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WHAT IS NITRIDAC?

NITRIDAC is bacterial culture in a highly concentrated solution (40 million bacteria/ml). These bacteria are added to the aquarium to break down organic matter and transform ammonia. This product can be used in new or existing fresh or saltwater aquariums. The biological action of these bacteria transform highly toxic ammonia into nitrite first and then into nitrate. In brief, *NITRIDAC* quickly breaks down organic compounds, reduces sediment or mud build-up, restores walls and beds, prevents algae from forming, and increases nitrite.

NITRIDAC contains the following group of bacteria:

4 groups of Bacillus Heterotrophic

4 groups of Autotrophic Nitrifying Bacteria (Nitrosomonas and Nitrobacter), which oxidise ammonia into nitrites first and then into nitrates

1 group of Paenibacillus polymyxa, which fixes nitrate nitrogen, acting as a fertiliser to feed plants

A healthy aquarium is the result of a good biological activity, essential for cleaning the water through the natural decomposition of waste. Conversely, waste build-up is the sign of an “unbalanced” aquarium and can cause unhealthy conditions that may even lead to the fish’s death.

The bacteria needed to eliminate this waste are not present in artificial environments, such as aquariums and ponds, and thus cannot ensure a proper biological activity. That’s why using *NITRIDAC* is so important.

Using *NITRIDAC* regularly maintains correct biological activity because it makes sure that the number of bacteria needed is always sufficient. Regularly adding the right bacteria to water improves its quality significantly.



OVERVIEW

This test compares the speed with which the bacteria’s “biological filter” sets up in aquariums treated with *NITRIDAC*. The test was conducted on three new aquariums that showed high NO₂ and NH₃/NH₄ values.

Aquarium no. 1, containing 70 l of freshwater, was installed on 11 May 2021. The *NITRIDAC* treatment started 6 days after installation, as per instructions. This is because we wanted NO₂ to form completely to prove how *NITRIDAC* can generate helpful bacteria. The bed’s substrate was made with *FONDO VIVO* and the following plants: *lagenandra meeboldii* red and *echinodorus bleheri*. The biological filter included *FILTERWATTE* + *COARSE-GRAINED SPONGE* + *AQUACIL*, whereas the pump used was *MAGIC PUMP 550*.

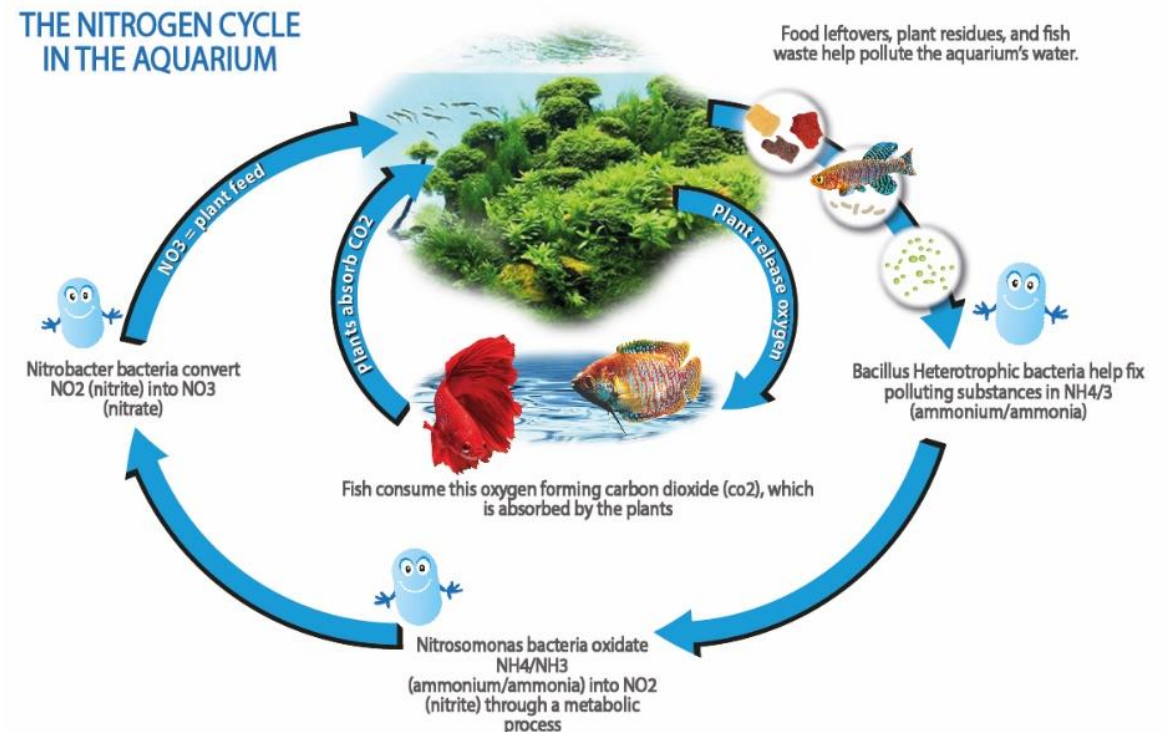
Aquarium no. 2, containing 70 l of freshwater, was installed on 11 May 2021. The treatment with a competitor's product started 6 days after installation. This is because we wanted NO_2 to form completely. The bed's substrate was made with *FINE WHITE SAND* and the following plants: *echinodorus ozelot red* and *alternanthera cardinalis*. The biological filter included *FILTERWATTE* + *FINE-GRAINED SPONGE* + *AQUACIL*, whereas the pump used was *MAGIC PUMP 550*.

