casei		
Lactobacillus brevis		
Lactobacillus salivarius		
Lactobacillus acidophilus		
Lactobacillus fermentum		
Lactobacillus buchneri		
Lactobacillus bulgaricus		
Lactobacillus helveticus		
Streptococcus salivarius		
Streptococcus thermophilus		
Enterococcus faecium		
Pediococcus acidilactici		
Bifidobacterium lactis		
Bifidobacterium longum		
Bifidobacterium bifidum		


Poultry
Industry

Bioluence

Poultry Industry

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