

### 1. Does I need to operate aerators continuously in my shrimp pond?

- It depends on your stocking density and type of the cultured species. When it comes to the shrimp pond, Aerators are operated to improve the DO (Dissolved Oxygen) levels in the pond which is very crucial parameter for the survival of the shrimp.
- Simple way to find out the necessity of aerators is to check the DO with DO meter. If you find DO less than 5 then you have to turn on your aerators immediately.
- In addition to this, If you found shrimp jumping on the surface of water or roaming near pond dykes then also it may be indication for need of aeration. (upon verifying with other factors)

### 2. What I have to do If DO levels in my pond found less than 4ppm.

- Shrimp feels difficulty in breathing and faces stress when DO levels fall below 5ppm. To counter this turn on the aerators immediately and along with that apply **OXYFILL** (tabs/ Granules) in the feeding and other anerobic zones to improve DO levels immediately.
- You have to use **OXYFILL** 1.5-2.5kg per ACRE if you found DO levels 3.5-4.5ppm and 3.0kg if DO levels are less than 3ppm.
- **OXYFILL** is a special trade mark product of our CodexBio with the perfect combination of effective oxygen releasing molecules meant for aquaculture use. (NOTE: Granules are more effective than TABS).

### 3. How can I regulate TAN levels in the shrimp ponds?

- **AmmoFix** is our advanced solution to regulate and control the TAN levels in the culture ponds. In recent intensive and Semi intensive aquaculture practices where high productivity is targeted, there is every chance for accumulation of Toxic gases like Hydrogen Sulphide and Ammonia at the pond bottom. If they were not properly managed, cultured species will fall under severe stress and will be susceptible for opportunistic pathogens. If it continuous survivals of the cultured species will badly affects.
- **AmmoFix** is a unique combination of pure *Yucca Schidigera* along with facultative probiotics and enzymes.
- Our **AmmoFix** absorbs Ammonia and other harmful gases from water column; in addition to that it will block the Urease enzyme which releases ammonia from the urea.  
(**AmmoFix** Liquid is more efficient that Powder).

#### 4. How can I stop releasing obnoxious gases and prevent black soil from pond bottom?

- In Aquaculture ponds accumulation of organic substances like unconsumed feed, dead decaying mater and Faecal matter of the shrimp/ fish is the common problem which leads to the release of harmful toxic gases like Ammonia, Hydrogen Sulphide, Nitrite etc and may leads to the produce the black soil at the pond bottom.
- These gases can impact the D.O levels and pH of the pond water and also leads to the increase of pathogenic load. These toxic gases are very harmful for the shrimp fish culture and diseases followed by mortality in the ponds.
- **ZEONIEX™** is formulated with the combination of high strengthened Zeolite, having cation exchange capacity (CEC) as high as 400 along with the water probiotic. This probiotic will helpful in the better management of the pond bottom.

#### 5. What should I do when shrimp faces loose/soft shell or Tail cramps?

- Vannamei can be reared vide range of salinities starting from nearly freshwater to high saline water ponds. Low saline ponds are generally exhibits mineral deficiency, which may leads to loose and soft shell and tail cramps.
- **Aqua Min plus** is special blend of 100% water soluble and bio available essential mineral and ions with the combination of Calcium, Magnesium, Sodium, Pottasium, Phosporous, which is formulated to counter the mineral and ionic deficiencies in the shrimp ponds.

#### 6. My neighbour ponds facing White faecal and White gut problems. How can I prevent?

- White faecal issue arises because of peeled microvillus of haepatopancreas of the shrimp. This is mainly because of increase in pH in the gut of the shrimp by the action of pathogenic bacteria mainly *Vibrio* spp. Further because of the damaged haepatopancreas absorption will be lowered, which results in poor growth and survival of the shrimp.
- **Digiplus** is the blend of unique organic compounds which can lower the pH of the shrimp gut, creates unfavourable conditions for the growth of pathogenic bacteria and facilitates the digestion and absorption of the shrimp by maintaining healthy micro flora in the gut of the shrimp.

#### 7. How Can I control White muscle in Shrimp farming?

- **NovuMin** is a Chelated organic trace mineral mixture which is formulated with highly available source of chelated organic trace minerals with simultaneous

Methionine value. Trace minerals like Zinc, Copper, Manganese and Selenium will play an important role in shrimp metabolic functions.

- **NovuMin** increases the bio availability of the trace minerals and can help in preventing loose shell and soft shell in shrimps

#### **8. How can we control vibriosis, white faecal issues and improve shrimp health and General immunity?**

- CodexBio launched **GUTACID**, a unique blend of liquid organic acids to control the Vibriosis and white faecal issues in the shrimp by maintaining the gut pH acidic. This proven formula inhibits the pathogenic bacteria and promotes the growth and survival of the cultured species.
- It promotes the absorption of nutrients by the gut of the shrimp and enhances the health and general immunity.

