



InnovativeS
Towards Sustainable Aqua Culture

An alternate to antibiotic

iSHRIMP

the Shrimp Shield



Shrimps are exposed to various stress in ponds. Changes in parameters like pH, D.O., temperature etc will lead to more stress. Various pathogens which are present in the pond will result in various diseases.

iSHRIMP act like a great shield and protect the shrimps against various diseases and parameter's stress. So shrimps will use the energy to weight rather than wasting it for fighting diseases and parameter stress.

iSHRIMP helps in digestion, absorption and assimilation. Chemo attracting agent in iSHRIMP attracts the shrimp towards feed more efficiently.

CELL MEDIATED IMMUNITY (CMI)

iSHRIMP improve C.M.I. which is most effective in removing virus infected cells, but also participates in defending against fungi, protozoans and intra cellular bacteria. It also plays major role in transplant rejection in shrimps.

OSMOLYTE

Maintaining water Balance in Cells is a high energy consuming process in shrimp results loose shell .

iSHRIMP helps to maintain cellular fluid balance by interacting with water molecules and avoid loose shell and Running mortality.

METHYL DONOR

iSHRIMP is very much useful in creatine and carnitine formation which is associated with generation of metabolic energy, DNA RNA synthesis , muscle growth and cell immune function.

Dosage

2-5 g/ kg feed twice a day.

In adverse conditions

10g/kg feed twice a day (6am and 10 am feed)



InnovativeS

#3, Kalaivanar Nagar, Thiruvottiyur, **Chennai - 19**, Tamilnadu, India.

www.ishrimp.in innovativeshrimps@gmail.com Customer Care: +91 72076 02234

pH BufferS
Fix pH as you like



pH cause deep impact on Pond environment. The most common cause of high pH are phytoplankton. High density phytoplankton results abnormal pH fluctuations. Pond pH is low at early morning and high at evening. High pH fluctuations results unhealthy environment to shrimps, fish and all aquatic organisms.

Increase in pH increase percentage of toxic unionized ammonia in total ammonia (unionized ammonia + ionized ammonia = Total ammonia).

At below 8 pH the toxic unionized ammonia level is less than 10% in to ammonia. At 9 pH unionized ammonia level is between 35 to 50% . At 10 pH the toxic unionized ammonia level reaches up to 90%.

Increase in pH increase stress, reduce appetite, affect moulting process, results rough shell and loose shell. High pH influence the blooming of toxic Blue-green algae.

pH BufferS is an innovation by **InnovativeS** made up of microbes and enzymes to reduce pH.

pH BufferS has been tested extensively in culture ponds at different conditions.

pH BufferS increase pro-biotic efficiency because of its pre-biotic nature.

pH BufferS can treat rough shell disease and improve exoskeleton appearance.

Dosage:- 1 kg/acre between 8 am to 10 am.

**Percentage unionized ammonia in aqueous
Solution at different pH values and temperatures**

	Temperature C				
pH	16	20	24	28	32
7.0	0.30	0.40	0.52	0.70	0.95
7.2	0.47	0.63	0.82	1.10	1.50
7.6	0.74	0.99	1.30	1.73	2.36
8.0	2.88	3.83	4.99	6.55	8.77
8.4	6.93	9.09	11.65	14.98	19.46
8.8	15.76	20.08	24.88	30.68	37.76
9.0	22.87	28.47	34.42	41.23	49.02
9.2	31.97	38.69	45.41	52.65	60.38
9.4	42.68	50.00	56.86	63.79	70.70
9.6	54.14	61.31	67.63	73.63	79.29
10.0	74.78	79.92	84.00	87.52	90.58
10.2	82.45	86.32	89.92	91.75	93.84

InnovativeS

#3, Kalaivanar Nagar, Thiruvottiyur, **Chennai - 19**, Tamilnadu, India.

www.ishrimp.in innovativeshrimps@gmail.com Customer Care: +91 72076 02234

ADD MIN



Minerals are inorganic as they exist naturally in the soil and water. Minerals are organic as they exist in plants, animals and all living things. Only plants can transform inorganic Minerals to organic minerals. Animals must consume plants or plant eating animals to obtain their organic minerals. Direct consumption of inorganic Minerals are useless and injurious to the animal organism.

FDA has issued an alert to the feed industry warning against the use of mineral mixes and pre mixes that are by products or co products of industrial metal production.(F.D.A. CUM update,2003)

Although there was a nutritive similarity between chelated, proteinated, nano, colloidal, organic and inorganic materials, each of these will have different impact on the performance. Chemically it is true that iron in the blood stream and iron in nails are the same and calcium in rocks is identical to calcium in the bones. However, it is a grave mistake to believe that the shrimp can digest and assimilate and utilize powdered nails and crushed rocks.

