

9. If water quality and the pond bottom are good, shrimps are healthy and growing well there is no need to exchange water.



10. If the water color is too dark, do not use any chemicals to kill the algae, instead change 10 cm of water, if you can. If you cannot, stop feeding during this period



11. To control water pH within the optimum range of 7.5-8.5, and limit diurnal pH fluctuation to less than 0.5, agrilime should be applied regularly.



12. Agrilime should be used after every water exchange or after periods of heavy rain. If you have acid soil or orange water, apply quick lime (CaO) along the pond banks.



13. Dissolved oxygen (D.O) should not be allowed to drop below 3 ppm at any time. Aeration is required after 30-40 days of culture during late evening to early morning period in ponds with >5 pcs per meter density.



14. The position and orientation (clockwise direction) of the aerators should encourage the maximum water flow within the pond adequate to concentrate waste in the centre of the pond and provide a clean feeding area.



15. Do not use in your pond any equipments (nets, bowls, floats etc) which are used in another pond, because they might carry some pathogens.



SHRIMP HEALTH MANAGEMENT

REDUCING SHRIMP DISEASE RISKS THROUGH
ADOPTION OF BETTER MANAGEMENT PRACTICES



3. Water Quality Management



Silda, Orissa

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BACKGROUND

As a part of the technical collaboration between MPEDA and NACA on shrimp disease control in India, village demonstration programmes were conducted between 2002 to 2005. These demonstration programmes involved organizing small scale farmers into self-help groups known as “Aquaclubs” for adoption of “Better Management Practices (BMPs)” towards capacity building among the farmers.



Water quality has a great influence on the efficiency of shrimp production. Maintaining good water quality is very important to reduce disease risks and to achieve better shrimp production.



IMPORTANT STEPS

- 1) Plankton bloom is essential to successful shrimp culture. In early stages of culture (4 to 6 weeks) if the color of the pond water is clear, add mixture of organic (10-30 kg./ha.) and inorganic fertilizers (1-3 kg./ha.) to get bloom.

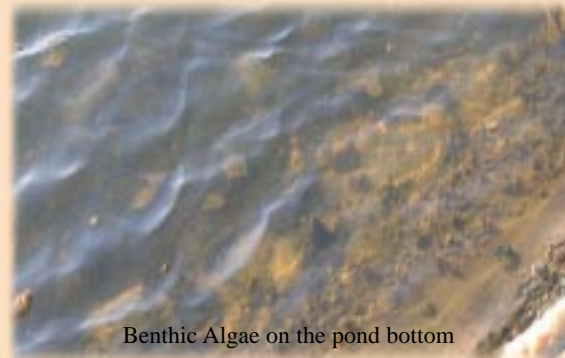


Green Water



Clear Water

2. Sufficient water must be kept in the pond to reduce risks of the growth of benthic algae. The water depth in the shallowest part of the pond should be at least 80 cm.



Benthic Algae on the pond bottom

3. If there are benthic or floating algae in the pond, remove them. The best approach is manual removal



4. If there is foam on the water or the color suddenly becomes clear, change 5-10 cm water and add lime (100 to 200 kg Agri. lime per ha).



5. Water should be drained for about 5 to 10 minutes beginning in the second month and atleast once in a week thereafter.



6. During water exchange, each time the exchange should not exceed 30% of water in the pond and ideally it should be 10% of the water each time.
7. It is recommended to use water for exchange only from a reservoir. Water should be left for at least 7 days in reservoir before pumping to the grow-out ponds.
8. Do not exchange water when there is drainage from nearby disease affected pond. Wait until the next high tide.

