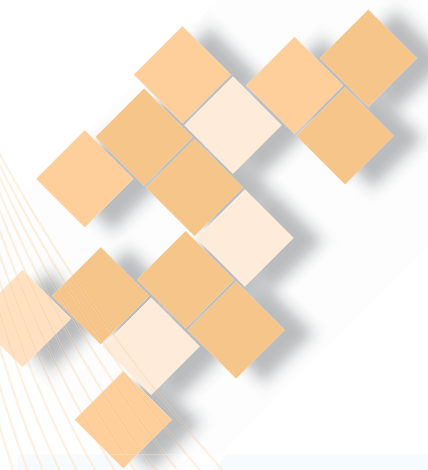


Pond Management



Fish Diseases



Common Freshwater Fish Diseases

Increased interest in Aquaculture has also brought increased interest and awareness of fish health, growth and their survival so as to realize increased revenue. One of the problems that many fish farmers face is the daunting task of identifying problems in their fish ponds. Unfortunately, lack of experience, or subtle signs of stress can let a disease run rampant until it destroys the infected fish (sometimes the whole farm). Most fish diseases are as a result of poor husbandry. It is important therefore to practice good pond management to address the issues of diseases. If you maintain good water quality, keep the right number of fish in your pond, feed them and monitor your water quality you will rarely have problems with your fish ailments.

A few basic precautions when feeding your fish can save you a lot of trouble. Spend quality time with your fish and while doing so carefully watch their movement and response to feeding. Their behavior will reveal a lot more on their health and growth.

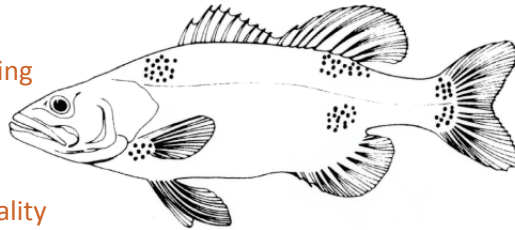
When feeding fish take time to observe if:

- When you first arrive by the side of the pond or tank – the fish are “jumpy”?
- The fish are active or there is absolutely no response when you throw in feed?
- Are eating and swimming well
- Have any signs of scars, spots or open wounds
- The gills are looking healthy and pink – Charles I think more practical would be “The gills of the fish are not gaping i.e. open widely and the fish up on the surface of the water “gaping” with their mouths open “gulping” air.

• Fins are wide open and not clamped to the body

Fish diseases may cause severe losses on fish farms through:

- Reduced growth and production
- Increased feeding cost caused by lack of appetite and waste of uneaten feed rotting on pond bottom causing bad water quality and therefore disease problems
- Increased vulnerability to predation
- Increased susceptibility to low water quality
- Death of fish



Common fish disease symptoms: Behavioural signs:

- Feeding decreases
- Swimming: weak, lazy, erratic
- Roughing against hard object
- Infected fish isolating themselves
- Gaping mouth and swimming backwards
- Floating in water head up
- Crowding/gathering in water inflow
- Fish “jumpy” when person arrives at pond

Physical signs

- Body: open (often red) sores, lesions, bloody areas, loss of scales, bloated swollen belly
- Gills: pale, eroded, swollen, bloody or brownish
- Fins: folded, eroded
- Eyes: cloudy, distended or bulging
- Presence of disease organisms on skin, gills, fins



Fish diseases can be caused by either:

- Bacteria – which causes diseases like fin rot and tail rot
- Fungus – woolly or cottony patches (often off white or grey in colour) on the surface of fish, and gill rot causing asphyxia.
- Parasites
- Ectoparasites - causing Black spot, white spot or the ICH commonly known as the fish louse, and Nematodes
- Endoparasites – like the Contraceacum, and the Ligula intestinalis
- Diet – High carbohydrate levels in feeds, or lack of protein and lipids resulting in liver tumour.

Preventative Measures.

We are reminded that prevention is better than cure. Hence we should aim at keeping the fish environment ie primarily the water quality as friendly as it should be and that would prevent a wide range of diseases.

- Ensure good water quality. Free of pollution and adequate dissolved oxygen, well aerated
- Keep the environment healthy. Control silt & plants, maintain a good balance of plankton in the ponds
- Keep fish in good condition. Control stocking densities, good food supply, avoid stressing them. If netting, handling or grading the fish do this carefully, use wet hands to handle the fish, don't throw them from heights, don't overcrowd them in the net or in a holding bucket or other vessel.
- If water temperatures are much higher than normal don't net or handle the fish.
- If the fish look stressed early in the morning - i.e. they are jumpy and gaping, don't feed or feed very lightly.
- Prevent the entry of disease organisms from outside your farm. Prevent the spread of disease organisms within your farm. Use filters and screens, disinfect equipment and fish from outside the farm
- Fish diseases often enter fish farms when infected fingerlings are brought in from other sources. Make sure the farm/hatchery you are buying from has healthy fish
- Avoid excessive organic matter in fishpond for example too much manure and uneaten feed.
- Ensure right types of feeds are fed to your fish. Store fish feeds in a cool dry place away from moisture.

If you begin to lose increasing number of fish each day and you obtain outside conformation from an expert that your fish are infected with a serious disease, drain the pond immediately and cull infected fish.

- Dry the pond under the sun for about seven days
- Dampen the pond bottom with about 15 cm of water
- Spread Lime evenly over the surface of pond bottom at the rate of 45kg in a 300m²
- Wait for 15 days then restock the pond with healthy stocks.