Inorganic minerals can't be assimilated by shrimps. In fact, the shrimp's organs must work harder to compensate for the imbalance created by ingestion of these supplements. The shrimp accelerates its elimination activities and works hard to expel these foreign substances. Shrimp hepatopancreas do it and easily get damaged that lead to Running Mortality Syndrome.

SALIENT FEATURES

- ◆ Builds critical levels of many trace elements
- ◆ Cost effective
- ◆ Easy to administer
- ◆ Greater microbe activity in the gut
- ◆ Helpful in the cases of malabsorption conditions of the g.i. tract
- ◆ Increases levels for energy, water and nutrient holding capacity
- ◆ Increases the ability of animals to resist pest and disease attack
- ◆ Improved animal health reduces input costs through efficiency
- ◆ Meets the demands of modern animal genotypes with higher requirements
- ◆ Most useful in stress conditions
- ◆ Promotes availability of both minerals and proteins
- ◆ As nutrients to the animal
- ◆ Reduces pollution
- ◆ Rebuilds tired feed rations through remineralisation
- ◆ Species and age specific

INORGANIC MINERALS



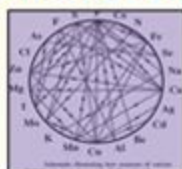
LIMITATIONS

1. TOXICITY OF INORGANIC MINERALS IN AQUATIC SPECIES

Element	Species	Toxicity sign ¹
Zinc	Common carp (<u>C. carpio</u>)	Reduced growth (dietary level above 300 mg/kg Zn; 1)
Copper ²	Channel catfish (<u>I. punctatus</u>)	Reduced growth, feed efficiency and haematocrit (dietary level above 15 mg/kg; 2)
Selenium	Rainbow trout (<u>S. gairdneri</u>)	Reduced growth and feed efficiency, high mortality (dietary levels above 13 mg/kg; 3,4); nephrocalcinosis (4,5)

	Channel catfish (<u>L. punctatus</u>)	Reduced growth (dietary levels above 15 mg/kg; 6)
Cadmium	Rainbow trout (<u>S. gairdneri</u>) Common carp (<u>C. carpio</u>)	Scoliosis, hyperactivity (7–10)
Lead	Rainbow trout (<u>S. gairdneri</u>)	Scoliosis, lordosis, black tail, anaemia, degeneration of caudal fin (11)
Chromium	Rainbow trout (<u>S. gairdneri</u>)	Reduced growth and feed efficiency (12)
Iron	Penaeids (<u>P. japonicus</u>)	Reduced growth (dietary levels above 0.014%; 13)

Antagonistic Nature of the Minerals.



MINERAL INTERACTIONS

O'Dell (1997) defines mineral interactions as "interrelationships among mineral elements as revealed by physiological or biochemical responses". O'Dell (1997) divided interactions into two major classes, positive (commonly synergistic) and negative (antagonistic). A high concentration of an antagonist element decreases the biologic effectiveness of its target element. Antagonistic interactions are often expressed as a mutual inhibition of absorption from the intestinal tract but can also occur at the cellular level (Henry and Miles, 2000). Interactions can occur between two minerals (e.g. calcium and phosphorus), or multiple minerals (e.g. copper, molybdenum, and sulfur). The current presentation will be limited to a discussion of mineral interactions that can have practical implications for ruminant animals.

COMPATABILITY

Examples of formulation additives that can be admixed or co-administered with **Add min** include Starches, Protein Concentrates, Probiotics, Yeast, Organic acids, free Amino acids, Amino acid salts, Toxin Binders, Antibiotics, Liver Stimulants, Fillers, Flow control agents, Lubricants, Flow agents, Hydroscopic minimizing agents, pH control agents, Catalysts, Vitamins, Coenzymes, Cofactors, Herbs or herbal extracts, Protein powders, Dust control agents, Binders, Disintegrating agents, Flavoring agents, Taste-reducing agents, shellacs, waxes, emulsifiers, oils, combinations thereof, and other known additives.

