

# **PWH**

Livestock Health Care

**Solutions** 

### POULTRY FEED SUPPLEMENT

















PAUL VET HEALTHCARE (P) LTD.



Paul Vet Healthcare (P) Ltd was incorporated in 2001 with marketing tie up with a leading Indian Animal Healthcare Company. We've grown to be trusted by leading customers of poultry industry. Why? Well we're easy to work with because we're flexible, relaxed and we believe in blending creativity and productivity with being 100% dependable.

Now we are a multi-product, multi-faceted company, catering to a wide spectrum of Animal healthcare needs. We are having a vision to deliver effective, qualitative and safe healthcare products through stringent quality control to our respected customers.

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# **COLIDOMIX**® forte fm



Poultry Feed Supplement
A Unique and Powerful Animal Feed Supplement
for Growth and Better Performance



### COLIDOMIX forte fm

Poultry Feed Supplement
A Unique and Powerful Animal Feed Supplement for Growth and Better Performance

#### Gut & Respiratory Health - Key for Better Performance

Gut and respiratory tracts harbour billion of bacteria. Upon immunocompromised condition they flare up and affect digestive and respiratory systems. Thereby make these two vital systems underperformed.

#### Poor Physio - Anantomical Condition results into-

- Low weight gain
- High feed conversion
- · Chronic mortality
- Carcass condemnation



Consortium of antibiotic feed supplement keeps bacterial challenge low in digestive system and respiratory system

### **COLIDOMIX**<sup>®</sup> forte fm

Aids to reduce pathogenic loads in digestive and upper respiratory tracts-keeps the system functioning

COMPOSITION: Synergistic blend of Erythromycin Estolate, Metronidazole, Neomycin Sulphate,
Amikacin Sulphate, Zinc Oxide, Copper Sulphate and Anti-Bacterial Essential Oils.

Antibiotic	Antibiotic Group	Spectrum of Activity	Target Benefits
Erythromycin	Macrolide antibiotic	Effective against Mycoplasma, gram positive bacteria like Streptococcus, Staphylococcus, Pasteurella, Proteus, Pseudomonas, E.coli.	Aids to keep respiratory system optimally functional.
Amikacin sulphate	Aminoglycoside antibiotics	It is active against a broad spectrum of Gram- negative organisms, including pseudomonas, Escherichia coli and some Gram-positive organisms. Aminoglycoside antibiotics are bactericidal in action.	Amikacin is used clinically to treat serious Gram-negative infections. It is often used in settings where gentamicin-resistant bacteria are a clinical problem.
Neomycin	Aminoglycoside	Broad spectrum in activity. Enteritis causing bacteria like E.coli, Salmonella, Compylobacter.	Gut acting antibiotic growth promotor to prevent gut infections.
Metronidazole	Metronidazole	Effective against anaerobic bacteria like Clostridium, bacteriodes as well as GI protozoan infections.	Keeps checks & balance on opportunistic gastrointestinal pathogens.

#### **BENEFITS:**

- Supportive to control common gut pathogens
- Supportive to control common respiratory tract infections
- Zinc improves gut epithelial health and as supportive and controls diarrhoea
- · Copper sulphate acts as gut action antibacterial
- Improves overall health and performance

#### **USAGE RECOMMENDATION:**

250 - 500gm per ton of feed or as recommended by nutritionist.

PRESENTATION: 1 KG & 25 KG





### **PROTIMIX-BioMos 500**

BENEFITS OF DIETARY ANTIBIOTIC AND PROBIOTICS WITH NATURAL PREBIOTIC SUPPLEMENTATION FOR POULTRY

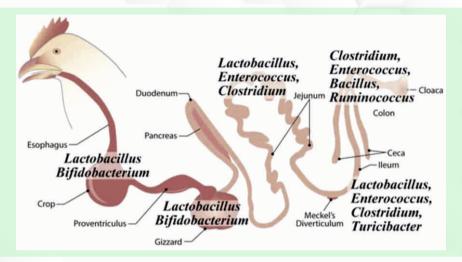
#### BENEFITS OF ANTIBIOTICS AS GROWTH PROMOTER

- ▲ Improve the growth and feed efficiency of broilers.
- ▲ Decrease flock variability.
- Increase the intestinal digestion and absorption of carbohydrates and fats.

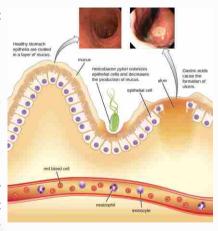


#### DISADVANTAGE OF USING ANTIBIOTICS AS GROWTH PROMOTER

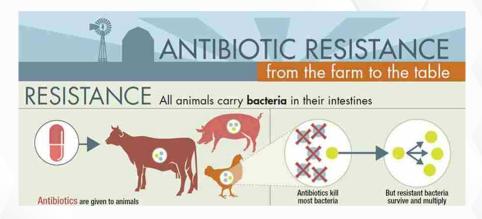
- Antibiotics Control and limit the Growth of Microbes (Clostridium Perfringens) known to be Detrimental to Poultry.
- □ Growth-Promoting Antibiotics limit the Growth and Colonization of Numerous Non- Pathogenic Species of Bacteria in the Gut, Including Lactobacillus, Bifidobacterium, Bacteroides and Enterococci and This may reduce the production of Antagonistic Microbial Metabolites, such as Ammonia, which adversely affect the Physiology of the host animal.



- Dietary inclusion of antibiotics reduces weight and length of the intestines.
- Reported reduced amounts of Lamina Propria, lymphoid tissue, reticuloendothelial cells, intestinal weight.
- Conventional birds consuming the antibiotic treatment had reduced amounts of ileum lamina propia and reticuloendothelial components almost similar to levels seen in the germ-free birds.
- A thinner intestinal epithelium in germ-free or antibiotic-fed animals may enhance nutrient absorption and reduce the metabolic demands of the gastrointestinal system.
- "Thinning" of the gastrointestinal walls tract may be due to the inhibition of the microbial production of polyamines and volatile fatty acids, known to increase enterocyte turnover rate and activity.

