



# SUSTAINABLE AQUACULTURE

Building Trust  
Through  
Innovation  
And  
Quality Services





## Building Trust Through Innovation And Quality Services

**Prajakt Life Science Pvt. Ltd.** was established in 2005 by a team of Aquaculture expertise under the umbrella of Salasar Dye Chem & Salasar Tex Chem. Our name symbolizes our core value.

**Secret of Success:** A strong scientific and professional knowledge, dedication, integrity and a well planned team work.

**Core Value:** A strong and innovative research work and development programs. The team has an experience of over 15 years in the field of Aquaculture, Animal Husbandry, Diary and Pets. The R&D team with 25-30 years of experience in probiotic formulations, enzymes and chemicals.

**Area of Interest:** Develop unique and innovative products of Aquaculture, Veterinary, Poultry and Pets





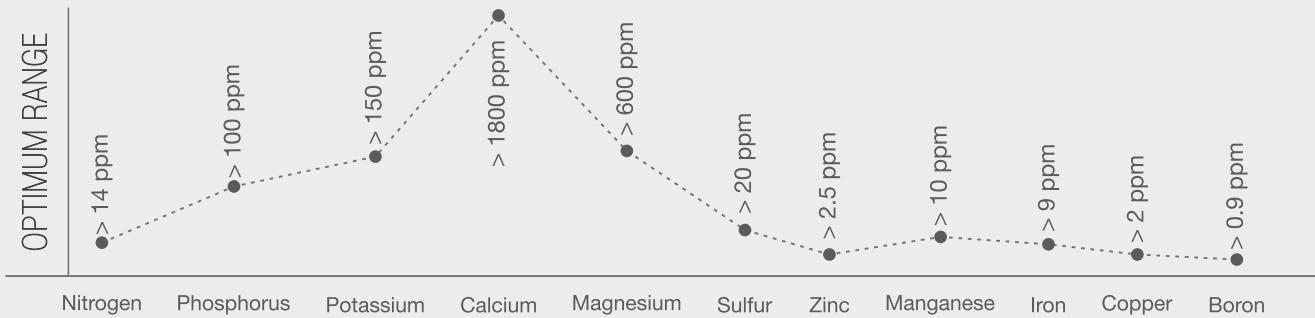
PRAJAKT LIFE  
SCIENCES PVT. LTD.

#### ► SOIL - OPTIMUM PARAMETER

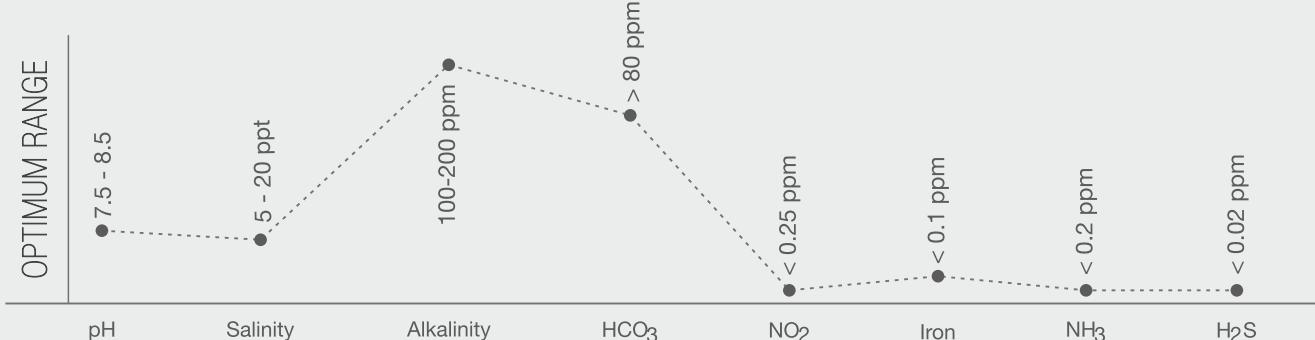
Soil pH	6.5 - 7.5
Electrical conductivity	<1 mS/cm
Organic matter	>1.5%

# QUALITY TEST FOR SOIL & WATER

#### ► SOIL - NUTRIENT PARAMETER



#### ► WATER - OPTIMUM PARAMETER



#### ► DISSOLVED ORGANIC CARBON (DOC) - OPTIMUM RANGE

(DAY OF CULTURE)	
5- 10	< 5 ppm
10- 50	< 15 ppm
50 & above	< 20 ppm

# BLIND FEED CHART

## (FOR ONE LAKH SEED)

The chart below represents 27 days blind feed for one lakh seed stocking

DOC	FEED CODE	7AM	1PM	7PM	TOTAL FEED (200gm in acre)	CUMULATIVE FEED (gram)	
1	1	700	700	700	2100	2100	
2	1	770	770	770	2310	4410	
3	1	840	840	840	2520	6930	
4	1	910	910	910	2730	9660	
5	1	980	980	980	2940	12600	
6	1	1060	1060	1060	3180	15780	
7	1	1130	1130	1130	3390	19170	
						19170	
DOC	FEED CODE	7AM	11AM	3PM	7PM	TOTAL FEED (300gm in acre)	CUMULATIVE FEED (gram)
8	1 + 2	800 + 125	800 + 125	800 + 125	800 + 125	3200 + 500 = 3700	3700
9	1 + 2	600 + 400	600 + 400	600 + 400	600 + 400	2400 + 1600 = 4000	7700
10	1 + 2	500 + 500	500 + 500	500 + 500	500 + 500	2000 + 2000 = 4000	11700
11	1 + 2	300 + 800	300 + 800	300 + 800	300 + 800	1200 + 3200 = 4400	16100
12	1 + 2	100 + 1100	100 + 1100	100 + 1100	100 + 1100	400 + 4400 = 4800	20900
							20900
DOC	FEED CODE	7AM	11AM	3PM	7PM	TOTAL FEED (400gm in acre)	CUMULATIVE FEED (gram)
13	2	1300	1300	1300	1300	5200	5200
14	2	1400	1400	1400	1400	5600	10800
15	2	1500	1500	1500	1500	6000	16800
16	2	1600	1600	1600	1600	6400	23200
17	2	1700	1700	1700	1700	6800	30000
18	2	1800	1800	1800	1800	7200	37200
19	2	1900	1900	1900	1900	7600	44800
20	2+3	1700 + 125	1700 + 125	1700 + 125	1700 + 125	6800 + 500 = 7300	52100
							52100
DOC	FEED CODE	7AM	11AM	3PM	7PM	TOTAL FEED (500gm in acre)	CUMULATIVE FEED (gram)
21	2 + 3	1500 + 450	1500 + 450	1500 + 450	1500 + 450	6000 + 1800 = 7800	7800
22	2 + 3	1200 + 875	1200 + 875	1200 + 875	1200 + 875	4800 + 3500 = 8300	16100
23	2 + 3	1000 + 1200	1000 + 1200	1000 + 1200	1000 + 1200	4000 + 4800 = 8800	24900
24	2 + 3	700 + 1625	700 + 1625	700 + 1625	700 + 1625	2800 + 6500 = 9300	34200
25	2 + 3	400 + 2050	400 + 2050	400 + 2050	400 + 2050	1600 + 8200 = 9800	44000
26	2 + 3	100 + 2500	100 + 2500	100 + 2500	100 + 2500	400 + 10000 = 10400	54400
27	2 + 3	2850	2850	2850	2850	11400	65800
							65800

