Nitrate (NO_3) Test Kit

Testing for Nitrate

Nitrate is considered relatively harmless to pond fish. It is at the end of the nitrogen cycle after the bacteria known as *Nitrobacter* has converted the toxic Nitrite (NO_2) to this soluble substance called Nitrate. The consequence of Nitrate being at end of the nitrification process is that Nitrate tends to accumulate over time in the enclosed freshwater pond / tank environment. And should be monitored.

Problems caused by Nitrate

There is growing evidence that high levels of Nitrate of 75 to 100 mg/l or more, can impair the ability of fish to generate new skin tissues and act as a low level stressor which will lower immune response. Like Nitrite, Nitrates can affect the uptake of oxygen and reduce growth rate potential. Nitrate is well known as a nutrient for algae and blanket weed growth in ponds, levels of 25 mg/l is enough to stimulate plant and algae / blanket weed growth.

Reducing Nitrate levels

If possible try and keep nitrate below 50 mg/l. There are many varied methods for aiding the reduction of nitrates in pond, heavily planted areas or trickle filters will help reduce the level of Nitrates. If very high levels are recorded, small but very regular Water changing can help, but first check the level from the tap! as this reading can also be every high particularly in rural areas, if tap water is high, special resin cartridges are available for water purifiers and should be used. Nitrates can be reduced by adding denitrifying beneficial bacteria. Regularly adding Kusuri Eco-Pure or Kusuri Klear, products lower blanket weed by adding special denitrifying bacteria that reduce nitrate levels.

Note :All the above methods can take time! But as Nitrate is reasonably harmless gradual reduction is acceptable. If blanket weed is causing problems and Nitrate level is acceptable (below 25 mg/l) then high Phosphates from fish waste / tap water can be the potential problem. For further advice call Kusuri Products on 01626 836600

How to use this Nitrate test Kit

1. Rinse & clean test tube with pond water.
2. Fill test tube with 10 ml of pond water using the syringe supplied.
3. Add one No 1 Nitrate tablet replace cap and shake for about 30 seconds or until tablet has dissolved.
4. Add one No 2 Nitrate tablet replace cap and shake for one minute.
5. Allow to stand for 5 minutes without disturbing test tube while colour develops.
6. Determine the reading by matching the colour of reacted sample with the colour card supplied. For best results put test tube behind the clear centre section of the colour test card and offer up to natural daylight.
   TIP: A plain white background, similar to this instruction sheet offered behind the test tube & colour strip may help enhance the colour match reading.

YOUR TEST RESULTS

(Colours on this paper chart are not colour matched and are for guidance only)