

- 8) Dry for 1 week and check if the pond bottom still has black soil. If yes, get the pond wet and plough again until the black color is almost all gone.



- 9) If the soil is acidic or if the pond the water is orange, wash the pond 2-3 times to remove some of the acidity. Ploughing ponds with acid soil increases the acidity of the soil. Therefore ponds with acid soil should not be ploughed, only washed, kept wet.



- 10) The average water pH should be between 7.5-8.5 with daily fluctuation of less than 0.5 to reduce stress on shrimp. The levels of lime application during pond preparation depends on the pH of the soil. Consult with an extension worker to decide the dosage and kind of the lime to apply.



- 11) For every two grow-out ponds one extra pond should be maintained as a water reservoir (i.e., a ratio of 2:1 with respect to water holding capacity of ponds).

- 12) Soon after liming, put at least 2 layers of fine nets (60 mesh per inch) in the inlet. Using a net will help to avoid introducing other animals with the water which could carry disease, compete for food and eat the shrimp



- 13) Ten days before stocking, the pond must be fertilized with either organic or inorganic fertilizer to stimulate the plankton bloom.



- 14 Make sure pond is filled with minimum 80 cm water prior to stocking seed



15. When the color of the water is green the pond is ready for stocking



## SHRIMP HEALTH MANAGEMENT

REDUCING SHRIMP DISEASE RISKS THROUGH  
ADOPTION OF BETTER MANAGEMENT PRACTICES



### 1. POND PREPARATION



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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 during the years of 2002, 2003, 2004 and 2005 (Fig.1). These demonstration programme involved organizing small-scale farmers into self-help groups known as “Aquaclubs” for adoption of “Better Management Practices (BMPs)”. The project has been highly successful in bringing together shrimp farmers to collectively implement better management practices to reduce disease-related losses, cost of production, improve yields and produce quality, antibiotic-free, traceable shrimp. First among 15 BMPs is good pond preparation.



Before a pond can be stocked for a new crop, the excessive wastes accumulated in the pond during the previous crop must be removed and the soil and water conditioned. Stocking of shrimp in a poorly prepared pond may lead to several problems including disease, poor growth and bad water quality. Good pond preparation is key to reducing disease risks and improving shrimp production.



## IMPORTANT STEPS

- 1) The pond bottom should be checked for the presence of black layer when it is in wet condition. If the soil is completely dried then the black layer will turn to a lighter color due to oxidation, making it difficult to recognize that black layer in the soil.



- 2) If the pond bottom is good with out any black soil, then there is no need to remove any soil from the pond. Continue pond preparation from step 10.



- 3) Check if the soil is black or smells bad. If the soil is black or smells it means that the pond bottom is dirty and need to be cleaned



- 4) Remove the waste black soil either using manual labor or with machines when it is dry for 10 to 30 days. Attention should be paid to feeding areas, corners, and the side ditches in extensive farms.



- 5) Removal of waste by machine may lead to lowering the level of the pond bottom and the diffusion of wastes if the workers are inexperienced



- 6) Do not put the black soil on the pond slopes, try to remove it away from the pond



- 7) If black soil cannot be removed, remove the bottom algae and gastropod shells first then plough the pond bottom when wet or get the pond bottom wet for at least 3 days before ploughing.

