

Microchalk™

**— for the reduction of organic mud
and reversal of stagnation**



In nature, after lakes and ponds are first formed, they follow a process of succession of habitat. Ultimately, the lake becomes filled-in with silt, trees become established and it becomes land .

Thus, in many lakes and fisheries deposition of organic matter in the mud is greater than the pace of decomposition. As a consequence, the mud becomes progressively deeper and the water shallower, allowing marginal plants to 'walk' into the lake. This reduces the amenity value of the pool.

Adverse consequences include:

- X Year-on-year accumulation of mud, due to insufficient recycling by microbes, results in steadily increasing demand for oxygen. Decomposition in the absence of oxygen (evident as black, 'mousse-like' mud smelling of rotten eggs) leads to the production of toxic substances, including hydrogen sulphide. It has been proved in aquaculture that this significantly reduces appetite in fish, and they will go off the feed. *This can stress the fish (reducing their resistance to disease), reduce anglers catches, and fishery revenue.*
- X Black, acid, anoxic mud can be a 'time bomb'; in hot weather, the water can 'turn over', mixing the mud with water and absorbing all of the oxygen. This can kill all of the fish and other aquatic animals.
- X Increasing accumulation of organic matter on the lake bed can kill off the friendly recycling microbes, and poison the area, making it a 'no-go' area for fish.
- X Deep accumulations of mud can reduce the space available for fishing

Microchalk is one of the *Pond Healer Remedies* that can reverse this process. It is a very high quality product, and is virtually pure calcium carbonate ground extremely finely. *It is not ordinary ground chalk.* The average particle size is 2.8 microns / less than 3 thousandths of 1 mm ! Consequently, it has a vast surface area, allowing it to dissolve more easily, and work more efficiently. Other, inferior products leave lumps and white residues.

Microchalk is alkaline, and works by neutralising the acids in the mud, and providing a favourable environment for decomposing bacteria. Air entrained in the porous particles, delivers oxygen to the mud enabling aerobic bacteria to decompose organic matter.

It is best applied between early winter and spring. It is mixed with the water and spread over the whole lake. We offer an application service, if required.

Application of such products can yield spectacular results. For example, *organic mud has reduced in depth by 1metre over a 10 year period in one test lake.*

Fish and other aquatic animals produce toxic ammonia as a waste product. They depend on this to be recycled through to nitrate ('nitrification') for their well being and the balance of the ecosystem. The natural process of the nitrogen recycling by bacteria needs a ready supply of carbonate, and **Microchalk** provides this in abundance. Where carbonate has been previously exhausted, **Microchalk** 'kick-starts' nitrification back into action.

Microchalk can also improve clarity, by a process of *flocculation*, where suspended solids clump together and settle out.

* For 'turbo-charged' sludge reduction, consider another Pond Healer Remedy—**Sludge Digester** - *please ask for details.*

Contact us for more details



See over for
testimonials

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Microchalk complements the wider range of water quality management tools from *Spirex Aquatec* that help to maintain the balance in lakes and commercial fisheries, *keeping the fish, anglers and Manager happy!*

Our approach to pond and lake management is to consider and treat the symptoms of the problems. However, we also like *to consider and treat the causes*, and aim to create an ecological balance, if possible. If you are uncertain about the water quality problems in your lake, we offer a **site visit service**. We inspect, assess, take and analyse samples and produce a report. This includes a suggested programme of management and remedies. *Please ask for details.*

Testimonials

Every customer who has used *Microchalk* has been delighted with the results. Here are a few examples (each one received no payment for their testimonial !):

Mark Simmons, Heather Fisheries (fish farmer): "We have a pond which had horrible rancid mud in it and was 'dead'. We applied *Microchalk* and it made a real difference. We have managed to get weed growing, and had a spawning of tench for the first time in several years. We used to use lime, but the *Microchalk* is safe to use and has given us better results. We are very pleased, and will be ordering more for next season".

Murray Marvell, Moorhall and Belhus Angling Club: "In recent years, our lake has suffered from blooms of blue green algae, and we have had areas of deep black mud. The water weeds had died back, we had lost some fish and the water clarity was poor. We dosed the lake with *Microchalk* in April/May, and within 6 weeks, the water weeds began to grow again. The clarity of the water improved, we didn't get the blooms of algae that we normally do, and the silt was reduced. Other fishery managers who saw the results couldn't understand why we didn't have residues on the lake bottom like they had after using a different product. Even the EA couldn't believe the improvement in water quality!"

David Midgley, Fishing in France (fish farmer, fishery owner): "Application was extremely easy, and the results have been superb. Before treatment, the lake water quality was dire, with a pH of 5.4 (!), murky and fairly lifeless. After treatment, the pH rose steadily to the mid 7s, and the productivity of plant life (marginal and water weeds) and invertebrate food, like snails, increased. The water is now less murky. *Microchalk* is an absolutely brilliant product!"