Aquarium no. 3, containing 50 l of freshwater, was installed on 22 April 2021. The *NITRIDAC* treatment started 6 days after installation, as per instructions. This is because we wanted NO_2 to form completely to prove how *NITRIDAC* can generate helpful bacteria. The substrate included: *FONDOVIVO* + A *FERTIL PLANT MIX* + *HUMUS* + *GREEN ALPS QUARTZ* and the following plants: *alternanthera cardinalis*, *echinodorus amazonicus*, *lagenandra meeboldii red*, *Anubias barteri*. The biological filter included *FILTERWATTE* + *COARSE- AND FINE-GRAINED SPONGE* + *AQUACIL*, whereas the pump used was *MAGIC PUMP 350*.

This test showed how *NITRIDAC* helps transform ammonia into nitrite first and then into nitrate, thanks to the introduction of *Nitrosomonas* and *Nitrobacter*.

HOW DOES IT WORK?

A fish's organic waste is essentially made of ammonia. First, *Nitrosomonas* bacteria transform ammonia into nitrite (NO_2) through an oxidation-reduction process. Then *Nitrobacter* converts nitrite into nitrate (NO_3), again through an oxidation-reduction process. Finally, the plants absorb nitrate, and the process starts all over again.

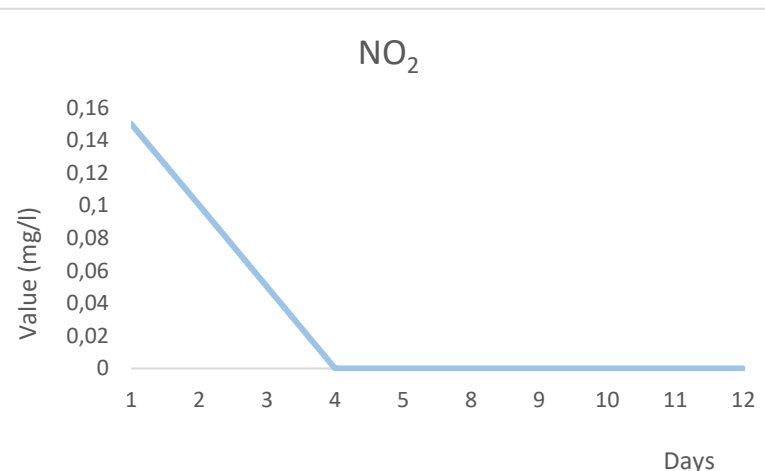


RESULTS

Aquarium 1:

Given the high nitrite value detected after conducting *PRODACTEST NO₂*, we administrated *NITRIDAC* (7 ml in 70 l) once a day for 12 days.

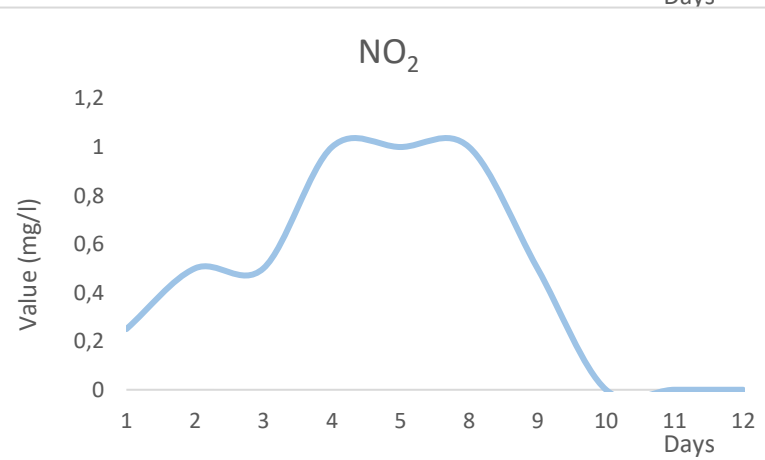
After checking the nitrite values with *PRODACT TEST NO₂*, we created a chart to show how *NITRIDAC* increases helpful bacteria for transforming nitrite, which is highly toxic for fish.