Trace Minerals for *Litopenaeus vannamei*

Cobalt	0.0038
Copper	0.069
Iron	6.2
Iodine	0.012
Manganese	0.32
Selenium	0.004
Zinc	2.38
Aminoacids	40

Application: 1 L /Acre once in 15 days in pond water medium and 0.5 L per 1 MT feed in alternate days

InnovativeS

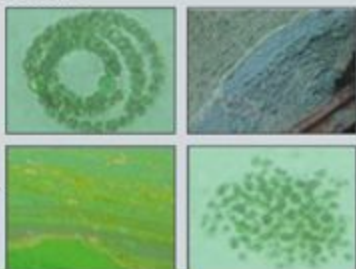
#3, Kalaivanar Nagar, Thiruvottiur, **Chennai - 19**, Tamilnadu, India.

www.ishrimp.in innovativeshrimps@gmail.com Customer Care: +91 72076 02234



Blue green algae are widely viewed as indicators of pollution. A direct result of excess nutrients promoting the growth of Blue-green algae that in turn utilize all of the oxygen present in the pond.

Perhaps the single greatest threat from these algae is the toxins they produce. Many toxins have been characterized, including neurotoxin, hepatotoxins, cytotoxins and dermatotoxins. Some are widely documented, such as the microcystins and nodularin that can cause liver damage, Geosmin responsible for off flavor and beta methylamino-L-alanine (BMAA), a potent toxin produced by many species that has been linked to several brain diseases.

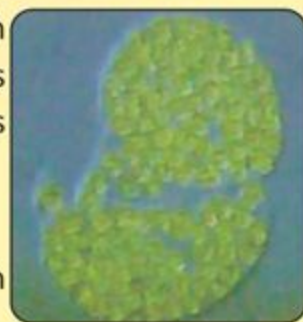
Toxin Production	
Three Primary toxins:	
<ul style="list-style-type: none">❖ Microcystins - liver❖ Anatoxin-a-nervous system❖ Cylindrospermopsin-liver, Kidneys	
Common genera that produce toxins:	
<ul style="list-style-type: none">❖ Anabaena❖ Aphanizomenon❖ Cylindrospermopsis❖ Microcystis❖ Oscillatoria❖ Planktothrix	

These algae have been implicated in fish kills. Reports suggest a number of potential toxins might be killing shrimps during the first days after stocking. The pathology is consistent with that of a hepato toxin. The presence of algae can also impact growth rate and feed conversion ratio.

The impact of White fecal matter has been found in *L.vannamei* and *P.monodon* and there is no possible association with loose shell syndrome. Interestingly, the white fecal problem has been observed with *L.vannamei* ponds having high count of BLUE GREEN algae.



BG KLEAN is a unique combination that contains herbal extracts which controls BLUE GREEN algae, Blue green algae toxins and White Feces Syndrome very effectively. Over years BG KLEAN gives consistent results against toxic blue green algae.



To reduce Blue-green algae

Apply 0.5 to 1.0 litre of BG Klean at evening hours to reduce Blue green algae. If possible remove sludge and 20% of feed for 2 days.

To reduce pH

Apply 1 litre of BG Klean at evening hours, after 36 hours apply pH Buffer S 1 kg /acre.

To control White Feces Syndrome

Reduce Blue green algae by using BG Klean and apply double dose of "Toxigaurd". Reduce or stop feeding until White Feces Syndrome is controlled.

For Turbid water quality

Check pH if it is less than 8 then apply lime 50-100 kg / acre at noon and apply BG Klean 1 litre / acre. If the pH is 8 and above apply BG Klean directly.



InnovativeS

#3, Kalaivanar Nagar, Thiruvottiur,
Chennai - 19, Tamilnadu, India.

www.ishrimp.in

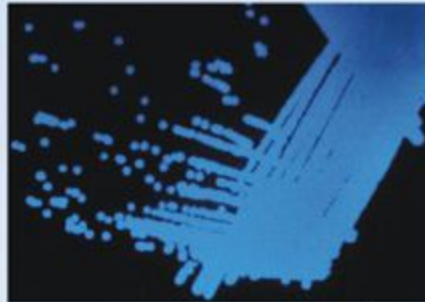
innovativeshrimps@gmail.com

Customer Care: +91 72076 02234

Swatch WHITE GM

White gut Disease and White Muscle Disease Care

INDICATIONS: WHITE GUT DISEASE



The epizootic of WMD was first recorded in November 2001 in few hatchery reared PL of *M. rosenbergii* in Andrapradesh and Tamilnadu states. More than 18 cases of WMD in freshwater prawn hatcheries with PL mortalities ranging from 30% to 100% were recorded from November 2001 to December 2002. The first sign related to this disease was the poor feeding (mineral deficiency in water, poor quality feed) and lethargy of the prawns especially during the first 5 days of PL settlement resulting in slow mortality



