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PERACETIC ACID – A GREENER SOLUTION FOR DISINFECTING AQUACULTURE SYSTEMS

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Peracetic acid (PAA) has recently been introduced as a green disinfectant for biosecurity in the US aquaculture industry to prevent disease outbreaks from fish pathogens. It is increasingly being used to replace chlorine in many industries. PAA is approved for use in Denmark, Germany and Norway as a water disinfectant in aquaculture. Our international collaborations have studied its applications to aquaculture including its effectiveness to pathogens such as *Ichthypphilius multifiliis*, *Saprolegnia* spp., and various bacteria, as well as its degradation in water, toxicity to fish, and effect on fish stress. Our research studies will be reviewed.
PAA is a stabilized mixture of acetic acid, hydrogen peroxide and water that breaks down quickly to water and a small amount of dilute acetic acid (i.e., vinegar). The U.S. Environmental Protection Agency (EPA) first registered PAA as an antimicrobial in 1985 for indoor use on hard surfaces (e.g., hospitals). Registrations have been expanded to include: sanitation in food/beverage facilities, agricultural premises, wineries/breweries, greenhouse equipment, animal housing, meat and poultry processing, commercial laundries, prevention of bio-film formation in pulp/paper industries, and as a disinfectant for wastewater treatment.