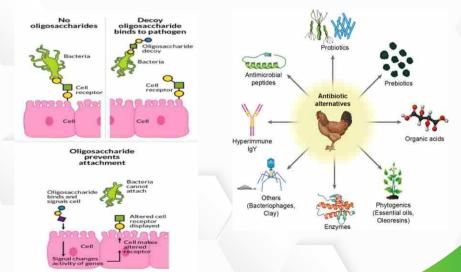


- This increased net energy committed to maintaining the luminal tissue comes at the expense of more productive purposes such as muscle accretion. The minimization of gastrointestinal bacteria may also ease the competition for vital nutrients between the bird and the microbes.
- Finally, antibiotics may reduce the adverse effects of immunological stress on growth performance by lowering the enteric microbial load. Over-stimulation of the host immune system by the resident microflora could impair the optimum growth and performance of the bird.
- Some antibiotics interfere with the building maintenance of the cell wall, while others interrupt proper protein translation at the ribosomal level.
- Development of Antibiotic resistance over prolonged usage.



#### PROBIOTICS MANNAN-OLIGOSACCHARIDES, BETAGLUCANS:

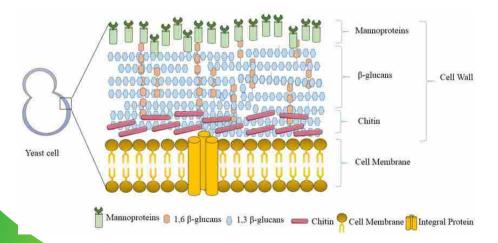
A Non-Pharmaceutical Alternative to Antibiotic Growth Promoter



- MOS and possibly other oligosaccharides, serve as alternate attachment sites for Gramnegative pathogens, thereby preventing attachment onto enterocytes and subsequent enteric infection.
- Adherence of the pathogenic microbe to the enterocyte cell wall is thought to be a prerequisite for the onset of infection.
- Adhesion leads to bacterial growth, entrapment and formation of mixed colonies, the entrapment of nutrients for growth, the concentration of digestive enzymes and toxins onto enterocytes, and the possible prevention of antibody attachment to the pathogenic cell.
- A Beta glucan play important role in synthesizing immune cells which improves immunity and prevents immuno suppression.

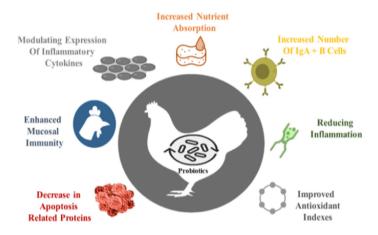
#### Yeast Cell Wall Composition and Mechanism of Action

- ★ The cell wall of the yeast organism consists of carbohydrates and proteins in the form of chained and branched structures of glucose, mannose, and N-acetylglucosamine.
- Mannanoligosaccharides, derived from Mannans on yeast cell surfaces, act as high affinity ligands, offering a competitive binding site for the bacteria.
- A Pathogens with the mannose-specific Type-1 fimbriae adsorb to the MOS instead of attaching to intestinal epithelial cells and, therefore, move through the intestine without colonization.
- MOS in the intestinal tract removed pathogenic bacteria that could attach to the lumen of the intestine in this manner.
- Inhibit the in-vitro attachment of Salmonella typhimurium to intestinal cells of the day old chicken.
- ▶ Provide evidence that dietary D-mannose was successful at inhibiting the intestinal colonization of Salmonella Typhimurium in broilers.

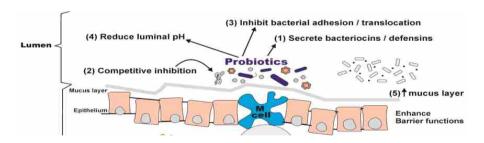


#### PROBIOTICS-BACILLUS SUBTILLIS AND BACILLUS AMYLOLIQUEFACIENS

- Probiotic are live microbial feed supplement which beneficially affect the host by improving it's intestinal microbial balance.
- Compatibility of bacillus subtillis and bacillus amyloliquefaciens with acids, antibiotics and anti coccidials have made the product resistant and ensures that it will reach GIT with optimum moisture and nutrient conditions
- ▲ The spore germinates and begin to exert their benefits.



#### CHICKEN PROBIOTICS



- ▲ Enzymes mainly proteases and amylases, benefitting the birds.
- Bacillus subtillis and bacillus amyloliquefaciens can produce lactic acid in intestinal lumen, which lowers the pH of intestine and make the surrounding inhospitable for proliferation of pathogens.
- It also produces a bacteriocin called barnag, a ribonuclease that inhibits the growth of pathogenic bacteria.



 $\label{lem:combination} Combination of these 3\ components contribute in\ controlling the intestinal\ pathogenic population and\ improves feed conversion.$ 

#### **BENEFITS**

- ▲ Controls the growth of pathogens in GIT.
- ★ Helps in uniform growth.
- ▲ Improves immunity.
- ▲ Improves FCR.

#### **ADMINISTRATION**

400 to 500 Gm per MT Feed or as per veterinarian prescription.

PRESENTATION: - 25 KG



### PROTIMIX-BioMos

PROTIMIX-BioMos is a blend of most advanced spore forming probiotics

Bacillus subtillus and Bacillus amyloliquefaciens

with natural prebiotics and performance enhancer.

PROTIMIX-BioMos provide natural nutrition to support microflora, synthesizing immune cells and play important role in improving immunity and prevent immunosuppression in live stock, thereby maximizing performance and profitability.

In GIT there is a symbiotic relationship between favourable microbes and host in which microbes get food and suitable environment and the host acquires protection against some form of diseases. Probiotics are live microbial feed supplement which beneficially affect the host by improving its intestinal microbial balance.