#### **9. Can we prevent AHPND/ EMS in shrimp culture?**

- AHPND (Acute Haepatopancreatic Necrosis Disease) commonly called as Early Mortality Syndrome severely affects the aquaculture industry worldwide. Studies revealed that the feeds enriched with essential oils can be able to prevent the AHPND/EMS infection.
- Codex Biosciences launched the molecule **GemPack** having a combination of essential oils extracted from *Origanum vulgare* and organic acids which is a third generation blend that prevents the majority of the diseases in aquaculture. The added value of **GemPack** as a feed additive in aquaculture feed mills dressing at farm level will help in enhancing the productivity of fish and shrimp farms by preventing many diseases like *Vibriosis*, AHPND and one month mortality syndrome.

#### **10. How can I control Black/ Brown Gill problem in shrimp/ Fish?**

- CodexBio developed its trade mark product with the brand name **SANGOLD** to address the challenges of disease incidences and to control and prevent in a sustainable manner for all the aquaculture ecosystems.
- It is a specific blend of organic acids with formaldehyde and base buffers and works as a very effective biodegradable sanitizer and disinfectant which has been accepted all over the world to fight against diseases in aquaculture ponds.
- **SANGOLD** is a unique product which is 100% biodegradable and approved by the USFDA and European Union.

#### **11. How can I mix all these feed additives with the feed?**

- In view of the environmental and culture challenges, feed additives became an integral part of the shrimp farming for desirable growth and disease management. Perfect addition of aquaculture inputs to the pellet feeds is possible only with a firm binder to reach the gut of the shrimps and fishes.
- In the interest of sustainable aqua culture management and productivity, Codex Biosciences has formulated a perfect Binder with a brand name **GelBind**, having enriched nutrition values to meet the farmer's requirements. **GelBind** is 100% bio-available, economically viable high performing binding gel that delivers the feed additives to the cultured species.

#### **12. How can I manage the Hardness or Alkalinity in the pond water?**

- Hardness and alkalinity are the two important parameters in the shrimp farming. Hardness in the water is mainly because of Calcium and Magnesium ions present in the water. This may cause algal blooms also in the pond.
- To counter this CodexBio developed a unique solution with the brand name **Nuvosoft**- Blend of Di sodium EDTA having highest chelating strength, along with activating compounds. EDTA blocks the excess divalent metal ions effectively and make them unavailable in the water column.

#### **13. What is Mera Bac W probiotic and how it is different and effective from other commercial probiotics?**

- The aquatic animals basically faces two types of threats in the ecosystem, a rent from pathogenic living organisms like *Vibrio* spp, *Aeromonas* spp. etc, and other threat from toxic and noxious gases generated due to organic waste such as Ammonia, Nitrite, Nitrate & Hydrogen Sulphide resulting excess suspended organic matter in the pond bottom.
- **Mera Bac W** is a unique mixture of *Bacillus* and *Pediococcus* bacterial strains, which can proliferate 100% in all aquaculture ecosystems.
- Unlike other commercial probiotics, **Mera Bac W** contains helpful probiotic strains that produces enzymes such as protease, lipase amylase, pectinase, alpha and beta galactosidase and cellulase, which can facilitates the digestion of the shrimp.

#### **14. How can I prevent tail/ Antenna rot disease and clear the parasites in the culture pond?**

- The Aquaculture pond ecosystem is highly sensitive due to uncontrollable conditions and continuous feeding in the ponds. As the stocking densities are increasing in the culture ponds the healthy management of the ecosystem is becoming more important for the farming community.
- **Bioklean C80** is a perfect disinfectant to prevent the pathogenic agents that cause diseases in the culture ponds.

#### 15. How can I control pathogens and secondary infections in fish ponds?

- Managing water quality an important factor for successful aquaculture species such fish and prawn.
- Due to water quality bacteria, protozoa, other parasites (followed by even virus can cause diseases for fish and prawn which effects of the culture
- Disinfectant has a major role in managing water quality by controlling the disease causing bacteria, fungal other parasites an virus.
- **SANFISH** is a blend of strengthful disinfectants, effective compounds with stabilizers useful for aquaculture, which supports the health management of fish and prawn, which increased survival rate as well as profitability.

#### 16. Is there any sustainable way to utilize the organic waste in the pond?

- Codex biosciences developed **Rhodo-CB** with a unique combination of probiotic strains of Rhodococcus and Rhodobacter species which are very effective photo synthetic probiotics, that reduce waste loading in culture systems and improve the water quality in aquaculture ponds. **Rhodo-CB** break down the organic debris and detritus and converts them into valuable nutrients, which are used for development of phyto and zooplankton.

#### 17. Is there any mineral mix for fresh water fish farming?

- Replacement of fish meal with vegetable proteins in the formulated fish feed manufacturing often leads to the shortage of Methionine and the balance of other essential amino acids. **MMUF Grofish** contains the special combination of essential minerals along with amino acid Methionine and potassium iodide, which full fills the nutritional needs of fresh water fishes which addresses the gap between the mash feed and formulated feed in the culture practices.