Aquarium 2:

Given the high nitrite value detected after conducting *PRODACTEST NO₂*, we administrated a competitor's product (7 ml in 70 l) once a day for 12 days.

After checking the nitrite values through *PRODACT TEST NO₂*, we created a chart to show the difference between *NITRIDAC* and the competitor's product.



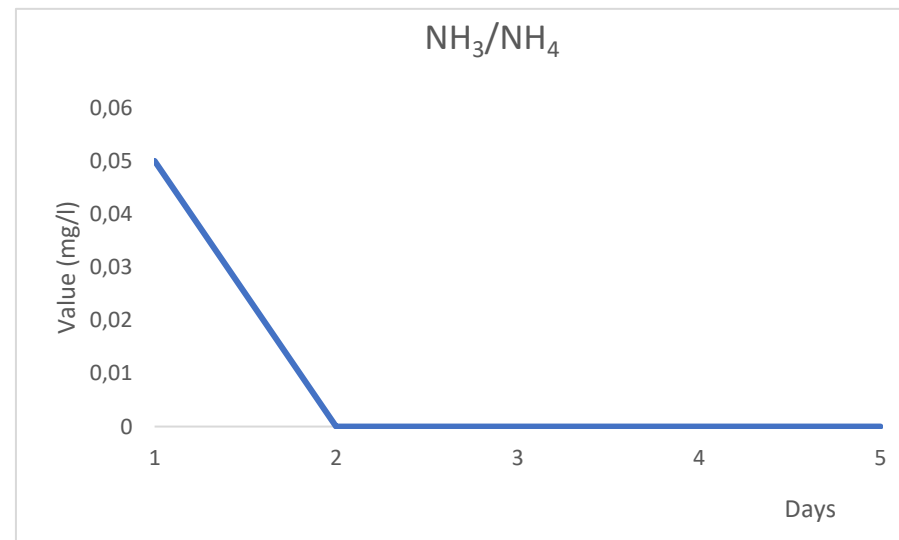
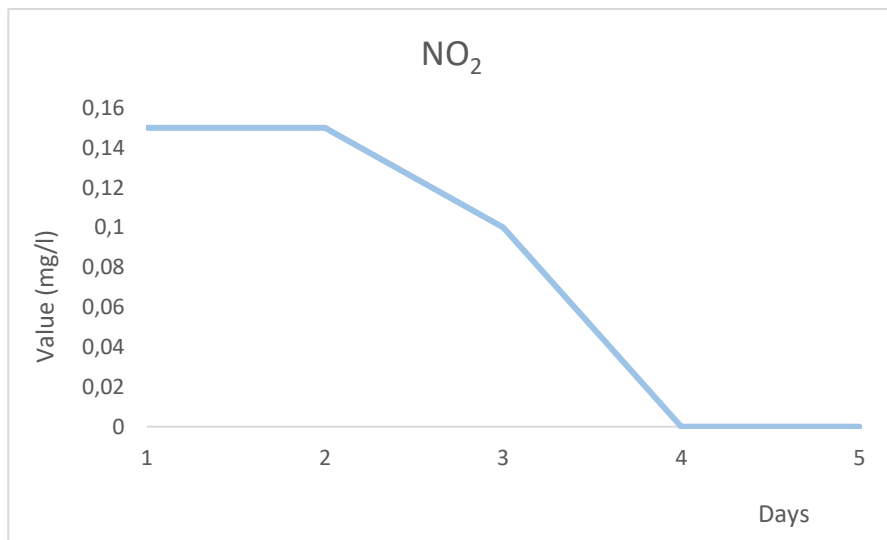


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Aquarium 3:

Given the high nitrite value detected after conducting *PRODACTEST NO₂*, and the high ammonia content detected through *PRODAC TEST NH₃/NH₄*, we administrated *NITRIDAC* (5 ml in 50 l) once a day for 5 days.

After checking the nitrite values through *PRODACT TEST NO₂*, and ammonia values through *PRODAC TEST NH₃/NH₄*, we created a chart to show how *NITRIDAC* increases helpful bacteria for transforming ammonia into nitrite first and then into nitrate the plants can absorb.



DISCUSSION

NITRIDAC has promoted the development of the bacterial filter and reduced fish exposure to ammonia and nitrite (both highly toxic for fish) in just a few days.

NITRIDAC instantly starts the bacteria-development process and helps maintain the biological filter active.