

Isolation and Quarantine - Practical Considerations

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Diseases can cause the economic ruin of a business using recirculating aquaculture technology. Among the many reasons this is true are: the lack of approved chemotherapeutics, the problems associated with treating the pathogen without killing the nitrifying bacteria on the biofilter, and the fact that recirculating systems often are very stressful to the fish being grown. The high density, feeding patterns, artificial feeds, and compromised water quality can lead to catastrophic losses if a disease outbreak occurs.

For a disease outbreak to occur three factors must be present:

- fish - always present since these are the animals being produced
- stress - can be severe at worst, chronic at best
- pathogen - try to keep from introduction through quarantine and isolation

There are various methods that a pathogen can find its way into a production facility. Some of these ways include: water, air, feed, fingerlings, equipment, and humans

Some practical aspects to isolation for each of these methods of introduction include:

water

- separate water from production area
- one way flow from isolation area to waste discharge - never from isolation to production area
- gradually acclimate incoming fingerlings to facility water

air

- insure exhaust fan from production area does not feed into inlet for isolation area

feed

- purchase feed from a reputable dealer with a proven track record
- be aware of truck and delivery person interactions with the isolation area

fingerlings

- incoming fish should be isolated for 60 days
- get disease diagnosis and analysis from aquatic veterinarian

remember what a disease free fish really is - one from a batch where, in a very small sample, a specific pathogen was not diagnosed
use prophylactic treatment if recommended by the vet
buy fingerlings from a reputable dealer

equipment

keep the equipment in the isolation area separate from production area equipment
make the isolation area equipment highly visible so there is no confusion

humans

have company policy in place regarding personnel activity in and around the isolation area that is:
well thought out
well understood
well enforced
require clothing change before entering
have a foot bath at the entrance to the isolation area
minimize traffic into/out of the area
only authorized personnel permitted in the area

By following these simple suggestions the risk of introducing a disease to your facility will be greatly reduced - not removed. Remember that nothing can replace good husbandry practices. If you keep the fish happy, they will make you happy at the end of the year when you total your annual profit/loss statement.