MARISYM BIOLOGICALS

ROOTING INNOVATIONS

AQUACULTURE FEED ADDITIVES



Marisym Biologicals

Welcome to Marisym Biologicals, where innovation meets sustainability to transform industries through the power of nature. At Marisym Biologicals, we are on a mission to revolutionize various sectors by offering sustainable biological solutions inspired by the intricate relationships found in nature.

The company has in-house R&D centre and State-of-the-art manufacturing facility offing need-based solutions with consistent quality to producers, integrators and farmers.

Mission

To offer natural feed additives of microbial and plant origin for Aquaculture that is performance driven, affordable and environment friendly.

Vision

To offer customized cost-effective innovation-driven solutions to reduce environmental impact and elevating profitability

Values

- Trust
- Quality
- Farmer friendly
- Empowerment
- Research and Innovation









- Over 3 decades of experience in biologicals
- Advisory team with expertise in R & D, manufacturing process, registration and post market technical support
- Customized product development based on market demand

Technology

- Expertise in formulation technology
- Unique microencapsulation technology for improving stability and survivability of probiotics
- Hydrogel technology
- Cell concentration technology

OUR **STRENGTH**

Culture Repository

- >500 strains of beneficial microbes
- >50 probiotic strains
- Starins producing postbiotic compounds like enzymes and secondary metabolites

Seaweed Collection & Processing Unit

- Seaweed processing industry along the coastal belt of Tamil Nadu

Infrastructure

State-of-the-art manufacturing facility supporting leading MNC's in India

Quality

- Stringent quality testing at 8 different stages of production
- Technology to maintain the genetic purity of the strain and its efficiency tested between batches

AQUACULTURE

Aquaculture is viewed as an important food security sector for a growing global human population and has rapidly developed due to intensified culture methods. The indiscriminate use of chemical additives and veterinary medicines as preventative and curative measures for diseases has resulted in antimicrobial resistance among pathogenic bacteria and degraded environmental conditions.

Consequently, serious loss because of the spread of diseases has been increasingly recorded. This is a significant constraint on aquaculture production and trade, and negatively affects economic development in many countries. To overcome these constraints and improve the quality and sustainability of aqua culture production, several alternatives method have been considered. This includes use of different types of dietary feed additives such as essential oil, essential fatty acid, probiotics, prebiotics, symbiotics and exogenous enzymes. Feed additives control pathogenic microbes, stimulates immune system and enhance the growth of aquatic animals and ensure water quality. The additives are useful for their specific medicinal properties and eco-friendly metabolism in the digestive system.

Probiotics have been shown to have an important role in aquaculture. Probiotics have been proven to be positive promoters of aquatic animal growth, survival and health by ensuring improved use of the feed or increasing its nutritional value, or by enhancing the host response towards disease.

Apart from these direct effects, the indirect or environmental effects include water quality improvement, reduction of water exchange and sludge accumulation. All of these have a synergist impact on the financial performance of the farm

FEED ADDITIVES FOR AQUACULTURE

PROBIOTICS

AquaBios
(Feed Probiotic)

AquaSort
(Water Probiotic)

PHYTOGENIC

AquadDicon
(Natural Growth Promoter)

AquaLiv
(Liver care formulation)



