**Ways To Keep The Nitrate Level On Track In The Fish Tank**

Nitrates being a byproduct of ammonia isn't as lethal as ammonia, but somehow it manages to be proved as hazardous if didn't get under control. Anything and everything in this entire universe needs to be controlled; same is with ammonia and **nitrate in a fish tank**.

Overfeeding and overcrowding of fishes are harmful in their respective manners; if there is stuffing it they will ultimately lead to storage of more faecal matter, then ammonia and nitrate, almost the same is the dilemma with overcrowding the fish tank with fishes, it isn't good either. This will also harm the **nitrate level in a fish tank.**

## **How To Reduce The Level Of Nitrate In Fish Tank**

Not just having a fish tank is excellent; one has to maintain and take care of it. It is crucial to know what are the safety measures or emergency treatment to **lowering nitrate level in fish tank.**

### **Water tank cleaning**

Water should be poured out and in simultaneously to keep your fish tank healthy and free from nitrate. Be it any 20% strategy or the one where you pour away 40% of the water out of the fish tank. Choose any, but try to maintain a healthy balance of continuous change of water in the fish tank every two weeks, it will not let the nitrates quantity to increase in the fish tank.

### **Filters should be clean**

This is very important to keep in your senses that the filter needs to be replaced or just very cleaned up if they are attached and embedded into a place where. Fish have a place to live. Removal and addition of water and keeping it clean through other means is essential, and so is the importance of keeping up with the filters. Hygiene is crucial, doesn't matter who the living being is, if we have them for any purpose, then it is undoubtedly our duty to take care of them.

### **Installation of plants inside the water tank**

Plants consume nitrates, so why not. As they are also good for the environment around the fish. Since after getting inside a fish tank it restricts the area for fish, they are just bound to some area, therefore, adding some plants inside the fish tank won’t harm them anyway. They also release nitrate yet it isn’t as harmful and also is in that much amount which won’t prove to be lethal.

### **Overfeeding**

Letting the fish overeat isn't right in itself. Therefore, food given to the fish inside the tank should be in an adequate amount, not too less or too much, feed your fish sparingly. Not only the lesser dose of food can kill the fish, but also they can be killed by just overdoing it. The more waste is released, the more ammonia is produced, the more ammonia, more is the amount of nitrate. Also, overstocking is terrible for the fish, there will be less area for them to roam around since they are restricted to the fish tank, and if the area is too crowded, one prefers to live there.

**Nitrates in the fish tank** should be in an exact amount, as they are produced by the waste product. Therefore, it is an undeniable fact that nitrates should be less than 50 ppm, preferably in between 25 ppm to 5 ppm. It is crucial to keep a track on this, so the person who owns a fish tank should get a routine checkup of nitrates. It can be weekly or monthly, accomplish them, think like you have to do so.

Exposure of fish to **high nitrate levels** can ultimately lead to the death of fish in the fish tank. Nitrification is the oxidation of ammonia into a substance called nitrite by bacteria called Nitrosomonas; further, the nitrites are oxidized in the form of nitrate by bacteria called Nitrobacter, which somehow is less hazardous than ammonia and also than nitrite. Although ammonia and nitrite are very much dangerous to the fish inside the fish tank, meanwhile nitrate also gets hazardous to some extent but only when they are in constant contact with them.

Fish faecal matter

↓

Ammonia

↓Nitrosomonas

Nitrite

↓Nitrobacter

Nitrate

Irregular filtration or irregular cleaning and water changing inside the fish tank will lead to this problem. Regularly cleaning of water and the filters will eventually stop the increment of such types of harmful compounds inside the fish tank. Live plants like algae are very much efficient in decreasing the level of nitrate in freshwater; they are a good consumer of nitrate and can help the owner to maintain the **nitrate level in the fish tank**. In freshwater, the level of nitrate is less toxic even if it is around 200 ppm, at the same time it can be very damaging to the fish present in a saltwater tank.

Not just fish in the fish tank but also the fish of freshwater seem to be healthy when there is a lot of greenery surrounding them, the level of nitrate is decreased by the plants as they are right consumers of nitrate. Ammonia and nitrite are not good for the plant as well, but when it comes to nitrate, they are very much in use. The owner of a fish tank can reduce the problem of growing nitrate by just trying to install plants inside the fish tanks.

Also, when you go for the instant water reduction method during the chaos of increasing nitrate, then it can work wonders. Believe us the water changing method is best of all, what if you went somewhere for almost 1 or 2 months and you were unable to look after the fish inside your tank.

They all will either die or get that high level of "nitrate poisoning" due to their constant exposure to the wastes inside the tank such as organic matter, toxic materials and other harmful substances. There is an instant treatment for this problem, and this is known as instantaneous water reduction method, almost removal of water from the tank and then adding new gallon of water into it will help the nitrate level to go from a hazardous level to a direct five ppm, which is perfectly fine for the fish inside the fish tank.