White muscle disease in bigger size L. Vannamei



White muscle disease in small size L. Vannamei

As the morphological and clinical signs of the disease reported by [Chen et al. \(2001\)](#) were similar to the WMD recorded in this study. It is likely that the involvement of the Gram-positive cocci, *Lactococcus garvieae* in WMD found by those workers could possibly have been a secondary infection. The disease progressively destroyed the abdominal muscular organization of the prawns especially the striated muscles finally leading to mortality. Several authors reported white muscle disease in shrimps and prawns ([Chen et al., 1992](#); [Sudhakaran et al, 2006](#); [Ravi et al., 2009](#)). Besides the above, this white muscle disease also recorded in *L. vannamei*.

Histopathological examination of the infected animals revealed highly necrotic musculature. Degenerated muscle areas showed aggregations of melanized nuclei, many of which looked like inclusion bodies. Bacteriological examination of affected PL showed the presence of *Staphylococcus* spp. as a predominant organism.

Affected PL showed characteristic whitening of abdominal musculature associated with anorexia and lethargy. The moribund PL seriously affected with WMD appeared milky white and the mortalities in hatcheries were reported to be 30-100%

INTRODUCTION

Surveys undertaken on diseases caused by *Vibrio* spp. in *Penaeus monodon* from culture ponds of coastal Andhra Pradesh recorded the occurrence of five types of diseases:

Tail necrosis, shell disease, red disease, loose shell syndrome (LSS), and white gut disease (WGD).

Among these, LSS, WGD, and red disease caused mass mortalities in shrimp culture ponds.

Six species of *Vibrio* *V. harveyi*, *V. parahaemolyticus*, *V. alginolyticus*, *V. anguillarum*, *V. vulnificus*, and *V. splendidus* are associated with the diseased shrimp.

The number of *Vibrio* spp. associated with each disease ranged from two to five. Additionally, shrimp with red disease had concurrent infections with white spot syndrome virus.

Vibrio harveyi in the case of LSS and WGD, *V. parahaemolyticus* in the case of red disease, and *V. alginolyticus* in the case of shell disease are the major etiological agents.

Differences occur in the degree of virulence of different species of *Vibrio* and also different isolates of the same species.

Vibrio harveyi isolated from LSS shrimp is the most virulent. In general, all the *Vibrio* isolates from LSS shrimp tend to be more virulent as compared to their counterparts from other diseased shrimp.

It is apparent that the degree of virulence of various *Vibrio* isolates depends on its source and the pond environmental conditions.

The luminous *V. harveyi* exhibited resistance to many antibiotics and susceptibility to only three drugs.

Considering the emergence of antimicrobial resistant strains of *Vibrio*, the need for using probiotics in place of antibiotics for disease control is stressed

Salient Features

- 1) Assists in activating the function of Hepato pancrease
- 2) Aids to control white gut disease in shrimps
- 3) Helps in achieving faster growth rate and faster body weight gain.

Swatch WHITE. GM CONTAINS

Extract of *B. subtilis*, *L. planatarum*, *Streptomyces rimosus*, Chemical adjuvants, Herbal Synergisers, Curcumin, BHT/BHA, Sodium Selenite, Vitamin E, Vitamin C, Cyanocobalamin. Vitamin A and other Mineral Components that help.

Suggested Level of Usage:

In Feed: Preventive: 3-5g/ kg all 4 Feed once in 7 days
Curative: 5-10g/ kg feed all feed

In Pond water: Preventive: 200g/ Acre once in 10Days
Curative: 400g/ Acre

InnovativeS

#3, Kalaivanar Nagar, Thiruvottiur, Chennai - 19, Tamilnadu, India.

www.ishrimp.in innovativeshrimps@gmail.com Customer Care: +91 72076 02234

B KLEEN BR



InnovativeS
Towards Sustainable Aqua Culture

Our probiotic technology uses living Organisms that are friendly to shrimp. Once introduced into the aquatic environment organisms in our probiotics continue to multiply so as to keep up with the increasing resistance of harmful micro organisms in your pond. This means that a shrimp farmer will spend less on pest and disease control while producing healthy shrimps that are not overexposed to chemical that may be unhealthy to consumers.

Growth of microbes and micro organism in aquaculture pond is unavoidable. Development of harmful microbes and plankton in pond ecosystem will cause various diseases and stress to the aquatic animals. Frequent feeding and dead plankton will results unhealthy environment in both soil and water. Keeping all these factors in mind InnovativeS design "B KLEEN BR".