Compatibility of Bacillus Subtillis and Bacillus Amyloliquefaciens with acids, antibiotics and anticoccidials make the product very resistant and ensures it will reach the GIT with optimum moisture and nutrient conditions. The spore germinates and begins to exert their benefits. Enzymes mainly proteases and amylases, benefitting the birds. Besides this bacillus subtillis and bacillus amyloliquefaciens can produce lactic acid in the intestinal lumen, which lowers the pH of the intestine and make the surroundings inhospitable for the proliferation of the pathogens. It also produces a bacteriocine called barnage, a ribonuclease that inhibit the growth of pathogenic bacteria. Immuno-enhancing compound build strong immunity by synthesising immune cells. A combination of these effects, contribute in controlling the intestinal pathogenic population and improves feed conversions.

#### BENEFITS:

- Controls the growth of pathogens in GIT
- Helps in uniform growth
- Improves immunity
- Improves FCR

#### **ADMINISTRATION:**

150-250 Gms per MT Feed
Or as per veterinarian prescription

# **LINCOBACC** FORTE

Broad spectrum gut health and respiratory health improving feed supplement

#### DESCRIPTION

Superior consortium of Lincomycin, Neomycin, Organic Acid Blend, Elemental zinc and Copper with Garlicin for reducing the pathogen load and for improving gut and respiratory health.

#### COMPOSITION

Each kg contains

Consortium of Lincomycin and Neomycin 8% w/w, Organic Acid Blend 12%, Elemental Copper 1%, Elemental Zinc 1 %, Garlicin and Base q.s.

#### **KEY FEATURES**

- · Broad spectrum in action
- Prevents both gut as well as respiratory infections
- Elemental copper reduces gut infection
- Zinc supports digestive health and reduces gut inflammation

#### **BENEFITS**

- Synergistic combination to manage and respiratory health
- Aids to reduce Necrotic Enteritis
- Manages gut pH and improves gut health
- Improves body wt., FCR and weight

#### **INCLUSION**

0.2 - 0.25 kg per ton of feed

PRESENTATION: - 25 KG

# Toxizit AP









Mycotoxin Binder with Superior Stabilised treated Toxinbinder HSCAS, Blended with High Phytochemical Actives

#### MYCOTOXINS AND THEIR IMPACT ON ANIMALS

Mycotoxins are secondary metabolites produced from mold. The major source of mycotoxin contamination comes from poor feed and grain (corn, soya, sorghum, and others) management.

Aflatoxin is the most commonly found mycotoxin and the most routinely tested as per regulatory requirement. There are also other mycotoxins such as Zearalenone, Deoxynivalenol and Fumonisin. Exposure to mycotoxins from the feed can result in both clinical and sub-clinical signs in animals. These signs can range from immune suppression at low levels to multiple organ failures at high levels. With the possibility of multiple mycotoxin contaminations, a broad-spectrum mycotoxin binder is a necessity in the toolbox.

#### **BROAD SPECTRUM MYCOTOXIN BINDER**

Toxizit AP is a broad-spectrum mycotoxin binder based on proprietary activated minerals for the protection of all animal species. It is made up of a carefully selected blend of unique activated adsorbents like Organic Acid, Propionates, Banzoates, Sorbates & Acetates with HSCS.

#### **FEATURES OF TOXIZIT AP**

Unique blend of adsorbents.

Ingredients are processed for high specific binding capacity.

Broad spectrum with high efficacy against the most relevant and common mycotoxins. Non-digestible, therefore stable and active throughout the entire gastrointestinal tract.

#### **COMPOSITION:**

Toxizit AP Broad Spectrum Potent Mould Inhibitor, Blend of select broad spectrum antifungal organic acid like, Propionates, Banzoates, Sorbates & Acetates.

Mycotoxin Binder with Superior Stabilised treated Toxinbinder HSCAS, Blended with high Phytochemical Actives.

#### **MAJOR BENEFITS:**

Selectively binds all major mycotoxins and bacterial toxins.

Helps to slow down moulds proliferation- thus keeps toxin liberation lower during prolong storage period.

#### **KEY ADVANTAGES:**

Broad spectrum toxin binder cum mold inhibitor Less irritant & less corrosive.

#### **USAGE RECOMMENDATION**

Poultry, Cattle & Swine: 0.5-2 kg. per ton of feed. Inclusion depends on level of contamination & moisture percentage in feed and feed ingredients.

PRESENTATION: - 25 KG





#### **Shielding Poultry from Toxins**



Mycotoxins are toxic compounds produced by certain molds (fungi) that can contaminate various agricultural crops, including those used in poultry feed. These toxins pose a significant threat to poultry health and can lead to various adverse effects.

#### 4th Generation Mycotoxin Binder

**Toxizit Plus** is an advanced toxin binder that has been specially created to improve the well-being of chickens by reducing the harmful impacts of mycotoxins. This innovative formula contains a careful blend of top-quality ingredients, such as:

Hydrated Sodium Calcium Aluminio Silicate (HSCAS), Mannan Oligo Saccharide (MOS), Activated Charcoal (AC), Paraformaldehyde, Combinations of Organic Acids, and Phytochemicals.

#### Mode of Action of HSCAS:

HSCAS, or hydrated sodium calcium aluminosilicate, is a type of clay-based mineral commonly used as a feed additive in animal nutrition, including poultry, to mitigate the harmful effects of mycotoxins. The mode of action of HSCAS involves its ability to adsorb or bind mycotoxins in the gastrointestinal tract of animals, preventing their absorption and subsequent adverse effects.

#### Mode of Action of MOS:

MOS has a high affinity for pathogenic bacteria, such as Salmonella and Escherichia coli (E. coli). It contains specific binding sites that attract and bind these harmful bacteria. MOS is commonly used as a feed additive in animal nutrition, including poultry, to support gut health and enhance the overall well-being of the animals.