It is observed that after applying this method, it can help you save your fish from dying and you can observe that they regain their appetite, they start to eat correctly, move and swim with constant rate instead of lying at the bottom of the water tank, they become more active. They look more beautiful and colourful as compared to when they were exposed. This can be observed just after some days.

## **Nitrate Reduction Rate Method**

Now what do you understand by nitrate reduction method, this also is an instance method same as water reduction method which helps you to save your fish from dying out of "pH shock", yes when the level of nitrate is out of that threshold level then it is essential to treat it well. You can either increase the level of pH or decrease it. As when the level of nitrate is increased, we will go for instant water reduction method which can somehow lead to decrease of pH instantly as well, therefore, it is crucial to balance the level of pH and not let it gets so low that it ultimately leads to killing of fishes out of "pH shock". pH can either increase or decrease; both are harmful and can be responsible for the death of the fishes inside the fish tank.

### **Nitrate Poisoning**

Nitrate poisoning, this is something which is not occurred due to constant increase of nitrate inside the fish tank. Although, "nitrate shock" happens when there is either very much increment of nitrate in the fish tank or a complete decrement of nitrate inside the fish tank, both of the situation come under such circumstances when the fish dies out of shock and not overdose, that shock is termed as "nitrate shock". On the other hand when the level of nitrate is very much increased, and this is raised to a level of about 100 ppm. If the fish are exposed to this particular **level of nitrate,** then it can cause the death of fish inside the fish tank due to its poisoning, termed as nitrate poisoning.

The effect of nitrate on fish is something one should observe and be aware of. As people often consider the level of rising ammonia as hazardous and do not consider the level of nitrate, this is appalling. Even the decrement or increment of nitrate can lead to the death of every fish inside the tank.

An acceptable level of ammonia ranges between 5 ppm to 40 ppm. The level of nitrate when it reaches up to the level of 100 ppm then it can be hazardous as it ultimately leads to the death of fish. When the level of nitrate reaches 70 ppm or above, then they are vulnerable and prone to death. The level of 20 ppm to 50 ppm is fine but should be taken care of; therefore, the range of below 20 ppm or ten ppm is considered to be the best amongst all.

There is no harm when the level of nitrate inside the fish tank is almost five ppm to 20 ppm, but when it starts increasing, then there should be the constant treatment of the nitrate level. Use water reduction method, the instant one only when the level is you to 80 ppm to 100 ppm, the rest of the level which are below 80 ppm can be taken care of every other day instead of removing the entire water outside the fish tank.

Allowance of too much fish can lead to sheer growth of fish and a further increase of the wastes which are somehow toxic to them in such a packed environment. For instance, let us take an example of a human being, a person who is busy with his daily work, and there is too much pollution around him, what will it lead to? Either he will fall ill and be less productive, or he will die, same is the situation with every other living creature, and doesn't matter if they are a human, animals or plants. Toxicity ultimately leads to destruction.

If you want to add more fish, then you can have a larger fish tank instead. Get one larger one if you are very much indulged in having fishes all around. Or you can install another fish tank which can be either small or large, use according to the need. Resist the overexploitation of a tank; you can either buy a new tank if you want, or we would suggest not to gather too much fish at a single place. Keep their food in good form; do not feed them expired food or overdose them. The frequency of food is fundamental. Never try to feed them too much; this can also **increase the nitrate level in a fish tank**.

Do you have any idea what Algone is? Algone is a nitrate removing element; it gently removes nitrates from the fish tank and helps in maintaining the good health of the fish in the fish tank. Algone also clears the hazy water inside the fish tank, which makes it look clear and clean since the increase of wastes inside the fish tank also leads to dirty water. The look and quality of water are degraded in the rise of nitrate inside the water tank, but when you add Algone inside the fish tank, it will give neat water, and it will look clean. It also removes pollutants which are somehow unhealthy for the environment of fish and can harm them anytime soon. The dissolved organic matter which decomposes into ammonia and then nitrite and further into nitrate can also be removed. Therefore, an owner of the fish tank should consider having Algone for keeping their fish tank clean and healthy, which is very important for the survival of fish.

## **Conclusion**

The sources which lead to an ultimate increase of **nitrate in the fish tank** include the uneaten fish food, their faecal matter, the decayed plants inside the fish tank and dirty filters. Thus, it is very important to keep pace with everything, the regular change of water, the replacement of filters, or just cleaning the filters, depending upon the requirement.

The increase of nitrate inside the fish tank can lead to poor reproduction, drowsiness and continuous gill movement which can be observed as their respiratory organs start moving rapidly, the loss of appetite, poor growth (which means they do not acquire their full size which is usually acquired by other similar fishes), the colour of fishes inside the fish tank starts to fade, they no longer look that much colourful, vibrant and attractive, their reduced life span.

The level of nitrates should be kept in mind, like for freshwater fish tank it should be <40 ppm; saltwater fish tank should be <1 ppm when talking about reef tanks and similarly it should be around 0.25 ppm for coral fish tanks. So this is important to observe and check the level of nitrate inside the tank.

***Stay healthy and keep your wishes healthy.***