(Feed code No.1 = 28Kg) + (Feed code No.2 = 83Kg) + Feed code No.3 = 47KG) = Total Feed = 158Kg

# FEED CHART

The below chart includes percentage feed for animal body weight, check tray maintenance total feed for 80% survival with DOC (\*Day of Culture)

DOC	ABW (Gms)	Check tray maintenance / hrs Below 0.4/h Above 0.4-1/hec.	Check tray timing hrs.	% of feed	80 % survival daily total feed (Kg)
30-35	3 - 4	4	3	2.45	7.5
35-45	5 - 7	5	4	2.30	5.4
45-55	8 - 9	6	5	2.15	4-3.5
55-65	10-12	7	6	2	3.3-3
65-75	12 - 14	8	7	1.45	2.9-2.7
75-85	14 - 16	9	8	1.45	2.7-2.8
85-95	16 - 18	10	9	1.45	2.7-2.6
95-105	18 - 20	11	10	1.30	2.5-2.4
105-115	21 - 23	11	10	1.30	2.4-2.3
115-125	23 - 25	12	10	1.30	2.3-2.2

\*ABW (Average Body Weight)

## Feed & Survival Calculation Formula

Total Feed = Number of Animal stocked x Average Body Weight (ABW) x Feed Percentage

$$\begin{aligned} \text{For ex: Total Feed} &= 1,00,000 \text{ (Stocked)} \times 10 \text{ gm (ABW)} \times 3 \text{ (% feed)} \\ &= 30,000 \text{ gm ----- 30 Kg} \end{aligned}$$

$$\begin{aligned} \text{Survival Calculation} &= \frac{\text{Total Feed}}{\text{ABW} \times \% \text{ feed}} \end{aligned}$$

$$\begin{aligned} \text{For ex: Survival Calculation} &= \frac{24,000 \text{ gm (Total Feed)}}{\text{ABW (10gm)} \times 0.03} \end{aligned}$$

$$= 80,000$$

$$= \frac{80,000 \times 100}{1,00,000 \text{ (No. of animal)}}$$

$$= 80\%$$



# Water Quality And Sludge Management

Sludge formation in pond caused by over feeding, algal crash and faeces of animal. Sludge increases the organic carbon in pond and affects the water quality. Optimum ranges are mentioned below:

## Dissolved Organic Carbon (DOC)

5-10 (Day of culture)	< 5 ppm
10-50 (Day of culture)	< 15 ppm
50 & above (Day of culture)	< 20 ppm

If it increases the level mentioned, decreases the DO level of pond, which in turn increases the Vibrio load of water. Vibrio species are part of the natural microflora of wild and cultured shrimps, but it becomes opportunistic pathogens when the situation prevails. The major species cause diseases in aquaculture are *V. harveyi*, *V. parahaemolyticus*, *V. alginolyticus*, *V. anguillarum*, *V. vulnificus*. Vibrio prevails when the aquaculture system has excess organic load, plankton crash and via untreated water into the system. Vibriosis are usually associated with multiple etiological agents, and cause diseases like tail necrosis, shell disease, red disease, loose shell syndrome and white gut disease (WGD).



# Water & Soil Probiotics

PRO VICTER is an unique formulation of beneficial bacteria like Lactobacillus acidophilus, Bacillus subtilis, Bacillus licheniformis, Bacillus pumilus, Bacillus cereus, Bacillus megaterium and enzymes like Amylase, Protease, Lipase, Phytase, Cellulase. One gram PRO VICTER contains nine billions cfu.

## Benefits

- Enhances healthy water and soil condition.
- Beneficial bacterias improve good water colour by maintaining Plankton density.
- Strains are adaptable to long range of pH and Salinity conditions
- Reduces unwanted gases by removing organic load of pond bottom and pollution of the pond water.
- Reduce toxicity by inhibiting Vibrio and other pathogenic bacterial growth in the pond
- Improves healthy Ecosystem for the Shrimp, Prawn and Fish by reducing BOD and increasing DO levels.
- Reduces the frequency of water exchange.
- Improves FCR and Better Yield by reducing mortality rate of Shrimp, Prawn and Fish

## Dosage



Up to 20ppt salinity: 500-1000 gm/hec for 1 mt water depth for every 7-10 days

20-35ppt salinity: 750gm - 1.5 kg/hec for 1 mt water depth for every 7-10 days

Above 40ppt salinity: 1.5kg - 2kg/hec for 1 mt water depth for every 7-10 days

If luminescence bacteria: 500-1000gm/hec for 1 mt water depth for every 3-4 days



For Fresh Water: 500gm/hec for 1 mt water depth for every 10-15 days

**Package size : 1 Kg (4 x 250gm)**

As advised by your aquaculture consultant

COUNT ON IT  
FOR BETTER  
COUNTS





# A Faster Growth Promoter

MAXI GROW is natural, non-toxic enriched with Probiotics (Lactobacillus sp., Bacillus sp.), MOS, Nucleotides, 1,3 Beta Glucans, Sea Weed Extract, Spirulina, Enzymes (Amylase, Protease, Lipase, Phytase, Cellulase, Biotin, Inositol), Vitamins, Trace Minerals and Amino Acids (L-Lysine, DL-Methionine).

## Benefits

- Faster growth ratio by improving faster protein hydrolysis in gut.
- Beneficial bacteria boosts gut health by reducing pathogens.
- Act as an immuno-stimulator and reduces stress.
- Spirulina and Sea Weeds Extract acts as higher protein sources to enhance faster growth.
- Vitamins and trace minerals act as balance diet to maintain body metabolism.
- Beta Glucans act as pre-biotic and enhance immunity power.
- MOS Improves FCR by improving feed utilization
- Improve growth and survival rate by improving body colour, texture and taste of Shrimp, Prawn and Fish.

## Dosage



L. vannamei / P. mondon:  
5 to 10gm / 1kg of feed



3 to 5gm / 1kg of feed

**Package size : 500 Gm**

As advised by your aquaculture consultant



# Stress Free Moult

## **Solving Moult & Muscle Cramp Problem**

A highly concentrated Chelated Minerals such as Calcium, Potassium, Magnesium, Sodium, Phosphorous, Copper, Cobalt, Iodine, Iron, Manganese, Selenium and Zinc fortified with Vitamins (A, D3, E, K, B12 and C), Enzymes and Amino Acids.

