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Fish health management: An important tool for fisheries

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DESCRIPTION

Fish health management may be a term employed in aquaculture to explain management practices which are designed to forestall fish disease. Once fish get sick it is often difficult to salvage them. A wide style of pathogens (e.g. viruses, bacteria, parasites, fungi) can and do infect fish. Most disease-causing agents are naturally present in lownumbers and normally don't cause problems. The natural defense mechanisms of fish (i.e. undamaged skin, mucus covering the skin, and various components of the immune system) keep disease-causing agents in restraint. However, when fish already crowded in culture operations are further stressed (e.g., by low dissolved oxygen, nutritionally inadequate feeds, excessive handling) their natural disease defense systems could also be weakened and their ability to safeguard against infectious diseases is also reduced. Disease induced catastrophic mortalities are frequently the results of, and response to, a stressful experience. Most disease problems are often avoided with proper management. Although numerous chemotherapeutics are available worldwide foraquaculture, formalin continues to be considered the foremost common drug to treatexternal and gill parasitic infestation. Formalin is chosen not just for itsefficiency, but also for its availability and low price. Mixed with “MalachiteGreen Oxalate” (MGO), its wide effectiveness seems to be reinforced.Regular preventive treatments with formalin are recommended. Noresistance was developed by the pathogen for this drug. There’s an increasing trend towards intensification of aquaculture production especially through the employment of recirculating aquaculture systems (RAS). the benefits of RAS include compactness (small footprint), biosecurity, high density production and their ability to manage the environment during which the animals are reared. RAS are generally more environmentally friendly than other forms of aquaculture systems due primarily to their reduced water usage and waste discharge.

By their nature, RAS also offer a degree of biosecurity from the external environment, which, if properly managed, can reduce risk of disease outbreak available. Not surprising, RAS are attracting immense interest in Australia and also the number of systems operational continues to grow substantially together with the range of species being cultured using this technology. With intensification and increased stocking densities of fish, transmission of infectious diseases, after they occur, is usually more rapid and devastating in terms of mortalities. Consequently, reducing the incidence and severity of diseases in intensive systems is critical to maintaining production performance. Daily observation of fish behavior and feeding activity allows early detection of after they do occur so a diagnosis may be made before the bulk of the population becomes sick. If treatment is indicated, it'll be most successful if it's implemented early within the course of the disease while the fish are still in good condition. Fish disease could be a substantial source of monetary loss to aqua culturists. Production costs are increased by fish disease outbreaks due to the investment lost in dead fish, cost of treatment, and decreased growth during convalescence. In nature we are less attentive to fish disease problems because sick animals are quickly off from the population by predators. Additionally, fish are much less crowded in natural systems than in captivity. Parasites and bacteria is also of minimal significance under natural conditions, but can cause substantial problems when animals are crowded and stressed under culture conditions.