#### **Mode of Action of Activated Charcoal:**

Activated charcoal, also known as activated carbon, is a form of carbon processed to have small, low-volume pores that increase the surface area available for adsorption or chemical reactions. In the context of its use in various applications, including animal nutrition and healthcare, the mode of action of activated charcoal primarily involves its ability to adsorb substances.

#### **Mode of Action of Organic Acids and Phytochemicals:**

Organic acids and phytochemicals are commonly used in poultry nutrition as natural alternatives for managing mycotoxin contamination and promoting overall gut health. Their mode of action as toxin binders involves various mechanisms that contribute to the detoxification of mycotoxins and the maintenance of a healthy gut environment.

### Effects of hydrated sodium calcium aluminosilicate (HSCAS) on aflatoxicosis in broilers\*

The purpose of the study was to evaluate the toxic effects of aflatoxin (AF) on growth performance of broilers and to determine the preventive efficacy of HSCAS (hydrated sodium calcium aluminosilicate).

#### **Conclusion:**

Basal diet supplemented with 0.5% HSCAS did not negatively affect body weight gain, serum chemistry, feed consumption and organ weight, or cause pathological changes. Body weight (BW) was significantly (P<0.001) increased by addition of HSCAS to the AF diet. The reduction in body weight gain caused by 2.5 mg AF/kg diet was improved by the addition of 0.5% HSCAS to the diet. The addition of HSCAS to the AF diet did not affect overall feed consumption. Relative liver and spleen weights were increased in the chickens consuming the AF diet alone. The results indicate that HSCAS may be effective in preventing the deleterious effects of AF.

#### **Features of Toxizit-Plus:**

4th Generation
Toxin Binder

- HSCAS in Toxizit-Plus is renowned for its ability to efficiently bind fumonisins, which in turn decreases their uptake in the digestive system.
- MOS in Toxizit-Plus is beneficial for the well-being of the gut and plays a role in diminishing the effects of mycotoxins by maintaining a healthy mix of microorganisms within the body.
- Activated Charcoal in Toxizit-Plus is well-known for its impressive capability to absorb numerous types of mycotoxins. By doing so, it offers an extra level of safeguarding.
- Paraformaldehyde in Toxizit-Plus has powerful antimicrobial properties, but it
  also helps keep the feed clean, thereby reducing the effects of mycotoxins.
   Toxizit Plus combines specifically chosen organic acids, that have the ability to
  assist in the regulation of fumonisins and zearalenone by establishing a
  favorable environment that restricts their development and impact.
- **Phytochemicals,** which are natural compounds, can provide antioxidant and detoxification benefits that may help bolster the poultry's immune system against harmful mycotoxins such as fumonisins and zearalenone.

#### **Presentation: 25 Kg**

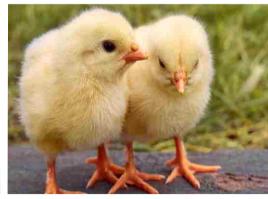
#### **Usage Recommendation:**

Recommended dose of Toxizit-Plus is 0.5-2 Kg per ton of feed. Inclusion depends on the level of contamination and moisture percentage in feed and feed ingredients.









#### **About Nutracid ASP**

Providing quality and safe food to animals specifically for chickens is a crucial concern.

Because chickens are very delicate and often get the infection and acidity from the feed, water and environment.

Feed quality is one of the important criteria for improving production, therefore it requires careful attention and constant observation, it can be directly affected by microbial activity, micro-organisms growth, toxins or by unwanted chemical reactions.

Growth and development of micro-organism is affected by certain conditions such as toxicity in feed, Water activity, Temperature, Oxygen availability, PH value and Redox potential.

Therefore, optimum conditions should be maintained in order to provide safe and clean feed with optimum self-life. Maintaining quality feed can improve production with low inputs.

Nutracid ASP takes care of 3 major parts of healthy food. It works as an acidifier, sanitizer, and as a preservative for food.

#### **Composition**

Encapsulated in fat Organic acids-mono-carboxylic acids- Formic Acid, Acetic Acid, Propionic Acid, Butyric Acid, Carboxylic Acids with the hydroxyl group, Lactic Acid, Malic Acid, Tartaric Acid, Citric acid, Short Chain Carboxylic Acids containing double bonds, Fumaric acid and Sorbic acid, Short Chain Fatty Acids (SCFA) & Medium Chain Fatty Acids (MCFA) in pure form Para Formaldehyde.

#### **Organic Acid And Their Role**

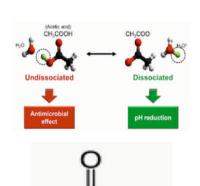
It is a carboxylic acid including fatty acids having formula R-COOH.

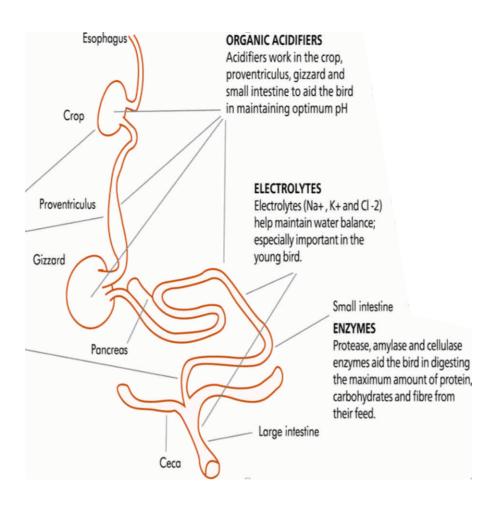
Formic acid, propionic acid, butyric acid, citric acid, and malic acid are weak organic acids which when dissolved in water dissociates into hydrogen and hydroxyl ions.

Their activity depends on 2 factors -pH and Pka. Pka is a value at which 50% of acid is present in dissociated form.