### **Benefits**

- Assist stress-free and regular moult.
- Helps to recover shrimp/prawn from muscle cramp syndrome due to mineral deficiency.
- Regulates shell & muscle building of shrimp/prawn.
- Prevents and controls loose shell disease in shrimp/prawn.
- Also acts as a growth promoter.
- Assists in proper osmoregulation.

### **Dosage**



P. monodon / L. vannamei: 10gm / 1kg pellet feed.  
Mix the GOLDEN MOULT with clean water and add Promise Gel: 20ml/kg feed. Then apply on feed and dry for 30 minutes.

**Package size : 500 Gm**

As advised by your aquaculture consultant



## Moultung

**Moultung is a hormonal phenomenon which goes together with growth in crustacean life cycle. Required amount of minerals, amino acids and vitamins are essential for the animal to moult freely.**

**This chart represents the normal moult pattern of Shrimp life history**

### MOULTING CHART FOR SHRIMP

AGE	DOC	MOULTING TIME	TOTAL MOULTING TIME	MOULTING LEAD TIME [DAYS]	ADG	BODY WEIGHT [GM]	ANIMAL COUNT [PER KG]
YOUNG SHRIMP	1 - 7	7	16-18	1		0.66	1500
	8 - 15	4		2	0.066	1.00	1000
	16 - 30	5		3	0.200	2.00	500
FATTENING SHRIMP	31 - 45	2	4-6	7	0.266	5.00	200
	46 - 60	2		8	0.266	10.00	100
ADULT SHRIMP	61 - 90	3	3-4	9	0.222	16.66	60

## Water Hardness and Moultung problems:

Water Hardness plays an important role in shrimp aquaculture. Calcium and magnesium are the common sources of water hardness. Calcium and magnesium are essential in the biological process of shrimp.

The optimum range of hardness  
1.) Saline water - 2000 ppm to 6000 ppm  
2.) Fresh water - 600 ppm to 1000 ppm

### Low hardness problems:

- When the hardness below 500, shrimp mortality will start.
- Phytoplankton population will increase. Simultaneously DO level drops at night.
- At low hardness, the NO<sub>2</sub> level will increase

### High hardness problems:

If the hardness is more, the mineral deposition on shrimps will occur and the shrimp moultung affected.

- I. DO saturation will also be low.
- II. Blue green algal population will increase.

### Remedy:

Application of AQUA SOFT: 5 Kg per acre, reduce hardness of water and helps for free moultung

Minerals serve as an essential component for enzymes, vitamins, hormones, pigments, co-factors in metabolizes, catalysts and enzyme activator. Shrimp can absorb or excrete minerals directly from the aquatic environment via gill and body surfact. The dietary requirement of minerals is largely dependent on the mineral concentration of the aquatic environment, in which, the shrimp is being cultured. There are twenty recognized inorganic elements which perform essential functions in shrimp body. Some minerals are required in considerable quantities, and are termed as macro minerals, while the minerals which are required in less amount referred as micro-minerals. These micro-minerals have greater role in shrimp aquaculture.

# pH



pH (potential of hydrogen) is a measure of the hydrogen ions concentration of a solution. Solutions with a high concentration of H<sup>+</sup> ions have a low pH and solutions with low concentrations of H<sup>+</sup> ions have a high pH.

$$\text{pH} = -\log [\text{H}^+]$$

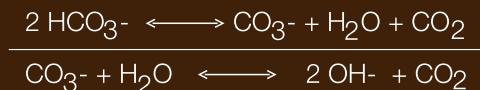
It is an important chemical parameter to consider because it affects the metabolism and other physiological processes of culture organisms.

Photosynthetics and respiration will affect the pH, pH will be lowest in the morning and highest in the afternoon. In aquaculture, optimum pH range is 7.5-8.2, and it should not fluctuate more than 0.5. If so, it will affect the animal.

#### If pH,

< 4	Death
4-5.	No reproduction
5-6.	Slow growth
6.5-7.4	Poor growth
7.5-8.2	Good growth
8.2 - 9	Poor Growth
9.5 and above	Pathetic condition for Shrimp & Fish (Death)

## Photosynthesis



## Respiration



## HIGH pH

### When the pH is high

- 1) Increase of NH<sub>3</sub> even 0.2 will become toxic

### The increase of pH along with temperature more than 33°C

- 1) Affect the moulting cycle
- 2) Running mortality Syndrome (RMS)

### The increase of pH along with Salinity more than 35 ppt

- 1) Influence the growth of Blue green Algae
- 2) Dinoflagellate will produce toxin and foam
- 3) Increase of Vibrio will affect the animal.

### Increase of pH Affects the alkalinity

- 1) Influence reverse alkalinity cycle which affect the moulting of animal (No Moulting)

## Reverse Alkalinity

When the pH less than 8.3, CO<sub>3</sub> : HCO<sub>3</sub> ratio is 1:3, if the pH increases, the ratio will change, and the level of CO<sub>3</sub> will be more than HCO<sub>3</sub>. It affects the animal moulting. This cycle called as reverse alkalinity cycle.

Remedy : **Check PH**



# Reduces Stress

## Natural pH Controller

Managing high pH in aquaculture is difficult, needs specific management. We designed our product Check-pH, consists of concentrated carbon source, beneficial bacteria, enzymes and minerals. The beneficial bacteria will maintain the water quality and reduce pH along with carbon source and enzymes. It will stop the reverse alkalinity cycle thereby stop moulting problems.

### Usage Directions:

Mix the Check pH - 1 - 2 kg with 25 Lts of water.

Soak it for 5-24 hours and spread the solution throughout the pond

### Dosage



1 - 2 kg / acre / 1 mt water depth.



1 - 2 kg / acre / 1 mt water depth.



**Package size : 1 Kg**

As advised by your aquaculture consultant



A STRONG  
SOLUTIONS FOR  
SUSTAINABLE  
AQUACULTURE





# White Feces Cure

Recently, entire Shrimp Industry affected by White Feces Syndrome (WFS) which caused by different reasons like Poor Feed Quality (due to Mycotoxin – Aflatoxin B1), Gregarines (Crustacean Protozoans), Cyanobacteria (Blue Green Algae), EHP (Enterocytozon hepatopenaei), different Vibrio species and different harmful toxins. White Feces Syndrome (WFS) causes damage hepatopancreas damage and discolour, slow growth, huge size variation, survival loss, loose shell problem, high FCR and Running Mortality Syndrome (RMS) which causes huge economic losses.

