

Aquaculture pond water odor

INTRODUCTION

Aquaculture is defined as “the cultivation of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants in natural or artificial environment” . It is one of the fastest growing branch of the food production industry worldwide. .

Aquaculture has a strong impact on the environment, particularly on the aquatic ecosystems which undergo accelerated eutrophication .

Additionally, a lot of greenhouse gases are produced in the process .



You may have a beautiful pond but if it smells, that reduces the appeal greatly. That smell could be a warning that your pond has issues that can harm wildlife living in or near your pond water.

Nearly all ponds, particularly older ponds, have build-up of sludge and muck. Sludge and muck are the organic sediment located at the bottom of the pond and issues occur when it accumulates. The pond may have plenty of oxygen in the water near the top of the column, but in the sludge at the bottom of the pond, there is very little oxygen (anaerobic). Bad odor is formed at the bottom of the pond, in the no-oxygen zone where hydrogen sulfide gas (H_2S) is created and causes the “rotten egg” smell. Not only does bad sludge build up cause bad odors, but these bad “anaerobic bacteria” also are disease-causing and harmful to fish and animals. The more sludge, the more odor

Solution

valens Company is a pioneer in the field of treating **Aquaculture pond water odor**. In implementing its solutions, it relies on advanced, promising, fast, and well-established technology. It does not limit itself to mask odor but it completely eliminates it from its source. It builds in its solutions on emphasizing data, the human mind, the modernity of the machine, and alternatives to materials, and through the integration of processes, magnificent results and brilliant outputs are achieved.

Water Quality Tolerance by Species

Species	Temp °F	Dissolved Oxygen mg/L	pH	Alkalinity mg/L	Ammonia %	Nitrite mg/L
Baitfish	60-75	4-10	6-8	50-250	0-0.03	0-0.6
Catfish/Carp	65-80	3-10	6-8	50-250	0-0.03	0-0.6
Hybrid Striped Bass	70-85	4-10	6-8	50-250	0-0.03	0-0.6
Perch/Walleye	50-65	5-10	6-8	50-250	0-0.03	0-0.6
Salmon/Trout	45-68	5-12	6-8	50-250	0-0.03	0-0.6
Tilapia	75-94	3-10	6-8	50-250	0-0.03	0-0.6
Tropical Ornamentals	68-84	4-10	6-8	50-250	0-0.03	0-0.5

Important data before treatment

- The volume of water in the hatchery, raceway, grow out pond
- The amount of organic matter on the bottom of the pond
- The density (number) of fish or shrimp in the pond – the higher the animal density the more organic waste load
- Dissolved oxygen of pond water
- PH of water
- Nitrogen
- Hydrogen-sulfide
- Ammonia
- Depth of pond.
- Transparency of water
- Ammonia, Nitrites and Nitrates

Benefits

- Reduces odor
- Stimulates microbial activity in the soil or on the pond liner
- Enhances breakdown of toxic substances (hydrogen sulfide and ammonia) in the pond soil or biofilms attached to pond liner
- Increases nutrient availability and establishes water maturation and development processes
- Improves DO (dissolved oxygen) levels upon refilling
- Reduces anoxic and anaerobic soil conditions
- Reduces pathogenic bacteria load in next crop
- Improves crop yields

Contact

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