AquaBios

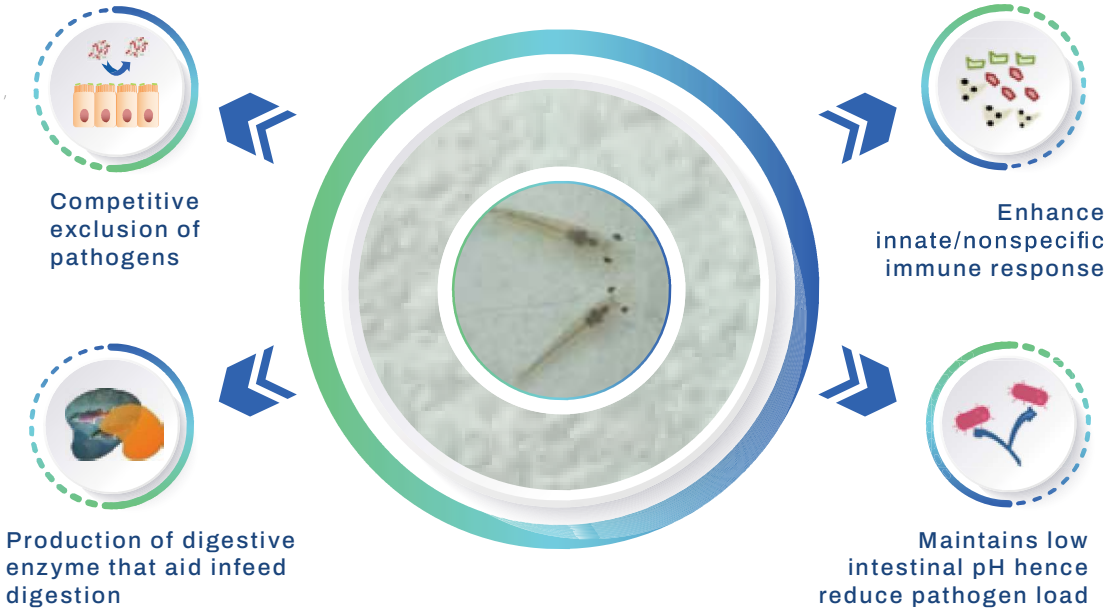
Aquabios is a distinctive blend of beneficial bacteria such as *Lactobacillus spp.*, *Pediococcus sp.*, *Enterococcus sp.* and *Bacillus spp.* to enhance immune function and immunostimulant activity against pathogenic bacterial infections. The probiotic strains colonise the gut of aquatic animals by facilitating digestion and enhancing the intestinal microbial balance by competitively excluding pathogenic microbes.

Technical Composition

• Freeze dried form of *Lactobacillus sp., Pediococcus acidilactici, Enterococcus, faecium, Bacillus sp.,* cryoprotectant and calcium carbonate

• Each gram of Aquabios contains $2*10^9$ CFU of *Lactobacillus sp., Pediococcus acidilactici, Enterococcus, faecium, Bacillus sp.* *CFU – Colony Forming Units

Mode of Action



Features

• Produces antimicrobial peptides that inhibit pathogens such as *Vibrio*

• Secretes NSP- enzymes that improve digestive functions and absorption capacity and improve intestinal flora

• Produce organic acids, enzymes, amino acids for better feed utilization of feed and assimilation of dietary components

Benefits

- Improves digestion
- Reduces of disease incidence
- Lowers FCR and improves weight gain
- Minimise antibiotic usage

Recommended usage:

5g/kg of aqua feed daily

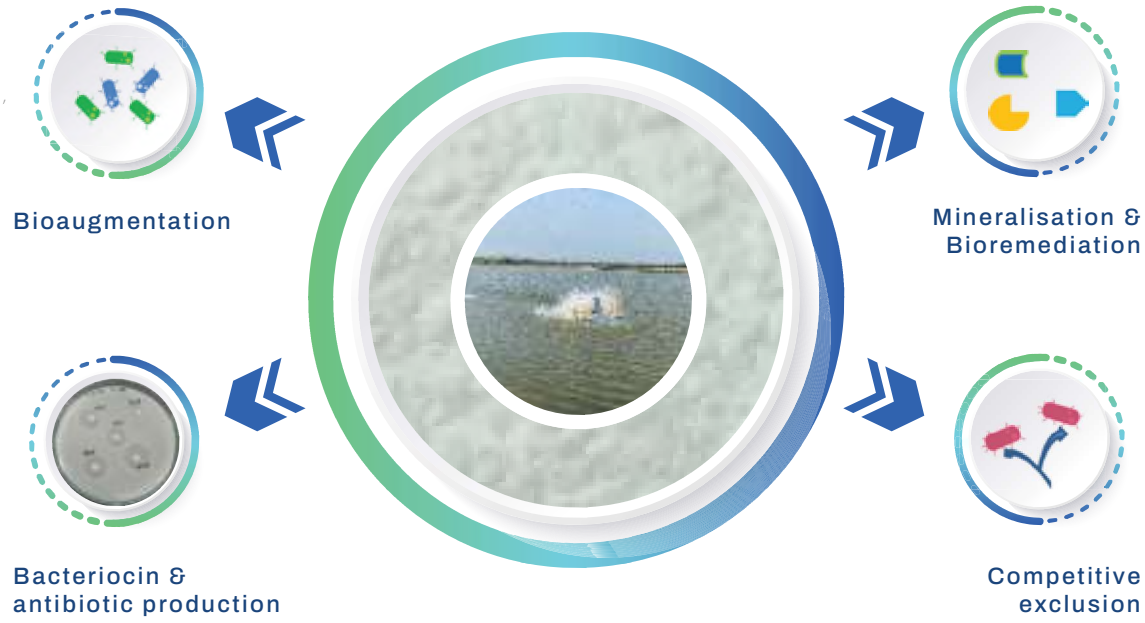
AquaSort

Aquasort is a consortium of spore forming *Bacillus spp.* strains designed to maintain water quality in the pond. It accelerates the turnover of organic nutrients and reduces their buildup in ponds. This consortia help to minimize water quality deterioration and eutrophication by maintaining the pond's microbiome in a balanced state.

Technical Composition

- Freeze dried form of *Bacillus spp*. with excipients.
- Each gram of Aquasort contains 2 *10^9 CFU of *Bacillus spp.*

Mode of Action



Features

- Degrades organic waste present in pond bottom and reduces sludge accumulation
- Produce bacteriocins and antibiotics that keep the pathogen population in the water under control
- Produces a range of exoenzymes that facilitate the mineralisation and bioremediation of the pond

Recommended usage:

500 – 800 g/acre per week depending on stocking density

Benefits

- Improves water quality
- Reduce pathogen load in ponds
- Sludge decomposition
- Reduces FCR

AquaDicon

AquaDicon is a natural growth promoter formulation used to improve the performance of aquatic animals through elimination of undesirable microbes. It is a blend of essential oils from various natural sources that are promising substitutes for antibiotic growth promoters

Technical Composition

• Essential oils from Turmeric, Garlic, Oregano, Clove, Peppermint, Cinnamon bark and Maltodextrin.

Mode of Action



Features

• No residual and adverse effects

• Safe and ecofriendly

• Minimise the problem of drug resistance

• Stimulate beneficial gut microbes and lactic acid production

• Improves feed palatability

Recommended usage:

5g/kg feed per one meal daily

Benefits

- Enhances digestion and reduces FCR
- Improves energy efficiency and nitrogen utilization
- Reduces pathogen load
- Reduces ammonia production

AquaLiv

AquaLiv is a polyherbal formulation that help to improve liver functions thus ensuring better feed utilization and increased productivity.

Technical Composition

• Dried herbal blend of Andrographis, Phyllanthus, Eclipta, Azadirachta, Silybum & Tephrosia.

Mode of Action



Features

• Stimulates digestive enzyme secretion

• Possess antioxidant properties which gives protection against stress

• Protects liver from various toxins

• Enhances absorption of feed

Benefits

- Improves appetite and digestion
- Enhances disease resistance
- Improves overall performance
- Lower FCR

Recommended usage:

3-5g/kg of feed per one meal daily

Group Companies

BIOFARM an agro based R&D company was established in the year 1995 with a mission to promote usage of existing bio products and leverage the biotechnology research findings to develop new products

Ceresri is an overseas partner of Marisym Biologicals involved in agri-tech trading based in Singapore.

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