## Remedy: WHITE COMMANDO

*Treatment measures are taken by both Feed supplement & Water applications*

### FEED SUPPLEMENTS APPLICATION

#### ➤ Morning 6 am feed supplement:

WHITE COMMANDO – 5-10 gm/1 Kg feed.

Mix 5-10 gm White Commando with 20 gm jaggery, 30 ml raw curd and 50 ml fresh water and keep 8 – 12 hours for fermentation. Mix the ready paste with feed pellets by using PROMISE GEL (20 – 30 ml/kg feed) and dry for 1 hour.

#### ➤ Morning 10.30 am feed supplement:

NATURE ACID: 5 ml/kg mix with feed using PROMISE GEL (20 – 30 ml/kg feed)

#### ➤ Afternoon 2.30 pm feed supplement:

C-BOOSTER: 5 ml/kg mix with feed using PROMISE GEL (20 – 30 ml/kg feed)

#### ➤ Evening 5.30 pm feed supplement:

MAXI-GROW: 10 gm/kg mix with feed using PROMISE GEL (20 – 30 ml/kg feed)



# Broad Spectrum Disinfectant

## A Proven Effective Killer of Viruses, Bacteria, Fungi and Molds

GERM-X contains disinfectants like Potassium monopersulphate compound (Triple Salt), Sodium chloride, Inorganic peroxygen, Buffers and an agent to reduce surface tension.

GERM-X is low toxic in nature, non-corrosive and non-irritating. GERM-X oxidizes the sulfur bonds in proteins and enzymes which disrupt the cell wall and denatured the nucleus of most virus, bacteria and the high detergency of the product effectively kills the pathogens. GERM-X does not affect water quality, dissolve oxygen and plankton density.

### Benefits

- Highly effective against WSSV and MBV.
- Effectively kills pathogens like viruses, bacteria, fungi and molds of shrimp, prawn and fish.
- Reduces toxic bacterial load. Improves water quality.
- Prevents disease prevalence.
- Better survival and FCR.

### Dosage



1.0-1.5 kg/hec, Regular application  
for every 12-15 days once



0.5-1 kg/hec, Regular application  
for every 15-20 days once

**Package size : 500 Gm & 1 Kg.**

As advised by your aquaculture consultant





# Water Application for WFD

**FIRST DAY:**  
Apply WARRIER-80  
2-3.5 litre / acre followed by  
heavy aeration at night time

**SECOND DAY:**  
Apply carbon source like  
molasses (OR) Jaggery  
fermented juice

**THIRD DAY:**  
Apply PRO-VICTER  
1 Kg / acre

Repeat all those applications once in 7-10 days

## HOW IT WORKS

### WATER APPLICATION

#### WARRIER-80

A broad spectrum sanitizer kills harmful bacteria, parasite and fungi

#### FAMENTED JUICE

Carbon source: Retain plankton source and helps in shrimp moulting

#### PRO-VICTER

Inhibit pathogenic bacterial growth and clear the pond bottom sludge

### FEED SUPPLEMENT

WHITE COMMANDO contains probiotics, fermented using molasses/jaggery which produces acids enzyme. It helps the growth of beneficial bacteria. WHITE COMMANDO acts as antioxidant, it's controls myotoxin and toxin binder and also eradicate pathogenic toxin.

NATURE ACID contains propionic acid, ammonium hydroxide, formic acid and sorbic acid. It reduces animal gut pH and lysis the pathogenic microbe cell wall, enhances absorption and assimilation of feed, induces protein digestion, and prevents the parasitic infections.

MAXI-GROW is natural nontoxic enriched feed supplement, contains algal protein, probiotics, enzymes, vitamins, minerals and amino acids. It act as a growth promoter and immuno-stimulator which reduces animal stress.

PROMISE GEL consists of 95% fat and 5% enzyme with enriched dietary nucleotides. During EHP infection, the animal loses its fat molecule. Most of shrimp feeds are protein-based feeds, in order to retain the animal fat during EHP period, Promise Gel is the best product to use.



# Microbial Solution for Nitrite & H<sub>2</sub>S Pollution

Bacto PS™ contains Nitrobacter, Nitrococcus, Thiobacillus, Rhodobacter, Rhodococcus

One ml. Bacto PS™ contains four billions cfu.

## Benefits

- Reduces Toxic Nitrite and H<sub>2</sub>S
- Maintains the Plankton Level.
- Increases Dissolve Oxygen Level.
- Improves Feed intake and growth rate.
- Improves FCR and Survival rate.

## Dosage



Up to 50 DOC: 3-5 Ltr./Acre,  
Above 50 DOC: 5-8 Litre/Acre



3-5 Ltr. / Acre,

## Direction for use

It can be mixed with wet sand and broadcast directly over the ponds.  
Always use in sunny days.  
Store in a cool and dry place.

**Package size : 1, 5, 20 Ltr.**

As advised by your aquaculture consultant





# A Heighly Concentrative Chelated Minerals

A Highly Concentrated Chelated Minerals Formulation With Calcium, Potassium, Magnesium, Sodium, Phosphorous, Copper, Cobalt, Iron, Manganese, Selenium And Zinc Fortified With Vitamins, Enzymes And Amino Acids.

## **Benefits**

- It improves water quality and maintains plankton level.
- Highly water-soluble concentrative mineral mix with more than 80000 us/cm EC (Electrical conductivity) value.
- Legent Min maintains adequate concentration of mineral ions in water.
- Helps to achieve desired levels of alkalinity and hardness.
- Helps in buffering pH fluctuations and maintains pH between 7.5 to 8.5.
- Prevents body cramp and running mortality symptoms (RMS). Improves growth performance and moulting.

## **Dosage**



5-10 kg / acre - once in every 7-10 days for every moulting cycles.



As a feed supplement -  
1 kg / 1 ton feed

**Package size : 10 Kg.**

As advised by your aquaculture consultant



# Ammonia

In aquaculture systems, understanding and controlling ammonia is critical, if it excessively accumulated will become toxic to the animal and the pond eco-system. Toxicity will make the animal lethargic and cause mortality. Ammonia is a by-product of protein. The main source of ammonia is excretion, feed waste and algal crash. These organic loads will settled in the bottom which produce ammonia by decomposition. Severity of ammonia will be more when the pH is more than 8.3

## A Perfect Solution for Toxic Ammonia Pollution

If pH increases, even 0.2 ppm ammonia ( $\text{NH}_3$ ) will become toxic to animal. Safe-AM will be great remedy for the problem. Safe-AM is a combination of Yucca Schidigera plant extract >40% (saponin and glycol components), probiotics (Bacillus, Nitrosomonous, Nitrobacter and Thiobacillus) and enzymes (Lipase, Amylase, Protease and Cellulase). Safe-AM can absorb 100-300 times of its own weight of toxic gases like ammonia, hydrogen sulphide. Safe - AM reduces ammonia stress, toxic odors, increases DO level and reduces pH fluctuations.

