Pelleting stability:
DigePhos is found to be
heat stable up to 85°C for 45 to 60 seconds

Form: Granules and liquid

Packaging: In 25kg HDPE drums / 30kg Jerry cans

Animal Feed - Our Offerings

Product Name	Enzyme Type
DiegGrain X	Xylanase
DigeGrain M	Mannanase
DigeGrain G	endo beta-1,4 glucanase
DigeGrain C	Cellulase
DigeGrain Pro	Protease (acidic and alkaline)
DigePhos	Phytase 5,000 and 10,000
DigeGrain Max	Amylase, xylanase, mannanase, glucanase, cellulase, pectinase
DigeGrain Delta	Amylase, xylanase, mannanase, protease & phytase
DigeGrain Delta Plus	Amylase, xylanase, mannanase, glucanase, cellulase, pectinase, protease & phytase
DigeGrain Super	Amylase, xylanase, mannanase, pectinase, cellulase, beta-glucanase, alpha galactosidase, protease, lipase, phytase, Bacillus subtilis & Bacillus coagulans
AciGrain (Feed Acidifier)	Blend of organic acids and their salts
Probiotics Products	Bacillus subtalis, Bacillus coagulans, Saccharomyces boulardii, muti microbe probiotics

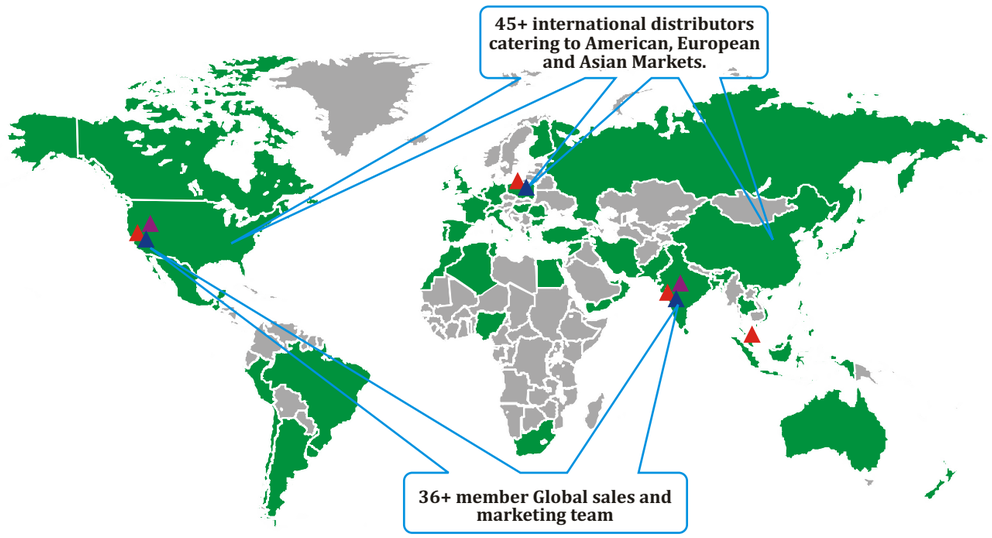
P.S. Single enzymes and customized blends are available on request

About Us

Advanced Enzymes is a research driven company with global leadership in the manufacturing of enzymes. We are committed to providing eco-safe solutions for a wide variety of industries like Human Healthcare and Nutrition, Animal Nutrition, Food and Industrial Processing.

- Animal Nutrition
- Baking
- Biocatalysis
- Biofuel
- Brewing & Malting
- Dairy & Cheese Processing
- Detergents & Cleaning Aids
- Fruit & Vegetable Processing
- Human Nutrition & Healthcare
- Leather
- Oils & Fats Processing
- Pulp & Paper
- Protein Modification
- Specialty Applications
- Starch & Grain Processing
- Textile
- Wine Processing
- Yeast Processing

THE ENZYME EXPERTS



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advanced enzymes
Where ENZYME is Life

www.advancedenzymes.com

DigePhos

For Phytate break down

- Unique Phytase enzyme
- Released phytate bound phosphorus
- Released phytate bound calcium, zinc, copper, magnesium and amino acids
- Increased energy and nutrient availability
- Reduced inorganic phosphorus use
- Reduced environmental pollution
- Reduced cost of formulation and improve profit potential

advanced enzymes
Where ENZYME is Life

DigePhos

Phytate-The 'problem component' in feed ingredients

In poultry phosphorus is essential for bone formation and mineralization as well as several metabolic processes. However, 50 to 80 % of the total phosphorus of vegetable feed ingredients like cereals and oilseeds meals, is present in the form of phytate-P which is not digested by poultry due to lack of endogenous enzyme targeting phytate-P. This causes them to excrete considerable amounts of undigested phosphorus through excreta and cause environmental problems. Moreover, phytate can also form complexes with other minerals, proteins and amino acids, thus decreasing their digestibility and performance of poultry. Therefore, costly inorganic phosphorus supplementation is required in poultry diet, which improve the cost of formulation.