Organic acids with a high pKa value are weaker acids thus they are more effective preservatives for feed.

Being present in the feedstuff with a higher proportion of their undissociated form, can defend feed from fungi and microbes.





#### pka Values of Organic Acids

Acids with lower pKa like formic and lactic acid are used for improving digestibility process in animals.

A strong acid (with low pKa) will acidify the feed but will not have strong direct effects on the microflora. This is the reason why acid like propionic acid with higher Pka value is used as preservative of feed.

ACID	MOLAR MASS(g/mol)	pka
Formic	46.03	3.75
Lactic	90.08	3.83
Acetic	60.05	4.76
Sorbic	112.14	4.76
Propionic	74.08	4.88

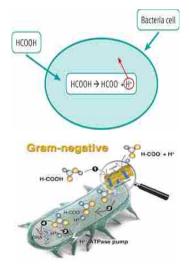
#### **Mechanism Of Action**

It is a combination of organic acids which penetrates the cell wall of gram-negative bacteria.

As the acids start working plasma pH drops because acid dissociates, and hydrogen ion concentration increases.

On the other hand, anions play an important role by hindering the DNA synthesis.

It also reduces metabolite concentration in the intestine which improves digestion



#### **Key Advantages**

Controls growth of moulds and preserve feed quality and its nutritive value.

Improves gut health by maintaining optimum pH which helps enzymes to function properly. Increases the mineral bioavailability.

Controls oxidation of feed.

Organic Acids as preservative-Acetic, Sorbic and Propionic acid.

Organic Acids contributing as sanitizer: Lactic, Acetic, Formic and Citric Acids.



#### **Usage Recommendation:**

Neutracid ASP dose is 500 gms to 1 kg or suggested by Nutri.

#### CAUTION

Do not leave the bag open after use, it may attract secondary insect pests

Pack: 25 Kg.



#### AN Optimum, Enriched & Balanced Blend Of Enzymes

Neozyme provides adequate activities of Cellulase, Xylanase, Amylase, Alpha Glucoamylase, Pactinase, Phytase, Glucanase & Lipase.

#### **BENEFITS**

- Reduction of feed cost by providing flexibility in feed formulation
- Improvement of feed efficiency in poultry
- Improvement in flock and production uniformity
- Reduction of loose and sticky droppings
- Improvement of litter quality
- Increase in the dietary content of metabolisable energy
- Improves FCR and growth
- Improves energy bio-availability
- · Improves shell thickness
- Reduction in feed intake

#### **FEATURE**

Neozyme is a special blend of heat stable enzymes specially formulated to target the feeds containing more of oils and fats in addition to a mix of cereals, oil seeds etc.

#### **DOSAGE**

250 to 500 gms per Ton of feed

Neozyme is recommended for Breeders, Layers and Broilers of all ages.

#### **PRESENTATION**

25 KG paper bag with liner

### NEOPHYTEASE 50<sup>®</sup>

#### Advanced Fungal Phytase for Poultry

Neophytease is the superior acting and stable phytase from a specially induced microbial strain (Non GMO). Along with Phytase, it also contains fungal amylase, gluco amylase, cellulase, beta glucanase and hemicellulase, which hydrolyses cellulose, beta glucans and xylans. This activity also helps synergistically in releasing of bound organic phosphorus in the plant materials used in feed and also extracting higher energy from the same feed ingredient.

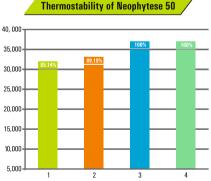
#### Why Neophytease 50 is More Potent:

Neophytease 50 is active at pH levels common in the upper digestive tract, where phytate phosphorus digestion is greatest. Compared to other phytases, Neophytease 50 has much higher activity in this pH range.

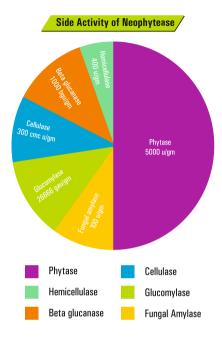
#### Suitable Thermostability:

Neophytease 50 has been developed with relevant thermostability. Neophytease 50 has been studied with heat treatment at 95°C for 1 minute with 20, 30 and 40% moisture. The study data shows excellent relevant thermostability.

Data graph is given below. This study has been carried out from 3 batches and tabulated based on average.



- 1 Remaining activity percentage with heat shock at 95°C; 1 minute & Moisture 40%
- Remaining activity percentage with heat shock at 95°C; 1 minute & Moisture 30%
- Remaining activity percentage with heat shock at 95°C; 1 minute & Moisture 20%
- 4 Control percentage with heat shock at 95°C; 30 minutes & Moisture < 5%



#### Recommendation-

Neophytease 50 is recommended to be used in feed for monogastric animals fed on diets containing plant material. The dosing rate should be suitably fixed after trials. Recommended dose is 500 FTU to 1000 FTU per Kg feed ie 75 – 150 gms /T of feed.

#### Availability

Neophytease 50 is available in Granular form having Phytase activity > 5000 ftu/gm at 50 $^{\circ}$ C and pH 5.0

#### Storage & Packing

At room temperature Neophytease 50 maintains its declared activity for at least 12 months. It should be stored under cool and dry condition (  $< 25^{\circ}$ C).

Neophytease is available in standard 25 kg paper bags.