### Dosage:



500 - 1000 gms of Safe -AM / one acre / one mtr. water column



100 gms of Safe-AM / one acre

### Usage Directions:

Can be mixed with zeolite or wet sand and spread over the pond.

### Package size : 500 Gm

As advised by your aquaculture consultant



# Feed Binders

## An Organic Feed Binder & Attractant

Promise-Gel is a binder gel which mainly helps to bind feed supplement with feed. Moreover, Promise-Gel contains a highly concentration of trace minerals, vitamins, enzymes (protease, amylase, lipase, phytase) essential amino acids (L-lysine, DL-methionine) and toxin binder. It helps to increase feed attraction & feed intake, and the enzyme helps to improve digestion, improves immune system of the shrimp and fish and improves biomass & FCR.



### Dosage :



P. monodon / L. vannamei:  
30 to 50 ml / 1 kg feed



1 ltr / 1 ton of feed. For best result,  
continuous use is recommended

### Usage Directions:

Mix the Promise-Gel with feed.  
Dry the feed for 20-30 min.

**Package size : 5 & 20 Ltr.**

As advised by your aquaculture consultant



# Microbial solution for Nitrite Problems



# Nitrite

Nitrite in aquaculture system is due to feed waste, feces and plankton crash. The excess nitrogen will be converted into ammonia (TAN, NH<sub>3</sub>, and NH<sub>4</sub><sup>+</sup>), which is then converted into nitrite (NO<sub>2</sub>), simultaneously into nitrate (NO<sub>3</sub>) by denitrifying bacteria. But under low pH condition, the converted nitrite becomes toxic to the animal.

## PRO-NITE

Microbial Solution for Nitrite Problems

If pH is low (7.2 – 7.7 or less), will be toxic for low NO<sub>2</sub>-level. Hence, the role of probiotics in de-nitrification cycle is important to reduce toxic effect of NO<sub>2</sub>- . Pro-Nite contains Thiobacillus, Micrococcus, Nitrosomonas, Nitrobacter and enzymes. Pro-Nite will reduce toxic nitrate, H<sub>2</sub>S, increase DO level, improves feed intake capacity and growth rate.

### Dosage



Apply Pro-Nite 1.0 - 1.5 Kg/hectare/meter of water column



150 - 200 gm of Pro-Nite/1 acre

### Usage Directions

Can be mixed with sand, and broadcast over pond recommended dosage by consultant.

### Other way to reduce nitrite toxicity

If pH is low, nitrite becomes toxic, Hence, we can increase pH in order to reduce nitrite toxicity

#### Low pH remedy:

To increase pH - For up to 40 DOC - Apply Agrilime (CaCO<sub>3</sub>)

After 50 - 75 DOC - Apply Quick lime (CaO)

After DOC 75 - End of culture - Quick Lime (CaO) & Costic Soda (NaOH)

Increase water exchange, apply zeolite



**Package size : 500 Gm.**

As advised by your aquaculture consultant

Better nutrition  
for healthy life...



# An Advanced Immunity Booster

An Advanced Green Technological  
composition of 12 Herbs  
fortified with Vitamins,  
Enzymes and Amino Acids

## Benefits

- Boosts immunity and improves digestive system
- Improves health of Hepatopancreas and Liver
- Enhance faster nutrition absorption capacity of Gut
- Reduces the toxicity of LiverHelps in faster growth and better FCR
- Provides high body strength and fight against different environmental diseases and adverse climatic conditions

## Dosage



5 to 10 gm per kg feed



2 to 5 gm per kg feed

**Package size : 1 Kg.**

*As advised by your aquaculture consultant*

# BETTER NUTRITION FOR HEALTHY LIFE



# A Highly Concentrated Mineral Mixture Fortified With Various Enzymes And Amino Acids

Highly concentrated Macro and Micro minerals (Calcium, Phosphorus, Magnesium, Potassium, Iron, Zinc, Manganese, Cobalt, Copper, Iodine, Selenium, Molybdenum, Chromium, Aluminium, Sodium) with various Enzymes and Amino Acids

## Benefits

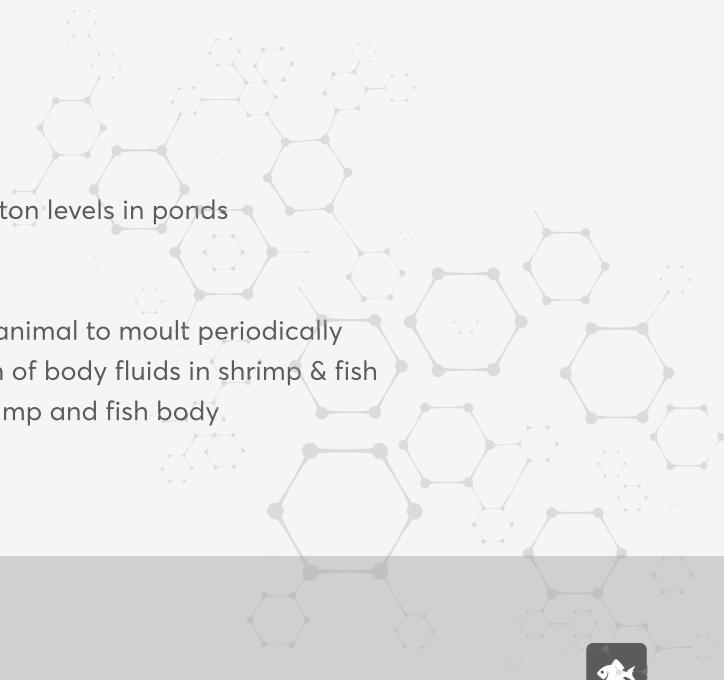
- Improves the growth & shell formation of shrimp
- Maintains pond water ecosystem
- Enhances the pond fertility & maintains the plankton levels in ponds
- Reduces the body cramp in shrimps
- Water soluble with high EC levels
- Enriches the nutrients levels in water & Helps the animal to moult periodically
- Maintains and controls the osmotic concentration of body fluids in shrimp & fish
- Improves Metabolic and Enzymatic activity in shrimp and fish body
- Improves overall growth, survival and FCR

## Dosage



Before Stocking: 10kg per acre  
After Stocking: on stocking ratio  
10-20 Pcs/Sq. mt - 5 kg Per Acre  
25-40 Pcs/Sq. mt - 10 kg Per Acre  
45-60 Pcs/Sq. mt - 15 kg Per Acre

**Mix thoroughly with water and spread uniformly all over the ponds.**



Before Stocking: 5kg per acre  
After Stocking: on stocking ratio  
02-05 Pcs/Sq. mt - 2 kg Per Acre  
05-10 Pcs/Sq. mt - 5 kg Per Acre  
15-20 Pcs/Sq. mt - 8 kg Per Acre

**Package size : 10 Kg.**

As advised by your doctor or consultant



# A Well Balanced Mineral Mixture

DIAMOND MIN is a well-balanced Mineral Mixture with reach Nutrients like Macro Minerals (Calcium, Potassium, Magnesium, Phosphorus, Sulphur) and Micro Minerals (Copper, Cobalt, Iodine, Iron, Manganese, Selenium, Zinc).