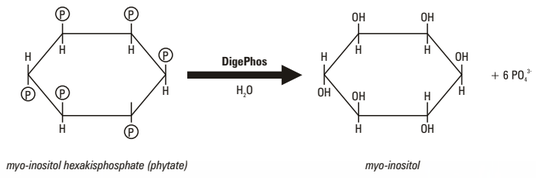
Phytate-P content of common feed ingredients

Ingredient	Total P (g/100 g DM)	Phytate-P (g/100 g DM)	Phytate-P (as % of total P)
Corn	0.33	0.24	72
SBM	0.65	0.39	60
Wheat	0.39	0.27	69
Barley	0.42	0.27	64
Oat	0.43	0.29	67
Rye	0.48	0.31	65
Sorghum	0.36	0.24	66
Wheat Bran	1.3	0.92	71
Rice Bran	1.29	1.03	80
Sunflower meal	1.16	0.89	77
Cottonseed meal	1.2	0.84	70
Rapeseed meal	1.19	0.7	59
Peanut meal	0.6	0.48	80
Coconut meal	0.59	0.29	49

How DigePhos works?

- DigePhos release phytate bound phosphorus and other nutrients like Ca, Mg, proteins and amino acids and improve their digestibility.
- Reduce phosphorus excretion and environmental pollutions.
- Reduce requirement of external inorganic phosphorus supplementation and cost of formulation

Releasing phosphorus from phytate with DigePhos



myo-inositol hexakisphosphate (phytate) *myo-inositol*

Specifications:

Activities

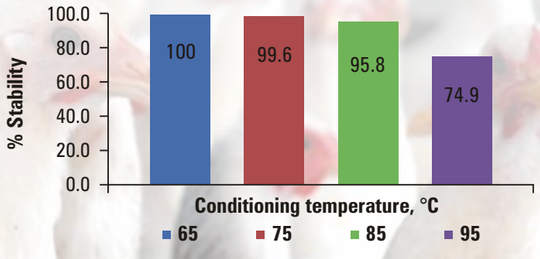
DigePhos 5G
(Phytase Granules): 5,000,000 FTU/kg

DigePhos 10G
(Phytase Granules): 10,000,000 FTU/kg

DigePhos 10L
(Phytase Liquid): 10,000,000 FTU/kg

Pelleting stability:

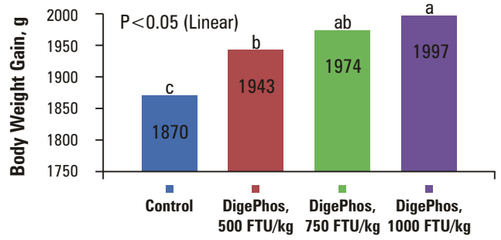
DigePhos is found to be
heat stable up to 85°C for 45 to 60 seconds



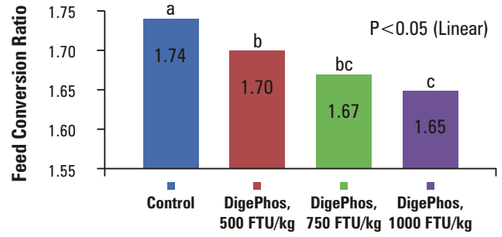
Performance in Broilers

Trial 1: Dose study in Broilers (2015: KNU, South Korea)

Body Weight Gain (d 7-35)

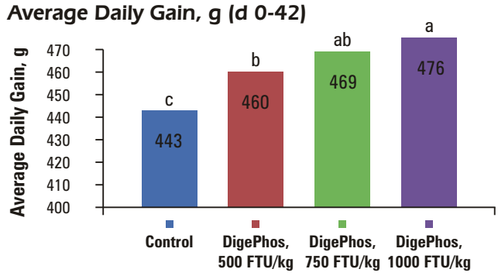


Feed Conversion Ratio (d 7-35)

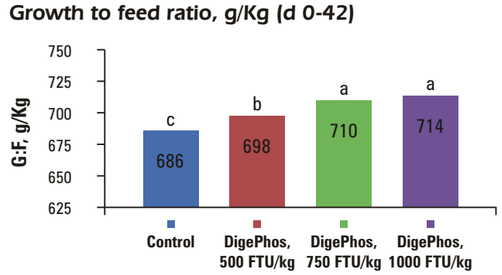


Trial 2: Dose Study in Weaning Pigs (2017: KNU, South Korea)

Average Daily Gain, g (d 0-42)



Growth to feed ratio, g/Kg (d 0-42)



Matrix Value of DigePhos

DigePhos, FTU/kg diet	500	750	1000
AvP %	0.14	0.16	0.19
Ca %	0.16	0.17	0.18
ME/kcal/kg	47	54	62
Protein %	0.44	0.44	0.45
Lysine %	0.021	0.022	0.022
Threonine %	0.035	0.037	0.037
TSAA %	0.038	0.045	0.047
Tryptophan, %	0.021	0.026	0.028
Arginine, %	0.024	0.026	0.027
Valine, %	0.024	0.027	0.029
Isoleucine, %	0.024	0.027	0.029
Glycine + Serine %	0.051	0.053	0.053

Recommended Dose:

500 to 2000 FTU/kg feed

Super Dosing:

- Superdosing is concept of using higher phytase dose (1000 to 2000 FTU/kg feed) than standard phytase dose (500 FTU/kg feed) for getting additional benefit in the form of improved performance of animals/birds and further reduction of dietary level of inorganic phosphorus.
- It has been reported that phytase supplementation at lower dose results into incomplete breakdown of phytate-P (IP6) to IP5, IP4, IP3 which can also have antinutritional effects in animals. On the other hand superdosing of phytase results into complete breakdown of phytate-P into IP1 and release of inositol. Recent publication shown that inositol also help to improve body weight gain and feed conversion efficiency which results into improve profit potential.
- We recommend to use 1000-2000 FTU phytase for additional performance benefit