Product from ISO 9001:2008, GMP & HACCP Certified Company



# **DAIFOMIN**

**Balanced Inorganic Trace Mineral Mixture** 







#### **COMPOSITION**

Mineral	Each kg Contains (%)
Zinc	7.00
Copper	1.00
Manganese	6.00
lodine	0.40
Iron	3.00
Selenium	0.06
Chromium	0.01

Daifomin is a balanced trace mineral mixture manufactured considering basic principle of minerals salts. It is formulated with selective salts of trace minerals considering-

- Percentage Elements
- Bioavailability
- Bulk Density
- Particle Size
- Heavy Metal Content (should be below permissible limit)

#### **BENEFITS:**

- · Improves performance of birds
- Lowers susceptibility to infections
- · Reduces mortality percentage
- Reduces stress

#### **UNIQUE FEATURES:**

- · Mixture of highly bioavailable salts
- · Higher mineral content
- · Less mineral-mineral interaction

#### **USAGE RECOMMENDATION:**

750 GMs to 1000 GMs Per MT feed.

#### PRESENTATION:

25 Kg HDPE Paper Bag



### Unique liver upliftment

Protects, performs & rejuvenates to perform efficiently



#### COMPOSITION: HEPTOGIN contains

Liver Extract, Choline Chloride, Tricholine Citrate, Yeast Cell Wall & Fermentated Protein, DL-Methionine, Vitamin B12, Organic Selenium & Allicin

#### **Key Benefits:**

- Uplifts liver function improves FCR, growth, fertility & hatchability
- Reduces fatty liver conditions in peak laying period & reduces prolapse cases
- Reduces ill effects of toxins of any kind
- Aids in regeneration of liver tissue-improves hepatic structural & functional strength

**Inclusion Instruction**: Inclusion depends on condition of liver & should be consulted with animal nutritionist

Storage: Store in a cool, dry place, away from direct sunlight.

Please keep the pack closed when not in use.

### LIVER becomes sluggish & under performers due to multiple reasons-

- Acute or chronic toxicity
- Antibiotic, chemotherapeutic overdose
- Stresses & infections
- Imbalance diets & nutrition
- Production & performance demands

#### **Key Features:**

Stimulation: Liver extract, methionine, hydrolysed protein

**Protection:** Choline chloride, tri choline citrate, selenium

Rejuvenation: Liver extract, methionine, hydrolysed protein

ANIMAL FEED SUPPLEMENT | NOT FOR HUMAN USE | Not for medicinal purpose

In Commercial layer, brolier & breeder: Dose 250 gms to 500 gms per mt feed

Persentation: 25 kg HDPE bag



A unique combination of Liver Boosting and Appetite Stimulant herbs

#### **ADVANTAGES**

- Cures & Prevent liver disorders by improving liver functioning.
- Improves appetite, FCR & growth rate.
- Helps eliminate systemic toxins.
- Acts as tonic for lymphatic system.
- Helps counter stress due to vaccination, antibiotic treatment, illness etc.
- Promotes healing & Increases Vitality.
- Speedy recovery from illness.
- Reduces inflammation & excessive mucus discharge.
- Helps relieve stomach ulcers and symptoms such as pain bleeding etc.

#### **COMPOSITION**

Each 100 gm contains Andrographis paniculata 8 gm Tinospora cordifolia 8 gm Terminalia chebula 10 gm Emblica officinalis 15 gm Boerhavia diffusa 5 gm Terminalia bellirica 10 gm Eclipta alba 8 gm Silubum marianum 15 gm Fumaria officinalis 10 gm Phyllanthus niruri 5 gm Ocimum sanctum 6 gm

#### Dosage (Powder):-

Cow, Buffalo & Horse 20 - 25 gm daily Calf, Colt, Sheep & Goat 10 - 15 gm daily

Poultry & Pig 500 gm. - 1Kg/ Tonne of feed



Presentation Powder: 25 Kg Bag



Mannan Oligosaccharide is derived from the cell wall of yeast, Saccharomyces cerevisiae. MOS and betaglucans are the structural component of yeast cell wall.MOS has been shown to improve gastrointestinal health as well as overall health, ensuring wellbeing. MOS inhibits pathogenic infection in G.I. tract as pathogens get bind to mannose. Binding of pathogenic organisms to mannose reduces the risk of pathogen colonisation in the intestinal tract.

There are billions of favourable microorganisms in the gut, which plays an important role in maintaining symbiosis between microorganisms and host, for smooth functioning of G.I. system. MOS provide natural nutrition to support microflora, improving overall health and wellbeing.

MOS substantially increases the number of goblet cells in intestine of the bird. Goblet cells secrete mucins, glycoprotein compound, which bind pathogenic microorganisms and prevent them from adherence to the intestinal mucosa.

Betaglucans play an important role in synthesising immune cells and play important role in improving immunity and preventing immunosuppression.

Mycotoxins are produced by fungi which affect the performance of the bird and causes immunosuppression, thereby giving way to different diseases. NUTRIMOS have a wide spectrum of activity against mycotoxins and help to alleviate the symptoms.

#### Thus NUTRIMOS Help -

- To maintain a healthy immune system
- Support natural defence
- Promotes a healthy gut flora
- Maintain and promote gut health
- Ensure productivity

#### **Mixing Ratio-**

500 g/MT

Or as directed by Nutritionist

Presentation - 25 kg HDPE Paper Bag

### PAUL'S SODIUM

Rich Source of Sodium for Poultry Feed



# GOOD FOR YOUR POULTRY FARMING

### WHY PAUL'S SODIUM

Paul's Sodium is the best source of Sodium for poultry diets. It's cost-effective, a better alternative to sodium Bicarbonate. Enriched with 32% Sodium, Paul's Sodium helps in decreasing the Acid Binding Effect and increasing the Dietary Electrolyte Balance, improving digestion in the upper tract and the overall health of poultry. So, replace Sodium Bicarbonate with Paul's Sodium and give your poultry and your business the boost they deserve.

S.No.	Parameters	Unit	Specifications
1	Colour		White
2	pH of 10% solution		Max 8.5
3	Sodium Sulfate (as Na2SO4)	%	Min 99.0
4	CI as NaCI	%	Max 0.10
5	Iron as Fe	%	Max 0.002
6	Moisture	%	Max 0.10
7	Matter insolute in Water	%	Max 0.20
8	Heavy metals as (pb)	ppm	Max 5.0
9	Arsenic	ppm	Max 1.5

Packaging Details: 50 Kg HDPE Paper Bag

#### Get more Sodium per Kg.

Paul's Sodium contains 32% of Sodium whereas Sodium Bicarbonate contains only 27% of Sodium\*

\*Derived from molecular mass.