## Benefits

- It improves water quality and maintains plankton level.
- Maintains adequate concentration of mineral ions in water.
- Helps to achieve desired levels of alkalinity and hardness.
- Helps in buffering for pH fluctuations. Maintains pH between 7.5 to 8.5.
- Helps in proper osmoregulation and periodic moulting.
- Maintain productivity and high growth of shrimp, prawn and fish.

## Dosage



7-10 kg / acre/once in every 7-10 days for every moulting cycles.



5-7 kg / acre/once in every 15-20 days depending on stocking density.

## Application:

Mix Diamond Min in 50 Ltr. Of water and broadcast uniformly throughout to the pond

**Package size : 20 Kg**

As advised by your aquaculture consultant





# Diatoms & Plankton Development

In aquaculture, diatoms and planktons play an important role to stabilize pond ecosystem and water quality. Both nutrients and environment conditions are required for the development of phytoplankton blooms. The major factors that prevent the phytoplankton development are nutrient deficiency from infertile soil, poor water quality and unfavorable physical conditions such as pH, weather changes and over stocking etc. The absence or poor plankton development in ponds causes decrease in dissolved oxygen level, increases the rate of cannibalisms.

Bloom Booster is a Non-toxic well designed formula of Siliceous Micronutrients like Si, Fe, Ca, Mg, Mn, Al, Nitrogen and Phosphorous

## Benefits

- To increase the level of dissolved oxygen and for the reduction of toxic gases like ammonia, nitrate, hydrogen sulphide in the pond.
- Plankton act as a natural shelter for the animal and in turn reduces the rate of cannibalism which improves the survival rate.
- Stabilizes pond water quality and lower the level of toxic compounds.
- Diatoms are natural live feed elements for animals and plankton stabilize pond ecosystem.
- Helps to increase and stabilize water temperature and pH.
- Reduces the load of pathogenic and un-wanted microbial populations by competing with available nutrients in the water.

## Dosage



7 – 10 kg / 1 acre of pond.



5 – 7 kg/1 acre.

## Application:

Mix Bloom Booster in 50 Ltr. Of water and broadcast uniformly throughout to the pond

**Package size : 20 Kg**

As advised by your aquaculture consultant



# Black & Brown Gill Infections

Black & Brown Gill infections is mainly due to fouling organisms, protozoa and bacteria settle on the gill surfaces of the shrimps which cause inflammation of tissues. These fouling organisms become problematic while the pond condition is not good which cause slow growth and lowered the survival of shrimp.



## Remedy: CLEAR GILL

A Biochemical Composition to treat Brown and Black Gill Problems.

Clear Gill is a mixture of high quality bio-chemical compound. It controls the black & brown gill problems, reduces the bacterial load and improves water quality and animal health.

## Dosage



Use 300 - 500 ml/ 1acre / 1 mtr water depth.

## Usage Directions

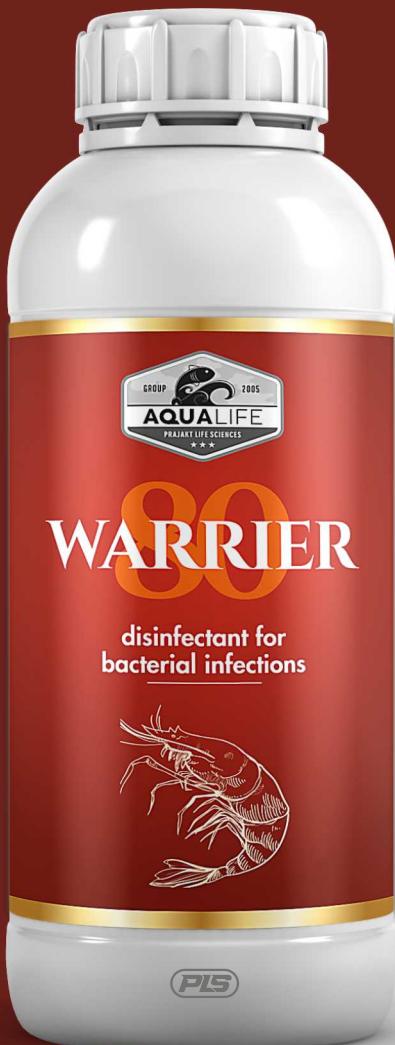
Mix the Clear Gill with 40 liters of water and spread the solution throughout the pond surface.



**Package size : 500 ml.**

As advised by your aquaculture consultant





# Disinfect Bacterial Infections

WARRIER 80 contains Benzal Konium Chloride 80%

## Benefits

- Control water pollution and improve water quality parameters.
- Disinfectant for all types of Viral, Bacterial, Protozoan and Fungal infections.
- Induces complete moulting for shrimp and prawn.
- Helps to cure from Black Gill and Brown Gill for shrimp and prawn.
- Helps to faster recovery from infections caused by external wounds and damages.
- Solution for Tail Rot, Fin Rot, Gill Rot, Swollen Gills and Broken Appendages in fish.
- Solution for Parasites, Zoothamnium and other Algal attachments on shrimp, prawn and fish.

## Dosage



1-2 Ltr / acre / one meter depth of water column.



1-2 Ltr / acre / one meter depth of water column.

**Package size : 1 & 5 Ltr**

As advised by your aquaculture consultant



# A Multi Functional Effective Gut Probiotic

Multi strain Gut Probiotics (Bacillus sp., Lactobacillus sp., Saccharomyces sp.) fortified with Multi Vitamins, Enzymes and Amino Acids.  
100 grams A1 SHELL contains 10 Billions CFU

## Benefits

- Promote faster nutrient absorption and digestion process
- Inhibits the growth of pathogenic microbes in gut
- Helps in body metabolism and pathological process
- Helps to improve detoxification and muscle strength
- Enhances immunity and better FCR
- Promotes faster growth and survival rates
- Maintains healthy gut micro biota of prawn, shrimp and fish

## Dosage



P.monodon / L.vennamei: 5 - 10 gms / 1 Kg of pellet feed.



1 Kg / 1 ton of feed

Mix the A1 Shell with clean water and apply to the feed then dry the feed for 20 minutes.  
Coat the feed with Promise Gel.

