

ANIMAL FEED

Enzymes based Formulations to break down Proteins and Carbohydrates for better digestion.

Enzymes based Formulation for improving digestion

The animal's digestive system is not fully efficient. Swine and poultry cannot digest approximately one fourth of the diet they are fed because the feed ingredients contain undegradable harmful factors that hinder the digestive process, and the animal is devoid of the necessary Enzymes needed to degrade certain complexes in the feed.

Supplementation of feed with Enzymes enhances its nutritive value, thereby increasing the effectiveness of digestion. Animal Feed Enzymes help break down fiber, phytate and other copolymers, that are naturally occurring in various feed ingredients. Presence of these may result in decreased meat or egg production and inferior feed efficiency and can cause digestive disturbances.

Feed Enzymes enhance the competence of meat and egg production by improving the nutrient utilization and reducing animal excreta. The challenge, therefore, is to use these exogenous feed Enzymes as efficiently as possible to reduce feed costs without compromising animal health.

Following table lists the major Animal Feed Enzymes and the benefits:

Animal Feed Enzyme Problem

PhytasePhytic Acid is problematic to the animal because it binds minerals
and amino acids which, become unavailable to the animal.Benefit: Reduces phosphorus excretionCarbohydrasesThe Carbohydrase class of Enzymes includes Xylanases, Glucanases
and Amylases. They act in the stomach to break down and degrade
carbohydrates such as fiber, starch and non-starch polysaccharides
into simple sugars that provide energy for use by the animal.
Xylanase attacks the arabinoxylan structure of corn or wheat,
allowing the animal to absorb its components as an energy source

Benefit: limits the requirement for supplemental fat or energy in the final diet

ProteaseImproves the digestion of proteins and increases Amino Acid
availability, which helps release valuable nutrients. Proteases help
producers manage the nutritional risks associated with feedstuff
quality and allow them to best utilize all available feed ingredients.
Animals consuming a traditional meal diet cannot utilize 100 percent
of the protein fraction. Adding a protease Enzyme to a meal diet will
enhance Amino Acid digestibility and animal performance.

Benefit: Improved animal growth and performance and minimal negative effects of undigested protein in the hindgut

<u>Safety</u>

Store it in cool and shaded place and avoid keeping it in direct sunlight. Enzyme dust may Cause irritation when inhaled. Unnecessary contact with product should be avoided. The shelf life of Animal Feed Enzymes under recommended conditions is for the period of 1 year.

Packing:

The packing could be customized as per the requirement.

Handling:

Liquid Enzyme preparations are dust free. However, inappropriate handling may cause the formation of aerosols or dust. Avoid formation of aerosols and dust from dried out or spilled enzyme.

Avoid splashing and high-pressure washing. Aerosols and dust may cause irritation when inhaled. Unnecessary contact with the product and inhalation of dust should be avoided. In case of spillage or contact with the skin or eyes, rinse affected area promptly with plenty of water.