B Kleen BR is proven to increase survival by reinforcing the body's natural defense mechanisms, increase disease resistance & suppressing potentially harmful Bacteria.

Through competitive exclusion creates a healthier, more Robust animal that can withstand challenging conditions.

Cost of B Kleen BR is a small fraction of total production costs, yet average yield increases by 25%.

B Kleen BR reduce costs and increase profits include more consistent sized animal, improve stress tolerance, elimination of antibiotic use, reduce water exchange, improved flavor texture and improved feed conversions .

Improved FCR means more profit. Better water quality allows shrimp to use energy to weight rather than wasting energy for fighting disease and poor water quality.



B KLEEN BR



ANTI VIRAL & VIBRIO

CONTENTS: High Quality bacterial strains blended in proper ratio, perfectly balanced. Bacillus subtilis, Bacillus Megaterium, Nitrobactor, Aspergillus Yeast etc.,

BENEFITS

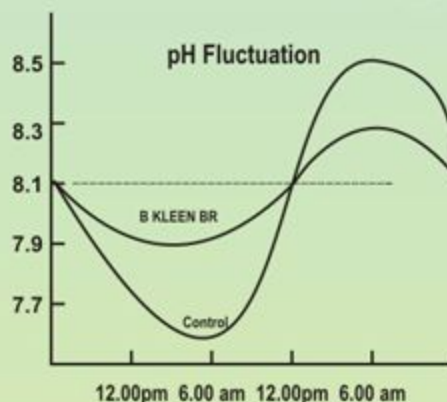
Reduce pathogenic vibrio sp. and virus effectively. Maintain good water quality, result better growth
Reduce organic wastes in the pond bottom by Oxidation. and survival Maintain optimum pH and reduce pH fluctuations.
Cost effective. Extensively tested in all climatic conditions.

Dosage /Acre

Salinity	PPT	0-5‰	5-10‰	10<
Before Stocking		1.0Kg	1.5Kg	2.0Kg
1 -60 Days (10Day)		0.5Kg	0.75Kg	1.0Kg
60 Days & above (7Day)		0.5Kg	0.75Kg	1.0Kg

Double the dose in adverse condition.

For better results soak B Kleen BR in jaggery solution for 4 Hours before application.
In Feed: 5 to 10 g./Kg feed twice a day to prevent vibrio disease.



InnovativeS

#3, Kalaivanar Nagar, Thiruvottiyur, **Chennai - 19**, Tamilnadu, India.

www.ishrimp.in innovativeshrimps@gmail.com Customer Care: +91 72076 02234

TOXI GUARD

Sludge Reducing Probiotic



InnovativeS
Towards Sustainable Aqua Culture

TOXI GUARD

Sludge Reducing Probiotic



TOXI GUARD

Sludge Reducing Probiotic



The environment of pond changes rapidly in Semi intensive & intensive aqua culture practices due to accumulates huge volumes of organic waste (Pollutants) like dead planktons, faecal matter, uneaten feeds frequently in culture ponds and forms sludge in the pond bottom. The sludge made up of toxins like Ammonia, Nitrite, Hydrogen sulfide (H_2S) etc which effect shrimp's health, growth & survival.

TOXI GAURD is a combined probiotic of aerobic and anaerobic microorganisms developed for biological degrabation of organic waste present at the pond bottom and improves D.O levels. It is safer to use and quickly creates better environment in ponds

Dosage: 500 grm to 1kg /Acre or as directed by your Aqua consultant
(Mix recommended quantity of **TOXI GUARD** in suficient quantity of sand & broadcast all over the pond between 8.00 am to 1.00 pm)



InnovativeS

#3, Kalaivanar Nagar, Thiruvottiyur,
Chennai - 19, Tamilnadu, India

 www.ishrimp.in
 customercare@ishrimp.in
 +91 72076 02234

Benefits:

- ✦ Removes ammonia, nitrite and H_2S
- ✦ Clears pond bottom sediments
- ✦ Redues BOD and COD
- ✦ Works in aerobic and anaerobic conditions
- ✦ Improves D.O and water quality
- ✦ Providing healthy environment
- ✦ Works in wide range of salinity
- ✦ Enhances shrimp growth
- ✦ Optimises FCR, maintains stable plankton



Store in cool dry place only

Net Qty :
Batch No. :
Mfg. Date :
Exp. Date :
M.R.P. :
(Inclusive of GST)

For aquaculture use only / feed supplement