Rich Source of Sodium



Value-for-Money Formulation



Maintains Dietary Electrolyte Balance



Decreases Acid-binding Effect

### Performa 40

40% of Sodium Butyrate protected with fat.

#### **KEY FEATURE:**

- With highest percentage (40%) sodium butyrate with superior protection-less odor & lowest dissociation in upper GI tract
- Target delivery in lower part of intestine-more concentration at site of infection (necrotic enteritis, E. coli infections)
- Higher content (40%) gives higher cost benefit ratio because of low inclusion recommended.

#### MODE OF ACTION:

- Protected delivery in small intestine & further lower part resulting into controlling of common pathogens including E. coli and Clostridium
- Aids in growth of probiotic microbes like lactobacillus and maintains eubiosis
- Aids in proliferation of epithelial lining by supplementing instant energy for cell multiplication. Thereby helps in early development of GI morphology
- Aids in development of gut immunity and aids in enzyme secretion.

DOSAGE: 0.5 to 1 kg per ton or as recommended by nutritionist

PACKING: 25 kg paper bag

### **ANDSORB MOSACID**



### (THE BEST SOLUTION AGAINST MYCOTOXINS & MOULD INHIBITOR) COMPOSITION:-

- Special clinoptilolite: activated zeolite a1g568 of European Union additive list.
- Special bentonite: 1m558 of European Union additive list.
- Special yeast cell walls: rich in betaglucans and most of the highest purity.
- Organicacdis.

**TARGETS:-** Control and prevention of mycotoxicoses (diarrhea, poor or bad performances, reproductive problems, liver and kidney problems....) due to the presence of micotoxins (produced by the secondary metabolism of moulds), in all species (pigs, cows, poultry...). Normal mycotoxins are Aflatoxin, Ocratoxin, Zearalenone, Fumitoxine, Vomitoxine, T2 toxin, Deoxinivalenol (DON).... Control of fungi contamination.

**USAGE:**- 1 Kg per MT or as prescribed by nutrionist

PACKING: Powder 25 kg. Paper bags

- Shelf life 24 months after manufacturing
- Keep in the original bag.



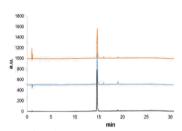
#### ALMAT concentrated ALMAT 20% premix ALMAT 20% soluble

Antimicrobial peptides produced by bacteria are categorized as Bacteriocins. Bacteriocins function as a natural bacterial immune weapon system. Gram-positive and Gram-negative can produce many kinds of bacteriocins that allow bacteriocin-producing bacteria to have the ability to inhibit the growth of sensitive bacteria. Widely exist in nature.

**ALMAT** is an antimicrobial peptide to fight against a significant number of Gram-negative enterobacteria. It can be used in feed or in drinking water of animals of all species.

#### **Characteristics:**

- The main active molecule is Citrocin.
- Citrocin is a lasso antimicrobial peptide (ribbon-shaped peptide) of 19 amino acids long produced by the microbial fermentation process.
- The lasso structure (loop structure) provides great thermostability and resistance to proteolytic degradation.
- Strong activity against Salmonella and E. coli.



- heated for 3 hours at 95 °C and then treated with carboxypeptidase B and Y (orange)
- 2 heated for 3 hours at 95 °C (blue)
- 3 HPLC chromatogram showing purified citrocin (black)

#### Mode of Action:

It is transported through the outer and inner membranes of Gram-negative bacteria, and binds to its natural enzymatic target, bacterial RNA polymerase, inhibiting DNA transcription.

#### Benefits:

- Alternative to antibiotics in swine, poultry, and pre-ruminants.
- Improves animal performance.
- · Enhances host protective immunity.

#### RECOMMENDED DOSAGE

Animals	Almat 20 Soluble g/1000 ml drinking water	Almat 20 Premix g/ 1000 kg in the feed
Broilers	250-400	400-800
Layers/ Pre-Layers	250-400	400-800

#### Packaging:

ALMAT 20 PREMIX: Aluminium bag of 20 kg.

ALMAT 20 SOLUBLE: Aluminium bag of 1 kg (in 10 kg carboard box).

#### Storage and conservation:

Store in a cool, dry place and protected from direct sunlight.

Keep bag closed when not in use.

#### **Expiry date**

24 month



## THE BEST option if you are looking for a natural antimicrobial product

**Enterohelp** acts against pathogens and are used for the treatment and prevention of intestinal disorders (Necrotic Enteritis). Enterohelp improves the development of beneficial flora of gut, which inhibits the growth of pathogenic bacteria and fungi and also helps to control other diseases like swine dysentry and coccidiosis.

#### Actions:

- Protects intestinal mucosa, hence decrease digestive problems and improves nutrient absorption.
- Antibacterial and antifungal action by regulation of intestinal flora.
- Prevention and treatment of diarrhoea.
- Inhibition of Clostridium (for Necrotic Enteritis).

#### Composition:

- Monobutyrin
- Essential Oils

#### Monobutyin

- Acts against pathogens that join to intestinal mucosa.
- Efficacy not affected by Temperature, pH and can act on all parts of the intestine.
- Non-corrosive, does not damage machinery.
- Acts against bacteria and is 50 times stronger than butyric acid

#### **Essential Oils**

- · Natural antibacterial and anti oxidant
- Natural growth promoter
- Natural intestinal flora regulation
- Obtained from natural source: Onion, garlic, cinnamon
- Cinnamaldehyde, Allicin, Essential oils from onion and Eugenol.

