

# ROSSPHYTE



## WHAT IS ROSSPHYTE?

**ROSSPHYTE** is a phytase enzyme produced from solid state fermentation. **Rossplyte** degrades phytates in poultry feed ingredients and improves the availability of phosphorous in chickens. Most of the phosphorous contained in typical feedstuffs exists as phytate or phytic acid. This phytate can only be broken down by Rossplyte which are not present in the digestive tract of pigs and poultry and hence supplemented from outside source.

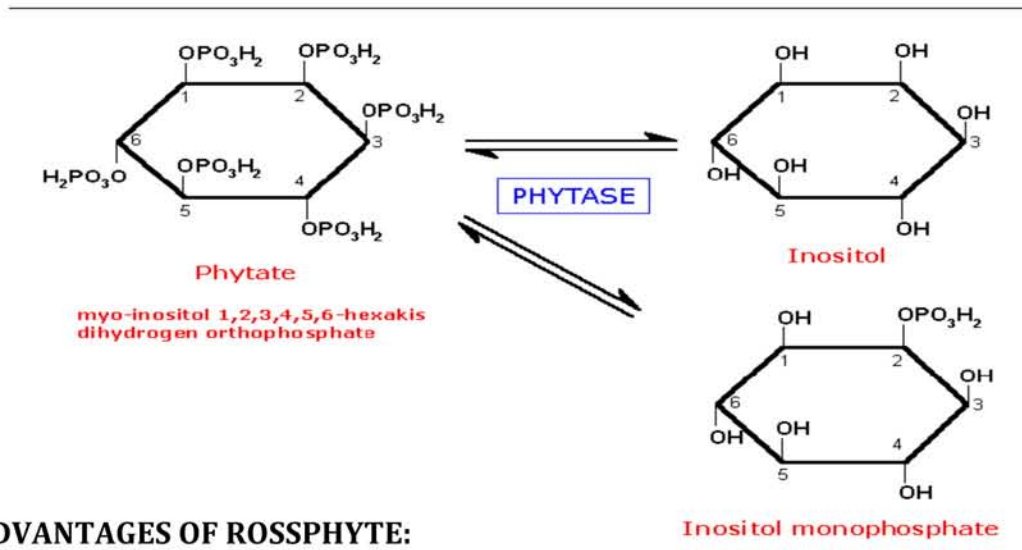
## WHY ROSSPHYTE IN FEED?

1. Monogastric animals lack phytate degrading enzyme in their digestive tract so they are unable to utilize the phosphorus present in phytate.
2. Phosphoric acid group is negatively charged, it can strongly chelate with cations such as  $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Mn}^{2+}$ ,  $\text{Fe}^{2+}$  and  $\text{K}^{+}$  to form insoluble salts thereby influencing the absorption and digestion of these minerals by animals and reducing their bio-availability;
3. 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 these nutrients by animals and poultry;
4. 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.
5. Phytate has a negative effect on vitamin utilization, therefore animals fed with feeds of high phytate content often display signs such as off-feed, emaciation, retarded growth and reproduction failure etc.

Rossplyte frees phosphorus contained in cereals and oilseeds, by breaking down the phytate structure also achieves the release of other minerals such as calcium and magnesium, as well as proteins and amino acids, which have become bound to the phytate. Thus, by releasing bound phosphorus in feed ingredients, Rossplyte makes more phosphorus available for bone growth, and reduces the amount excreted into the environment.

## WORKING OF ROSSPHYTE:

Rossplyte acts on phytic acid to release inorganic phosphate.



## ADVANTAGES OF ROSSPHYTE:

1. Reduce the supplement of costly inorganic phosphorus in feeds thus reducing feed cost and increase the profitability of both feed companies and farms.
2. Increase better feed utilization (High feed conversion ratio)
3. Reduce the excreted phosphorus through manure by 40- 60%, thus reducing environmental pollution.
4. Increase the utilization efficiency of minerals, protein and other nutrients and improves the production performance of livestock/poultry, resulting in faster growth of animal.
5. Increase the space in feed formula to improve feed quality.
6. Reduces the risk of heavy metal poisoning and microbial pollution caused by Dicalcium phosphate(DCP) and bone meal, respectively
7. Reduce the dust pollution in feed processing by reducing the supplement of Inorganic phosphorus

## REPLACEMENT OF DICALCIUM PHOSPHATE (DCP) BY ROSSPHYTE:

Rossplyte can be used to replace Dicalcium Phosphate in animal feed, possibly to the level of 50% to 60% depending upon the Phytate content in feed.

### DOSAGE:

#### 1. ROSSPHYTE :

- 60 – 100 grams per ton or as per phytate content in feed.

### FORM: Granular

## Total phosphorus in phytate “P” in common feed ingredients:

S.No	Feed ingredients	Total Phytate “P”
1	Rape	11.10
2	Linseed	8.20
3	Saya	7.10
4	Wheat Bran	1.23
5	Soyabean Meal	0.65
6	Maize	0.49
7.	Wheat	0.35

### **SHELF LIFE:**

12 Months from the date of manufacturing.

### **PACKAGING:**

ROSSPHYTE is available in 25Kg paper bag packing