**Package size : 1 Kg.**

*As advised by your aquaculture consultant*



# Boost Immunity Reduce Stress

Natural Alternative to Vitamin-c Fortified with Multi-Vitamins

## Benefits

- Controls stress due to various factors
- Aids in formation of exoskeleton
- Helps improve the immunity and disease resistance of aquatic species and improves survivability
- Improves survival rate
- Promotes growth and increases body weight
- Improves FCR

## Dosage



5 gms per kg of feed

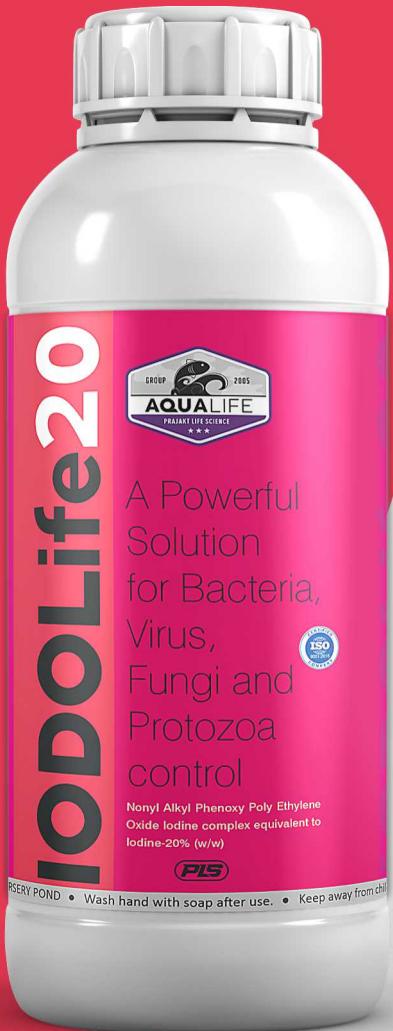


2-3 kg per ton of feed

Mix the C Booster with clean water and apply to the feed then dry the feed for 20 minutes. Coat the feed with Promise Gel.

**Package size : 500 Gm.**

As advised by your aquaculture consultant



# A Powerful Solution for Bacteria, Virus, Fungi and Protozoa control

Nonyl Alkyl Phenoxy Poly Ethylene Oxide Iodine complex equivalent to Iodine-20% (w/v)

## Benefits

- A broad spectrum powerful sanitizer to control Bacterial, Viral, Fungal and Protozoan problems
- Effectively kills Gram Positive and Gram Negative Bacteria
- Effectively kills Vibrio colonies (Green and Yellow colonies)
- Controls Black Gill and Brown Gill problems
- Controls Protozoan infections like Zoothamnium and Vorticella
- Controls Red diseases and Tail Rot problems in Shrimp and Fish

## Dosage



500 – 750 ml Per Acer  
Properly mix with 20 – 30 Lt. of water and spread to the water column followed by aeration.



250 – 500 ml Per Acer  
Properly mix with 20 – 30 Lt. of water and spread to the water column followed by aeration.



**Package size : 1 Ltr.**

As advised by your aquaculture consultant



# A Unique Bio-solution to Control Parasite

Biologically modified Anti Parasite compound added with natural herbs, different salt compounds and beneficial organisms .

## Benefits

- Effectively controls Argulus and Lernaea from FISH CULTURE PONDS
- Effectively damages the life cycle of Lice and Anchor Worm, also controls reproductions
- Effectively works on wounds, swelling and ulcer on outer side of fish body.
- Effectively works on Tail & Fin Rot problems of fish
- Eco-friendly, no effect on pond water colour (Plankton density)



## Dosage



150 – 250 ml Per Acer Properly mix with 20-30 Lt. of water and spread to the water column followed by aeration

**Package size : 1 Ltr.**

As advised by your aquaculture consultant



# A Unique Blend of Faster Growth Promoter

Highly concentrated multi vitamins (A, D3, E, K and B12), Macro and micro minerals, probiotics and prebiotics fortified with various enzymes, protein hydrolysate, growth promoter and immunity booster

## Benefits

- Improves digestion and enhances the metabolism of Carbohydrate, Protein and Fat.
- Improves feed consumption (Improves FCR)
- Faster growth and more yield with uniform growth
- Balance gut pH of fish
- Improves Liver Functions and Performance.
- Improves immunity to fight against pathogens
- Ensure proper nutrition of fish body

**Package size : 1 Kg.**

As advised by your aquaculture consultant

## Dosage



**Feed Mixing** - Daily 10 gm NutriLife per kg of fish feed

**Pond Application** - 10 kg NutriLife per acre once in a 7 - 10 days gap, mix properly with 20 - 30 Lt. of water and spread throughout the fish pond



# POND BOTTOM CLEANER

A Natural Granule Zeolite Fortified With Probiotics & Enzyme

## Benefits

- Absorbs toxic gasses like Ammonia, H<sub>2</sub>S, CO<sub>2</sub>, SO<sub>2</sub>, CO and other poisonous gasses.
- Improve water quality by increasing dissolve oxygen level.
- Reduces BOD and COD levels and keeps shrimp, prawn and fish stress free.
- Prevents sludge formation at pond bottom and improves the growth of phytoplankton and zooplankton.
- Improves animal health condition and survival rate.
- Reduces water turbidity and enhance water softness.

## Dosage



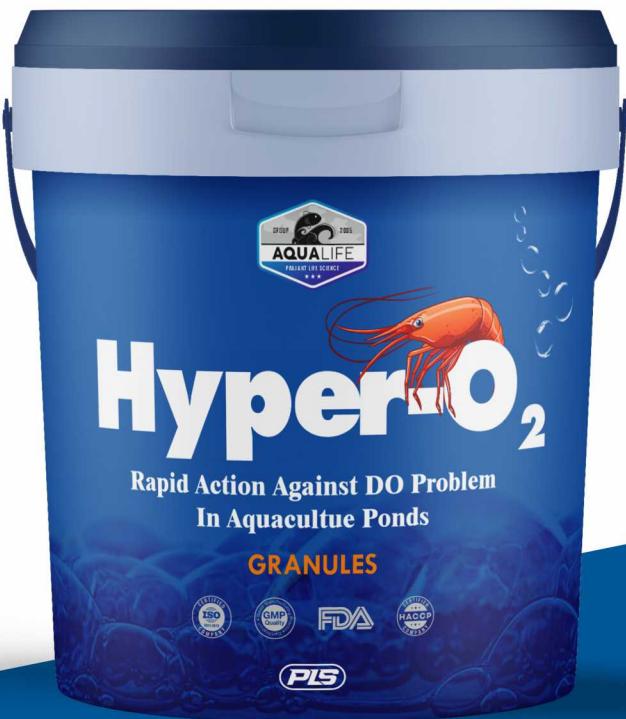
15 – 25 kg per acre depending on pond bottom condition



10 – 15 kg per acre depending on pond bottom condition

**Package size : 1 Kg.**

As advised by your doctor or consultant



# Dissolved Oxygen (DO)

OXYGEN is the most important parameter in aquaculture. DO level in pond is depends on 3 factors.

