

STERLING AGRICULTURE'S FISH ENZYMES AND PROBIOTICS TO ACCELERATE GROWTH AND OPTIMIZE HEALTH



KEY BENEFITS

- **Optimizes feed conversion - Approximately 1:1 when properly utilized**
- **Accelerates growth rates**
- **Increases fish size and weight**
- **Colonizes digestive tract with beneficial organisms**
- **Fortifies health and increases survival rates**
- **Minimizes waste and toxins**
- **Up to a 25% reduction in fecal matter**

APPLICATION RECOMMENDATIONS

- **2.5-5.0 kg /1,000 kg of feed (5.5-11.0 lb /2,200 lb of feed)**
- **Please allow 4 weeks for full effectiveness**
- **Specific recommendations may be site dependent**
- **Sterling-Agriculture consultation is recommended**



Aquaculture Sector

Neptune Fish BE + Probiotics

TECHNICAL INFORMATION

Neptune Fish BE + Probiotics is a patent pending blend of the following: Probiotics, Enzymes and Yeast

Additional details:

Probiotics: The ingestion of probiotics positively influences the intestinal microbiota of fish by promoting the proliferation of beneficial bacteria and preventing colonization by pathogenic organisms. Specific probiotics that produce lactic acid increase enzymatic activity. The presence of probiotics in the digestive systems of fish, coupled with the resulting enzymatic activity of these probiotics, improves the digestion and assimilation of nutrients in feeding programs by optimizing feed conversion ratios. These metabolic improvements result in healthier fish populations, faster growth rates and greater gains in size and weights.

Enzymes: Probiotics and their enzymatic activity, are known to help control algae blooms and the growth of pathogenic organisms in ponds. Enzymes are well known to breakdown pond sediment resulting in healthier pond environments that minimize the likelihood of disease outbreaks.

Yeast: The presence of yeast in the gut flora of fish, live and active strains, enhance the bioavailability of complex vitamins, micronutrients and enzymes. These enhancements in bioavailability increase efficiencies in energy utilization, further enhancing food conversion, maximization of size and weight and acceleration of growth rates. Furthermore, balanced populations of yeast in the intestinal mucosa of fish provide a substrate and a source of prebiotics for beneficial bacteria and probiotics. As a result, beneficial microbiota in the intestinal tract remain balanced, stable and healthy by inhibiting pathogenic organisms and the toxins that they produce with harmful effects to fish and ponds.

The uniqueness of our aquaculture premixes rests on the fact that the formulas contain three key ingredients that maximize the healthy development of fish and optimize pond cleanliness in a single product

PROBIOTICS, ENZYMES AND YEAST (Specific benefits):

Bacillus Licheniformis – Improves intestinal microflora to augment growth rates and immune responses. Helpful in controlling algal blooms and pond sedimentation. Observed reductions in accumulation of sediment in pond bottoms

Bacillus Subtilis – Enhances feed efficiencies, growth rates, non-specific immune response and resistance to disease. Supports the production of beneficial enzymes

Protease Enzymes – Break down proteins into digestible amino acids. Improves efficiencies of feed material

Lipase Enzymes – Break down fat into usable fatty acids and optimize absorption of vitamins and minerals

Amylase Enzymes – Break down carbohydrates, fiber and starch into simple absorbable sugars to promote growth

Phytase Enzymes – Brakes down indigestible phosphorus into usable forms. Phosphorus is critical to bone formation

Saccharomyces Cerevisiae (Strain 1026) – Improves efficiency of energy utilization to enhance food conversion