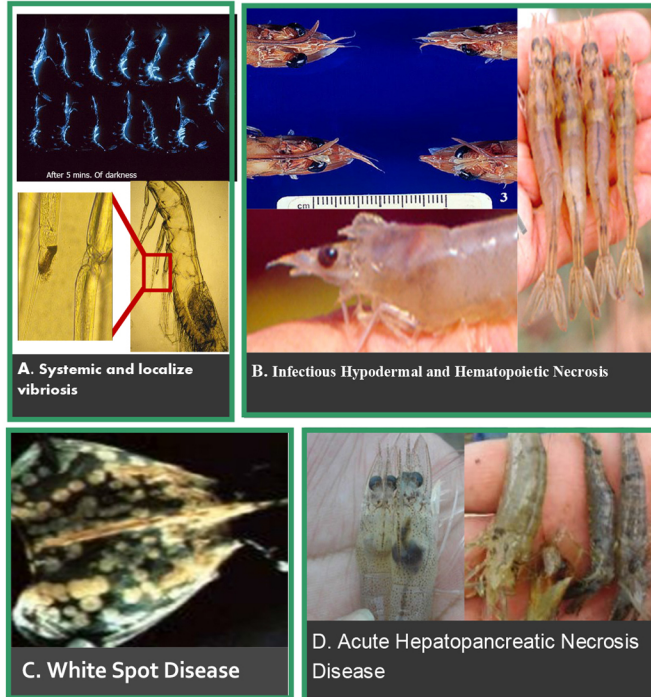


BIOSECURITY IN SHRIMP GROW-OUT FARMS

The success of shrimp aquaculture depends on how successful disease can be prevented and controlled. Disease outbreaks occurred in almost all shrimp producing regions within the country. Faced with this predicament, shrimp growers must manage their farms with much consideration on how to enhance production in the presence of disease threat. Thus, the need for biosecurity methods for better production:

1. Identify the disease and its character.

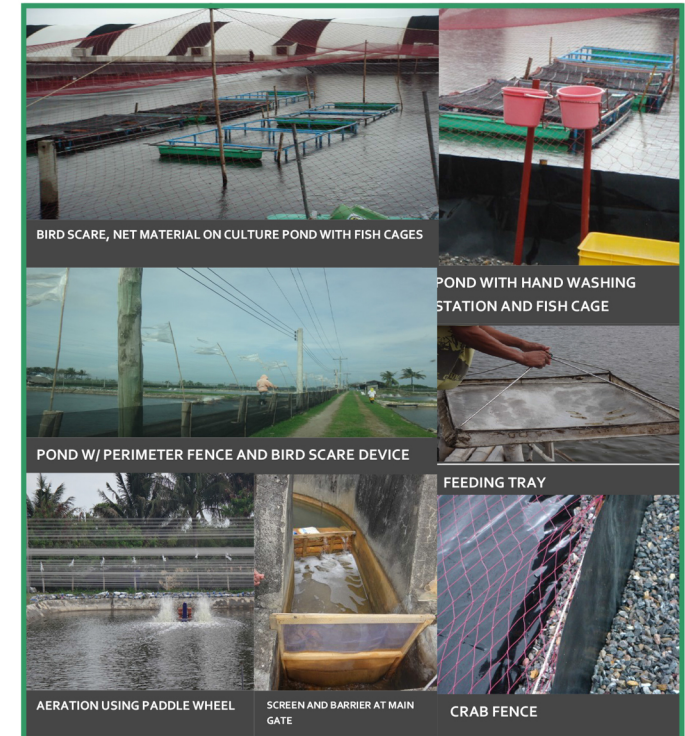
At present, the Philippines has four (4) shrimp diseases which are causing economic losses. They are White Spot Disease (WSD), Infectious Hypodermal and Hematopoietic Necrosis (IHHN), Luminous vibriosis (Lumbac) and Acute Hepatopancreatic Necrosis Disease (AHPND). The most devastating is the WSD. Knowing the nature of these diseases is the most important control factor. Recognizing and understanding how diseases occur, causative agents, how long does it remain active in free water, carriers of disease, vectors, suitable environmental parameters for the pathogen including temperature and salinity among others, will prevent their occurrences.



(Photo Credit: Dr. Donald Lightner (a,b,& c) and Dr. Loc Tran (d))

2. Farm site and design

Farm location should consider the water quality of water sources, labor and community. Farm design should include water reservoirs, sedimentation ponds, high level dikes and gates, barriers on entry and exit, perimeter fence, footbath, crab fence, bird scare device, proper feed storage, durable materials (cage), and sanitary facility should be 50 meters away from water system (designate an area for sludge far from culture ponds).



3. Post-larvae and water treatment.

Use only SPF/SPR post-larvae. Stocking density must be consistent with inputs and facilities to avoid stress to shrimps. Appropriate time of stocking and acclimation of fry. Maintain PL quality checking for standard size, and laboratory analyses for disease. Water quality monitoring and water treatment for water supply and water to be release.



4. Pond Production Management.

Proper pond preparation (plowing, bottom leveling, sun-drying, flushing, liming, fertilization), crop rotation, green water technology, aeration, and feeding management.



BROADCAST FEEDING

5. Human Resources

Technical personnel must have proper and updated trainings on biosecurity. They must be aware of one-way traffic flow, how to handle disease emergencies and lapses in biosecurity. They must wear appropriate attire when working. They must also know the disinfection protocol of equipment and ponds.

Special thanks to Dir. Asis G. Perez, Assistant Director Drusila Esther Bayate and RD Juan D. Albaladejo for their support and encouragement, the growers (R. Gatuslao, J. Vergara, A. Lustre and Charoen Pokphand Foods Phil.Inc.) for their kind assistance and R. Usero for her invaluable assistance.

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2015