



ORIPHYT 5K

Thermostable | Granules | Coated

Oriphyt 5K is a new generation bacterial Phytase produced from Escherichia Coli through submerged liquid fermentation with high yield ensuring excellent stability, high biological efficiency and improved performance in resistance to adverse conditions. Addition of Oriphyt 5K in feed can directly substitute inorganic phosphorous and can be applied to different scale for animal feed producers, poultry, swine and cattle farms with the characteristics of excellent cost performance, completed specifications and distinctive effect

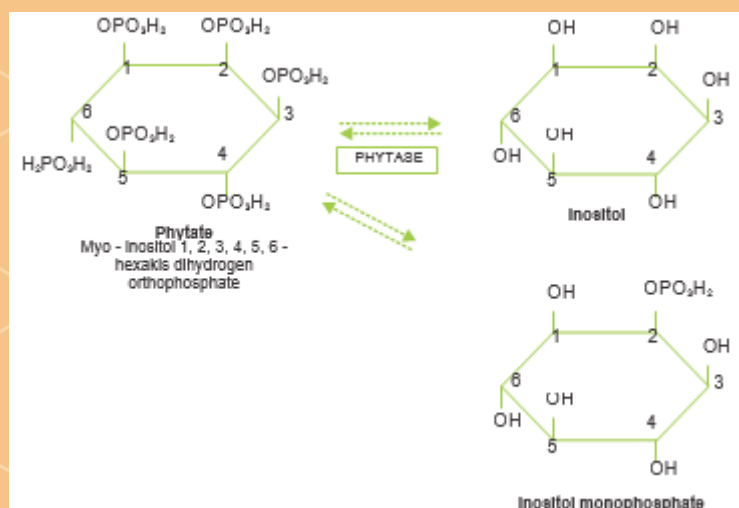
Why Only Oriphyt 5K in Feed

- Monogastric animals lack phytase degrading enzyme in their digestive tract so they are unable to utilize the phosphorous present in phytate.
- Phosphoric acid group is negatively charged, it can strongly chelate with cations such as Ca^{2+} , Mg^{2+} , Zn^{2+} , Cu^{2+} , Mn^{2+} , Fe^{2+} and K^{+} to form insoluble salts thereby influencing the absorption and digestion of these mineral by animal and reducing their bio- availability
- The phosphoric acid group of phytate can also integrate with cation groups on protein, amino acids, starch and lipids in feedstuff to reduce their solubility therefore influencing the digestibility of the nutrients by animals.
- Phosphoric acid can also integrate with protein in animal body such as amylase, pepsin, trypsin and acid phosphorylase to reduce their activity and influencing the nutrient utilization of whole diet

Oriphyt 5K – Mode of Action:

- 3-phytase (EC 3.1.3.8) first attacks phytate at eh 3 position in a reaction written as :myo - inositol hexakisphosphate + $H_2O = D$ - myo - inositol 1, 2,4,5,6 - pentakisphosphate + orthophosphate
- 6-phytase (EC 3.1.3.26) first attacks phytate at the 6 position in a reaction written as myo - inositol hexakisphosphate + $H_2O = D$ - myo - inositol 1, 2,3,4,5 - pentakisphosphate + orthophosphate

There are conflicting reports as to the final reaction product of phytase acting on phytate. In theory the inositol pentakisphosphate can rebind to the enzyme releasing a further phosphate group and the inositol tetrakisphosphate. Further sequential reactions would ultimately release inositol. However, detailed studies on the phytase action (followed by NMR) indicate that the end product is more usually inositol monophosphate.



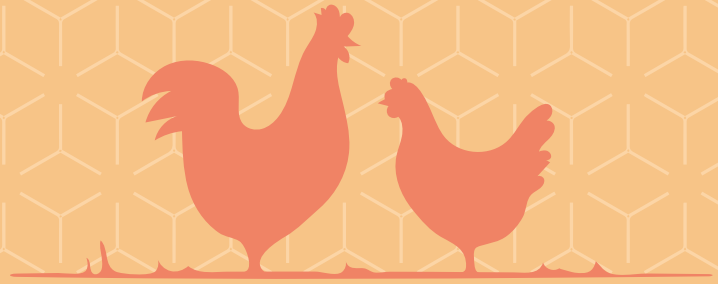
Assay Principles of Oriphyt 5K:

Phytases are a group of enzymes that catalyze the stepwise removal of inorganic orthophosphate from phytic acid and improve the availability of phosphorous and other nutritional components of the animal feed.

Oriphyt 5K assay method is available on request.

Oriphyt 5K Specifications:

- Color White to greyish white
- Moisture Less than 10% Maximum
- Form Granular
- Odour Slight fermentative odor
- Thermostability Withstand pelletization temperature



Oriphyt 5K – Benefits & Advantages

- Reduce the supplement of costly inorganic phosphorus in feeds thus reducing feed cost and increase the profitability of both feed companies and farms
- Better feed utilization.
- Reduce the excreted phosphorus through manure by 40-60%, thus reducing environmental pollution
- Increase the utilization efficiency of minerals, protein and other nutrients and improves the production performance of livestock/poultry, resulting in faster growth of animal.
- Increase the space in feed formula to improve feed quality.
- Reduces the risk of heavy metal poisoning and microbial pollution caused by (DCP) and other chemicals.
- Reduce the dust pollution in feed processing by reducing the supplement of inorganic phosphorus

Recommended Usage Levels:

The usage levels will depend upon the feed formulation

The recommended mixing levels of Oriphyt 5K s – 60 g to 100 g per metric ton of feed

Precautions:

Oriphyt 5K may cause allergic manifestation. Persons handling this material should be protected against inhalation of its dust and contact with skin or eyes.

Shelf Life: 24 months from the date of manufacturing under specific condition

Presentation: Oriphyt 5K is available in 25Kg Paper

Free From Hormones & Antibiotics

Animal/Poultry Feed Supplement

Not For Medicinal use

Not For Human Use

Catalyst LifeSciences Pvt. Ltd.

An ISO 9001:2015, ISO 14001:2015, HACCP Certified Company

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DISPOSAL OF BAD AND OUTER PACKAGE: Do not contaminate water, food or feed by storage and disposal. Completely empty container into application equipment. Triple rinse pail and offer for recycling or reconditioning. Containers can also be disposed of in a sanitary landfill or by incineration, or in accordance with guidance from your local waste regulation authority, such as by burning (if burned, stay out of smoke). When applying this product to water bodies, avoid solid particles from falling on nearby ground where birds and feed may be present.