

SD1 – Sludge Digester

The bed of most lakes and ponds is subject to continuous deposition of organic debris and detritus, such as dead leaves, faecal waste from fish, and uneaten bait from anglers. It is common for this to build up over time due to the decomposition processes not keeping pace with deposition (this is especially true of vegetable material). Thus, these still waters can accumulate ever-deeper mud (with increasing oxygen demand by decomposing organisms) and diminishing water depth. Heavily stocked commercial fisheries, with high levels of introduced bait, are especially vulnerable.

If the excess mud is not reduced, water quality and fish health can be badly affected.

Adverse consequences include:

- X Year-on-year accumulation of mud, due to insufficient recycling by microbes, resulting in steadily increasing demand for oxygen. Decomposition in the absence of oxygen (evident as black, 'mousse-like' mud) 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, 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 kills 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

To assist in the management of fisheries, *Spirex Aquatec* has commissioned a remedy. The result is the **SD1** sludge-digesting product. Based on powerful technology used in industrial applications, **SD1** contains selected species of bacteria. These can break down organic matter very rapidly, especially vegetable matter, which normally breaks down very slowly. Assuming that the mud is mostly organic in nature, rapid breakdown can be expected, **as much as 80% in 1 year**. This avoids the costly and invasive process of dredging.

An additional benefit is that these bacteria need, and 'grab', many of the same nutrients that algae need. By depriving the algae of some of their nutrients, they can reduce the extent of algal blooms.

The bacteria are so active in **SD1** that it is best applied in the spring or autumn when the water temperature is not too high. Otherwise, deoxygenation might result (oxygen monitoring is advisable - *we can give guidance before application*). By applying in the spring, the bacteria can help to recycle uneaten angler's baits and fish wastes through the warmer months.

All of the different species of bacteria selected for **SD1** have been isolated from natural sources, and are completely safe for the user.

The performance of **SD1** can be improved even further when it is used in conjunction with another Pond Healer Remedy, **Microchalk**. This calcium carbonate preparation is ground so finely, that the average particle size is 2.8 microns—*less than 3 thousandths of 1 mm*! This creates ideal conditions for **SD1** bacteria to work to their maximum rate. *See separate sheet for details*

SD1 complements the wider range of *Pond Healer Remedies* and water quality management tools from *Spirex Aquatec* that help to maintain the balance in commercial fisheries, *keeping the fish, anglers and Manager happy!*

Contact us for more details



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