- 01) Oxygen is not much dissolve in water and have only limited capacity to hold oxygen
- 02) Rate of oxygen consumption by animal, plankton and other organism in aqua pond.
- 03) Atmospheric oxygen diffusion in pond water (increased by aerator)

These factors cause changes in the DO level in aquaculture eco-system. Generally, most aquaculture species will grow and thrive within a DO range of 5-12 mg/L (ppm). However, if DO level decreases below 4 mg/L animal feel stress, stop feeding and cause death.

## Hyper-O<sub>2</sub>: High Quality Oxygen Releaser

### Benefits

- Hyper-O<sub>2</sub> is act as an oxidizing agent which oxidises toxic gases in the pond.
- Maintenance of DO level is important to tackle the effect of nitrite (NO<sub>2</sub>).
- Contains high quality oxygen releaser which releases oxygen when applied in the pond.
- Oxygen stability (increased O<sub>2</sub> level) is maintained few hours after application.
- Increases dissolved oxygen level, assist the animal to recover from DO stress, and helps in animal moulting.
- Enhances the degradation of organic waste.
- Reduce BOD and COD level in the pond it's turn to anaerobic to aerobic.

### Dosage



1 - 2 Kg / 1 acre  
1 meter water depth



0.5 - 1 Kg / acre  
1 meter water depth

### Usage Directions

Mix the Hyper-O<sub>2</sub> only with dry sand and apply to the entire surface of the pond.

**Package size : 1Kg.** (Tablet)  
**0.5 & 10Kg.** (Granule)

As advised by your aquaculture consultant





# A High Grade Water Softener

New Generation Flocculator and Toxin remover for use in Aquaculture Ponds

A Unique Combination Of Ametox, Dodecyl Sodium Sulfate, Acetic Acid And Hydrated Sodium Alumino Silicate (HSAS)

## Benefits

Aqua Soft provides highly effective synergistic combination of flocculating and detoxifying agents to improve survival rate and growth rate of shrimp, prawn and fish in Aquaculture ponds.

## Dosage

Aquaculture feeds : 5-10gm / kg feed  
Aquaculture ponds : 1 to 2 kg / acre  
store in cool dry place and product from direct sunlight.

**Package size : 10 Kg.**

*As advised by your aquaculture consultant*



# An Environment Friendly Green Technology

A Strong Organic and Dispersing Compounds with High Chelating Value

## Benefits

- A highly chelating organic compounds
- High capacity to disperse sediments and unwanted heavy metals in the culture ponds
- High calcium bonding ability
- Acts as a natural softener
- Insists in free moulting process for shrimps and prawns
- Removes excess calcium deposition from exoskeleton on shrimp body
- Helps to prevent double shell problems in shrimp
- Lock the turbidity of culture ponds
- Helps in periodic moulting
- Ensure faster growth of Shrimp, prawn and fish

## Dosage



5 Kg. per hectare



3 Kg. per hectare

**Package size : 5 Kg.**

As advised by your aquaculture consultant





# Pond Bottom Cleaner

High quality aquaculture grade natural zeolite fortified with Active Charcoal with highest cation exchange capacity (CEC)

## Benefits

- Absorbs toxic gasses like Ammonia, H<sub>2</sub>S, CO<sub>2</sub>, SO<sub>2</sub>, CO and other poisonous gasses.
- Improve water quality by increasing dissolve oxygen level.
- Reduce BOD and COD levels and keeps shrimp, prawn and fish stress free.
- Prevents sludge formation at pond bottom and improves the growth of phytoplankton and zooplankton.
- Improves animal health condition and survival rate.
- Reduces water turbidity and enhance water softness.

## Composition

SiO <sub>2</sub>	70-80%
Al <sub>2</sub> O <sub>3</sub>	20-25%
CaO	5-10%
Fe <sub>2</sub> O <sub>3</sub>	2-6%
MgO	2-6%
Na <sub>2</sub> O	1-3%

## Dosage

- 15 – 25 kg per acre depending on pond bottom condition
- 10 – 15 kg per acre depending on pond bottom condition

**Package size : 15 & 25 Kg**

As advised by your aquaculture consultant



BETTER NUTRITION  
FOR  
HEALTHY LIFE





# Highly Concentrated Oral Calcium With Vitamin A, D<sub>3</sub> And B<sub>12</sub> For Livestock, Poultry & Fish

## Benefits

- Enhance egg shell formation & prevent shell thinning.
- Enhance body growth and egg production.
- Improve bone strength.
- Prevents rickets, osteomalacia and perosis.
- Prevents anaemia and hypocalcemia.
- Enhance higher milk yield.
- Vitamin B12 ensure better Feed Conversion Ratio (FCR) and improve hatchability.
- Vitamin D3 ensure better calcium and phosphorus absorption into the body and promote faster growth.
- Vitamin A maintain healthy vision, ensure the normal functioning of organs and immune system, as well as establishing normal growth and development

## Composition

Each 1000 ml contains	
Calcium Gluconate	30000 mg
Calcium Lactate	25000 mg
Vitamin A	50000 IU
Vitamin D3	150000 IU
Vitamin B12	1500 mcg
Choline Chloride	25000 mg



**Package size : 1 & 5 Ltr.**

As advised by your doctor or consultant

## Dosage



**Fish :** 10 ml per kg feed



**Large Animal :** 100-150 ml daily  
**Small Animal :** 40-80 ml daily



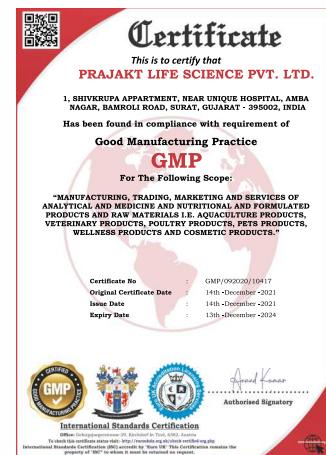
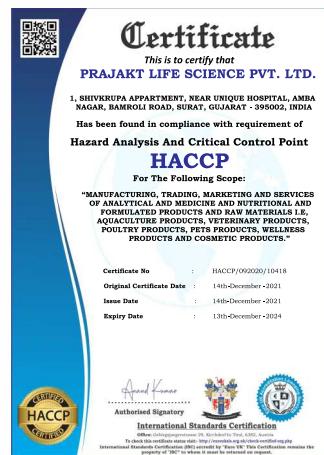
**For Each 100 Birds Chicks :** 20 ml daily  
**Growers & Broilers :** 40-60 ml daily  
**Layers & Breeders :** 80-100 ml daily

For 5-7 days



# LAB & EQUIPMENT







## PRAJAKT LIFE SCIENCE PVT. LTD.

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