









**BIONETIX® AQUACULTURE APPLICATIONS** 

- Fish farming
- Crustaceans farming
  - Molluscs farming
- Ornamental ponds
- Aquatic plants
  - And more!

The aquaculture market has been growing at impressive rates in recent years, which is expected with our growing population. That's why safer and more renewable technologies are needed in the industry.

Supplying fish sustainably is a challenge as ponds and hatcheries are easily contaminated with bio-mass, shells, fecal matter, and other pollutants. These contaminants reduce the levels of oxygen and produce ammonia and other gases that are harmful to species and lead to disease. Excessive and irresponsible harvesting can create large scale disease outbreaks, such as early mortality syndrome seen in recent years in some parts of the world.

## CLEANER PONDS, HEALTHIER SPECIES, GREATER YIELDS

Bionetix® International uses natural solutions to improve health of both the aquatic species and the pond. Biological nutrients and stimulants combine with natural bacteria to increase pond clarity, reduce toxins, and improve water pH. Natural feed additives work as probiotics to enhance the immune mechanism in fish, shrimp, and other aquatic species against disease. These biological solutions work to lower mortality, improve health, and increase yields of aquatic livestock—without the use of antibiotics or harmful chemicals.

## NATURAL SOLUTIONS FROM BIONETIX INTERNATIONAL



Since 1996, Bionetix® International has supplied natural biological products to multiple industries and has an increasingly positive impact on the aquaculture industry today.

Bionetix® relies on bioaugmentation and biostimulation to enhance the degradation of aquaculture waste and relies on probiotics and prebiotics to boost the health of aquatic livestock.

### HARNESSING THE POWER OF NATURE



Bionetix® biological digestants are composed of 100% naturally occurring, non-pathogenic microorganisms that have been specifically selected for their abilities to degrade target substances.

Bionetix® formulations contain specific, all-natural microorganisms to break down organic pollutants – without the use of chemicals and further damage to the environment. Bionetix® bacteria are safe. Bionetix® also offers important nutrients that stimulate the growth and enhance the performance of these natural microorganisms.

# NATURAL PRODUCTS FOR HIGHER AQUACULTURE YIELDS

BCP54<sup>TM</sup> contains both aerobic and facultative anaerobic bacteria to digest and displace filamentous life forms that are frequently present. BCP54<sup>TM</sup> works even at low oxygen levels to lower pH; improve effluent quality; and reduce sludge, odors, ammonia, and other toxins.

BCP54™ competes for nutrients with algae populations and breaks down organic waste, leaving ponds cleaner and healthier!

AQUA-FEED™ bioconverter is specially designed for the aquaculture industry to reduce incidence of disease and mortality and improve weight gain for shrimp, fish, and other aquatic species. AQUA-FEED™ can supply beneficial bacteria to the intestine of shrimp/fish, improve immunostimulants in the body, and suppress pathogenic diseases in the intestine of aqua-species.

#### CASE STUDIES





#### **Trout Fishery**

Llyn Edna Fly Fishing, a trout fishery in Wales, once risked losing the season because of an unprecedented spring algal bloom and excess suspended solids. By using BCP54<sup>TM</sup> and increasing dosage in warmer weather, the lake stayed clear even in the high temperatures of July. In fact, fishing was better than ever seen in such high temperatures. Additionally, fish mortality rates dropped by at least 60%.

#### **Shrimp Farm**

A Vietnam shrimp farm began treating their water with BCP54<sup>TM</sup> and blending AQUA-FEED<sup>TM</sup> into shrimp feed. The goal was to benefit overall shrimp health by improving water quality and controlling feces and disease. After using these treatments, shrimp survival rate increased 90% and yield increased 20-30%. Average gain was 20% higher.

# TO FIND OUT MORE ABOUT BIONETIX® BIOLOGICALS

