

Fishnote

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DISEASES OF BARRAMUNDI BROODSTOCK

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PREVENTION

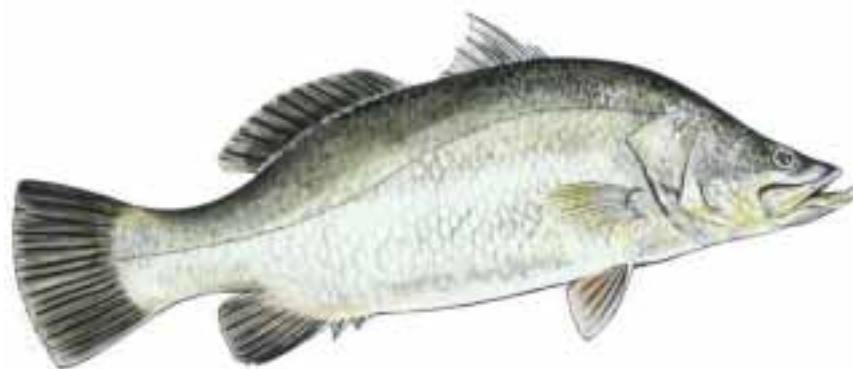
Disease control for broodstock should follow the maxim that prevention is better than cure.

The two main ways through which disease can be introduced into fish tanks are by adding infected water or feed.

Water Quality

The easiest way to prevent disease in brood fish is to ensure that the environment in which the fish are kept is as clean as possible. Some important measures that can be taken are:

1. Water entering the tanks should be filtered and the exchange rate should be at least half the tank volume per day.
2. Ideally tanks should be cleaned daily and any uneaten feed removed.
3. New fish should be quarantined for five to six weeks to ensure they are not diseased.
4. Air should be bubbled through the water to maintain high levels of dissolved oxygen.



Feed Quality

Feed must be stored correctly to prevent the introduction of infectious agents. If bait fish are to be used, these should be snap frozen while fresh and stored at -18°C for at least 10 days before use. This will minimise the transmission of parasites and infectious agents. Controls is even better if the feed is frozen at -30°C and stored for at least three weeks prior to use.

Pelleted feed should also be kept cool at less than 5°C, or, if possible, frozen. In warm humid conditions, such as in the tropics, pelleted feed can quickly deteriorate. If food is transported from interstate it is important to specify that it be delivered by refrigerated transport.

BROODSTOCK DISEASES

Marine Ich (White spot)

Marine Ich disease occurs periodically if fish are kept in seawater. Ich is caused by the protozoan *Cryptocaryon irritans*. This is the main disease that affects barramundi kept in tanks for breeding. It is most likely to occur when fish are stressed and their resistance to disease is lowered.

The first clinical signs of the disease are a loss of appetite and general listlessness. As the disease progresses the eyes become opaque and white spots or small ulcers may develop on the fish's scales. Progression of the disease is rapid and if the fish is left untreated it may die within two to three days.

Microscopical examination reveals large numbers of *Cryptocaryon irritans* cells on the gills and skin of infected fish.

Treatment of Marine Ich

Treatment of the disease in barramundi is simple, inexpensive and usually results in 100% recovery. *Cryptocaryon irritans* requires high salinity water to survive. Treatment is effected by lowering the salinity from the usual level of 30-35 ppt down to 9 ppt or lower. This change in salinity can be performed rapidly and if necessary barramundi can be transferred immediately into low salinity water. Recovery should be evident from the first day of treatment and it is normal for the fish to start feeding in three to five days.

Prevention of Marine Ich

It is believed that routinely lowering the salinity of the water in the brood tanks reduces the occurrence of marine ich. This should be done at least once a month and the salinity should remain below 10 ppt, for three days.

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