



water

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Water Quality of Recirculating Aquaculture Systems

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Message from the Guest Editor

Recirculating aquaculture systems (RAS) are increasingly used for commercial fish production. Good water quality is crucial for successful production since it affects the fish growth and health.

One challenge in RAS is the tendency toward the formation of off-flavor-inducing compounds which easily accumulate in fish flesh. This is connected with the source of inlet water and the rate of water reuse. There can be unwanted compounds even in the inlet water, and in the case of surface water, the quality can vary due based on the time of year.

Effective particle removal is highly important in RAS. Solid particles increase oxygen consumption, nutrient input, and can serve as a place of growth for biofilms and microbes that produce off-flavors. Additionally, they can harbor pathogens and damage gills, creating unwanted effects on fish health. Furthermore, biofilters transform toxic nitrogen species into less toxic forms but can also act as hotspots for microbes that potentially produce off-flavor compounds.

This issue aims to collect the most recent findings and technical solutions for improving the overall water quality in RAS.



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Special issue



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Message from the Editor-in-Chief

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