

β-Advantage

BOOSTS IMMUNITY BUILDS HEALTH

An insurance
against outbreaks
of diseases



β-Advantage

assures protection of your shrimp and fish

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Unlike higher vertebrates the defense mechanism in a shrimp/fish is not well developed

Shrimp and Fish are very much susceptible to disease as the pathogens occur naturally in environment and cause disease if the animals are under stress. 1

In farm conditions, it is difficult for the farmers to identify and correct a primary stress condition. 2

The practice of eliminating pathogens with antibiotics is highly dangerous because of the residues of antibiotics and occurrence of resistant pathogens. 3

Most aquaculture diseases are caused by opportunistic pathogens that strike when shrimp are in weakened or stressed conditions. 4

The addition of immunostimulants is known to provide added insurance against outbreak of diseases by strengthening Non-Specific Immunity. 5

1-4 Ref: Pradeep B and K Pani Prasad, Central Institute of Fisheries Education, (CIFE) Versova, Mumbai-400 060 "Immunostimulants and their role in Aquaculture" Aqua Star, Jan/Feb 2002. pg. 78-79

5 Ref: Rambabu T. M.Sc. (Aqua) PhD (Prawn Pathology) "Disease Resistance Induced by Immunostimulants in Shrimp/Fish". Aqua Star, Nov. 2001, pg. 30-31.

β-Advantage

The right solution to the problems of disease outbreaks in Shrimp/Fish



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A UNIQUE COMBINATION OF β-GLUCAN AND MANNAN
WITH AQUA FEED BINDER STRENGTHENS NON-SPECIFIC IMMUNITY
IN SHRIMP AND FISH.

SCIENTIFIC LITERATURE SUPPORTS

THE GLUCAN ADVANTAGE

In Shrimps, **GLUCANS** enhance the production of prophenoloxidase enzyme. It is a non-specific defense enzyme in crustaceans, causing increase in such activations as phagocytosis and encapsulation both of which are associated with protective reactions in shrimps.

Ref: Rambabu I. M.Sc. (Aqua) PhD (Prawn Pathology), ICAR Project (Prawn Pathology) "Disease Resistance induced by immunostimulants in Shrimp/Fish". Aqua Star, Nov. 2001, pg.31.

The therapeutic effect of **GLUCAN** produces increased amounts of macrophages... It is very important to the animals because it produces a significant increase in non-specific protection from **BACTERIAL, FUNGAI and VIRAL DISEASES AS WELL AS PROTECTION FROM STRESSES.**

Ref: Reed and Nagodawithana, 1991

THE MANNAN ADVANTAGE

MANNAN has the greatest impact on the immune system... **MANNAN** is a potent modifier of gut microflora.

It has been found that animals fed on rations containing **MANNAN** in low concentration had improved immune system and enhanced macrophages response. Macrophages response is very important in the defense process to mount a strong immune response against infections.

Ref: Zenoh 1955, Pirvulescu 1999.

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β-Advantage BENEFITS:

- i** 100 % biodegradable immunostimulant -
No residues
No Resistance
- ii** Increases survival rate even in reduced light
and low DO levels
- iii** Optimises FCR and Maximises productivity
- iv** Prevents wastage of feed
- v** Reduces cost of medication at shrimp farm
- vi** Meets the international demand of antibiotic
residue free shrimp for human consumption

DOSE/MIXING RATE:

5g of β-Advantage for 1 kg of feed.
Under stressful environmental conditions
double the dose.

PRESENTATION: 500g jar.

Manufactured by :
ESSENTIAL AGRO
C-58 Jeet Nagar, Versova
Mumbai - 400 061.