Common problems in fish and prawn farming

Dr. Md. Akhtar Hossain

Professor, Dept. of Fisheries, RU

Plankton bloom

- Oxygen depletion at night and high pH level at day time
- Toxic gases through decomposition of algae
- Sometimes mass mortality of fish and prawn occurs

Solution:

- *Supply of clean and cold water as an instant step*
- *Pond fertilization and feeding should be avoided as temporary basis*
- *Silver carp may be stocked to control the excess phytoplankton.*

Formation of red layer

- Presence of excess iron or red algae creates red layer on the water
- Sunlight can not enter into the pond which causes shortage of oxygen and feed.

Solution:

- *Red layer may be removed through pulling out of a rope on the water*

Grasping

- Found during early morning.
- Occurs due to the reduction in dissolved oxygen level
- Fish and prawn become week and prone to death if this situation lasts for a long time

Solution:

- *No feeding and fertilization*
- *Oxygen supply through water agitation by bamboo pole or by swimming or by other means*

- *Spraying clean water*
- *Lime treatment in grasping due to cloudy weather or heavy rainfall*
- *Harvesting fish and prawn for sale if oxygen shortage is found for a long time.*

Deposition of ammonia

- Ammonia at higher pH level is considered very lethal to prawn.
- Causes mass mortality of fish and prawn
- Black spot on the gill of the prawn indicates the high level of nitrogenous substances or wastes and other chemicals
- Blood circulation is found to be affected rapidly with the increase in ammonia level

Solution:

- *To reduce the stocking density*
- *To stop the pond fertilization and feeding*
- *If possible, exchange of water of 30-50% and then pH control*

Clay turbidity

- The pond may be turbid due to the run off water
- This results barrier for sunlight penetration and thereby natural feed production is hampered
- Fish gill may be destroyed due to the turbid water

Solution:

- *The pond embankment should be high enough to protect the entrance of run off water*
- *Staffing the pond embankment to protect the clay particles*
- *Lime or gypsum treatment may control the turbidity*
- *Application of ash or rice straw is also found useful to remove the turbidity.*