

# In aquaculture, water is not added as you want!

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In the process of pond aquaculture, the stress response caused by improper water addition will affect the growth of pond fish and shrimp, and the severe ones will cause disease or even major losses. Therefore, the addition of water in the pond culture process should be one of the key links to attract farmers' attention. In order to achieve the desired effect, pay attention to the following points in the process of adding water.



## Add water quality requirements

It is best to meet the requirements of fishery water quality standards. But at least meet the following requirements

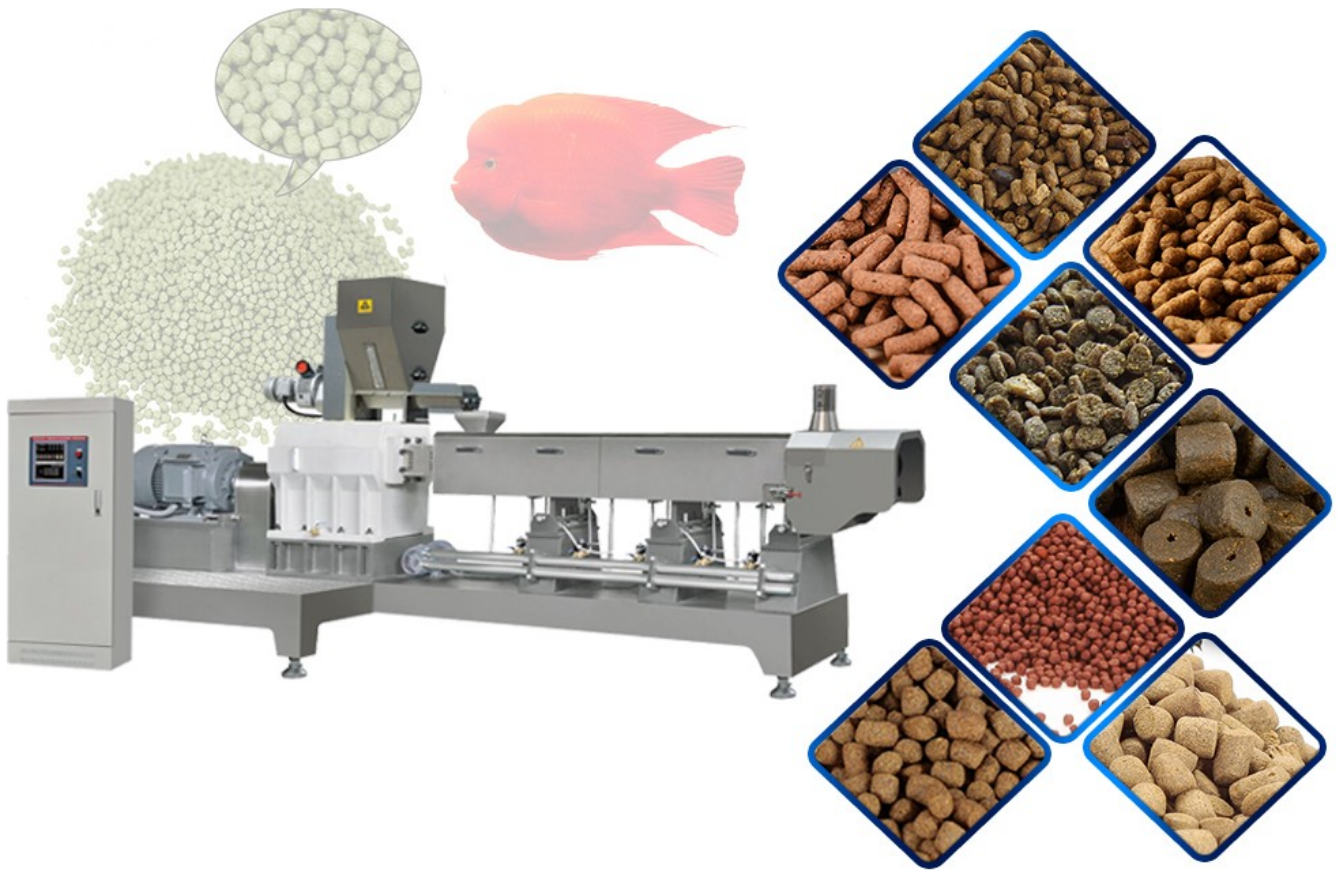
1. No industrial pollution of the water source. Some outer ponds are seriously polluted by industrial discharges, and small fishes often die in the water bodies. This kind of water must never be added to the pond. It is best to check the water in the external pond before adding water, and add it to the pond after removing industrial pollution. If there is no test condition, you can add water to the test pond and observe before making a decision.
2. The basic indicators of water sources meet the minimum requirements. Before adding water, we require the water source to be tested for basic indicators such as temperature, pH, dissolved oxygen, ammonia nitrogen, and nitrite. In practice, we suggest that the temperature difference of the added water should not exceed 3<sup>o</sup>, the PH value should be between 7-8.5, the dissolved oxygen should not be less than 3 mg/L, the non-ionic ammonia should not exceed 0.3 mg/L, and the nitrite should not exceed 0.2 mg/L. Some outdoor ponds for breeding are full of peanuts, water hyacinths, duckweeds, etc., and the water in the outer ponds is not very fluid. Most of the water in such outer ponds is hypoxic water and cannot be directly added to the

pond. High can cause poisoning or cause disease. Therefore, it is better to add the water from the outer pond to a temporary pond first, after disinfection, aeration and oxygen increase, or temporarily store it for one week before adding it to the pond.



### **Add water time**

Grasp the time to add water. Water addition should be flexibly controlled according to weather changes, temperature levels, and water quality. For common fish farming, water is usually added to the pond every 7 days or so. If the weather is very hot, the temperature is high, the water quality is too fat, or it is rainy or sultry, the interval of adding water should be shortened. Especially during periods of high temperature, it is best to add water early in the morning. Because the photosynthesis of phytoplankton in the pool stops at night, the respiration of various organisms in the water body still needs to consume oxygen, which will drop to the lowest value at 3-5 in the morning. Therefore, if you choose to inject new water into the fish pond in the early morning, the oxygen increase effect is obvious. It is generally not suitable to add water to fish ponds during the day, especially at noon and evening in the sultry weather during the high temperature period, otherwise it may cause hypoxia and even flood the pond and cause losses.



## Add water method

1. When pumping When pumping water, the upper layer of the water source should be extracted. Generally, the pumping pipe is inserted about 30-50 cm below the surface of the water. Such shallow water has low organic matter content, high dissolved oxygen content, and the water temperature is similar to the pool water temperature. After being injected into the pond, it will be beneficial to the growth and development of fish.
2. Before adding water If the water quality of the original pond is extremely poor before adding water, drain the original pond water at the bottom of the pond, and then inject new water, and filter the water inlet with a dense mesh to prevent wild fish and predators from entering the pond.
3. When adding water When adding water, it is best to flush the injected new water along the upper horizontal line of the pool water, so as to promote the agitation of the upper water and increase oxygen. It is most forbidden to let water fall from a high place to prevent the sediment and humus at the bottom of the pool from polluting the water.
4. Add water The amount of water added should be flexibly controlled. Adding too little water can not achieve the purpose of adding water, and adding too much water will easily reduce the density of plankton in the water, thereby affecting the feeding and growth of fish and shrimp. Generally, the depth of each addition of water is 10-30 cm. In short, it is better to add a small amount of water several times. Especially during the high temperature period, do not add too

much water at a time, otherwise it will easily cause stress to affect growth and even cause disease.

