

8. Chain dragging can help to dislodge the benthic algae but this practice should not be applied to more than ¼ of the pond bottom in any one day. Remove the benthic algae when it floats to the surface.



Chain dragging



Benthic algae

9. Take out accumulated benthic algae/black soil at the pond corners regularly.



Benthic algae



Black soil at corner

10. If the water is too green, exchange water to prevent collapse of the bloom and subsequent settling of dead algae on the pond bottom



11. If bad soil was detected during production cycle, make sure that the better management practices for pond preparation, feeding are used (refer brochure no.1 and 4).

12. During routine application of Agri. lime to the pond, spread more lime in areas where the pond bottom is bad.



13. After the harvest, remove black sludge either in wet condition manually or after drying using machines. If possible remove the black soil away from the pond site to a place where it does not cause any environmental problems.



14. If bottom black soil cannot be removed away from the pond site and instead has to be deposited on the pond bunds, make sure to cover it with good soil and compact it properly to avoid leaching back to the ponds.



15. Plant coconut trees on the pond bunds if possible. Grow grass on the pond bunds to prevent erosion and to minimize bund damage during flood situations



← Grass on the pond bund

Coconut plants on the pond bund ⇒



SHRIMP HEALTH MANAGEMENT

REDUCING SHRIMP DISEASE RISKS THROUGH
ADOPTION OF BETTER MANAGEMENT PRACTICES



5. Pond Bottom Management



Hingraj, Gujarat

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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.



Pond bottom management is one of the most important requirements for successful shrimp production. Poor pond management is one of the main causes for bacterial disease in shrimp and it is thought also to increase the risk of white Spot disease. As the crop progresses, the bottom condition deteriorates depending on the stocking density and feeding practice. With proper management, pond bottom condition can be improved thus contributing to better shrimp survival and improved production.



IMPORTANT STEPS

- 1) Check if the bottom soil is black or smells bad. If the soil is black or smells it means pond bottom has deteriorated. If the bottom soil is not black or smelling bad, then it can be considered as ok.



2. One month after stocking, the pond bottom around the feeding area, trench, centre, corners and outlet gate should be observed weekly.



3. If the soil color is black and smells bad, try to spread the feed further away from the dike (middle feeding). Avoid feeding in areas where the soil is black. Reduce the feeding rate for couple of days and change 5-10 cm water.



4. Rapid consumption of feed from the feed trays can be an indication of poor pond bottom and not necessarily an indication that more feed should be used



5. During water exchange, the feeding area and other areas where black soil occurs should be mildly and carefully agitated to dislodge the soil from the pond bottom. This will facilitate its drainage from the pond.



6. Ponds fitted with drain pipes should discharge water every day for 5-10 minutes to remove the accumulated solids near the outlet.



7. Good algal bloom should be produced before stocking and maintained. Preventing growth of benthic algae and Hydrilla in the pond helps to prevent pond bottom deterioration.