#### Mode of Action of Monobutyrin:

Monobutyrin is fat and water soluble and has high capacity to enter bacterial membrane. Bacterial membrane has aquaglyporins (protein), hence monobutyrin penetrates pathogenic bacteria. Monobutyrin is hydro-dispersible, hene active in water, feed, stomach and intestinal tract.

#### Role of Essential Oils:

- Cinnamaldehyde: It has antifungal properties and is also heat stable ans stable to pressure
  conditions. Clostridium perfrigens is sensitive to Cinnamaldehydeand inhibits the growth of
  Salmonella and E.Coli.
- Allicin: Allicin has broad spectrum against bacteria and penetrates the cell wall and cytoplasmic membrane. Allicin has immnunomodulatory activity (increases no. of antibodies)
- Essential Oils from Onion: These essntial oils have anti-oxidant properties and also improves the palatability and feed intake. It is a natural growth promoter.
- Eugenol: Eugenol has anti-inflammatory and anti-microbial effect against Heliobacter and E.Coli. Eugenol also has synergistic effect with Cinnamaldehyde.

#### Dose:

**Enterohelp Dry:** 500mg - 1kg/mt feed based on dry matter or as prescribed by veterinarian. **Enterohelp Liquid:** 200 ml to 300 ml in 1000 ltr. of water

Packing: 25 Kg Bag



### Cocktail Bacteriophage, Bacteriocin producing probiotics Bacillus subtilis and LAB

**Reid-X Pro** is a feed additive that is used to control pathogenic bacterial load in feed. It contains Bacteriophage, Bacillus subtilis and LAB that are designed to reduce the growth and colonization of harmful bacteria in feed.

**Reid-X Pro** can provide a comprehensive approach to reducing the pathogenic bacterial load in feed. However, it's important to note that the effectiveness of this approach may depend on the specific types of pathogenic bacteria present in the feed and the health status of the animals consuming it.

#### **Advantages**

Natural defense against bacteria, can be used with other feed supplement.

No side effects, no chemicals and toxins.

Reduces the chances of bacterial resistance.

Economical and easy to use.

Reduces mortality and increases production.

Has prophylactic and post infection interventional effect.

#### RECOMMENDED USAGE

500 gms to 1 Kg/ton of feed



Chickpal helps control early chick mortality. Chickpal acts as a biological substitute for antimicrobials.

#### **Composition:**

Chickpal is a combination of water-soluble bacteriophage, probiotics, and prebiotics.

#### Indications and Usage:

Mix one scoop (20g) with 200 liters of plain drinking water and administer to the chicks as soon as they are placed in the brooding house and repeat this process consistently for a duration of 7 days.

Avoid using jaggery water during the initial hours. Jaggery can be introduced to the water together with Chickpal.

Avoid using water sanitizers, acidifiers, or antibiotics. The first week requires 200 liters of water daily for the 5000 chicks.

The pack is sufficient for 5000 chicks.

#### **Presentation:**

100 gm for 5000 chicks

### NUTRIAID™ - SODA

#### Dietary Electrolyte Balance DEB:

Dietary electrolyte balance majorly depends on three electrolytes-sodium, Potassium and chloride.

High amount of chloride is detrimental and reduces the DEB value for addition of chloride based sources like Sodium chloride

The more suitable DEB value for broiler is within 220-240 and for layer within 230-250

Maintaining DEB within this range only possible when sodium could be increased in diet without improving chloride beyond 0.20%

Sodium bicarbonate is traditionally used to improve sodium percentage without improving chloride, but costlier option with lower sodium content compared to alternate like sodium sulphate.

### NUTRIAID-SODA Replace sodium bicarbonate to gain economy without compromising DEB value

#### BENEFITS:

- Best source of sodium-a cost effective solution to manage DEB value without increasing chloride content and its detrimentalimpact on performance.
- NUTRIAID-SODA has 31% Na, compared to sodium bicarbonate which has 27% sodium.
- Optimally formulated to fulfill the need of bicarbonate.
- To get same DEB value, around 16 to 20% less product is required compared to sodium bicarbonate.
- Around 20% to 25% economical option compared to sodium bicarbonate.

Na source	No%	CI%	DEB (mEq/kg)
NaCl	39	60	55
NaHCO₃	27	0	11739
NUTRIAID-SODA	31	0	13478

С	Description	Specification
O N	% Chloride	0.029
Т	% Sodium	31.00
E N	% Sulphur	22.00
Т	% bicarbonate	17.97

Typically 1 kg sodium bicarbonate could be replaced with 840 gm of NUTRIAID-SODA for obtaining same DEB value

ANIMAL FEED SUPPLEMENT NOT FOR HUMAN USE NOT FOR MEDICINAL USE

#### PRESENTATION:

40 kg pack

#### **SHELF LIFE:**

Best before 24 months from date of manufacture

NUTRIAID-SODA is optimally formulated to supplement 31% sodium and 17.97% bicarbonate

NUTRIAID-SODA can replace sodium bicarbonate and sodium chloride to manage DEB value.

NUTRIAID-SODA improves DEB value without improving chloride content.

NUTRIAID-SODA has low acid binding capacity-saves more acidifier added in feed from neutralization.

NUTRIAID-SODA lowers urine pH- reduces litter pH resulting into low ammonia release.

Added bicarbonate salt can fulfill the requirement of bicarbonate on during stress period.

#### COMPOSITION:

Formulated blend of salts to contribute sodium and bicarbonate

#### **TARGET SPECIES:**

Poultry and Swine

#### STORAGE CONDITION:

Nutriaid-Soda is hygroscopic and recommended not to store for long period. Store in cool, dry place, away from direct sunlight. Please keep the pack closed when not in use.







### NEOPHYTEASE 50®

**Advanced Fungal Phytase for Poultry** 



# **Toxizit** Plus

LINCOBACC FORTE





## <u>NUTRACID</u>ASP®





















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