

REHABILITATING A POPULAR TROUT FARM

Josef Wolf, a fish-breeder in Bavaria, located near Lake Kleiner Arbersee in the Bavarian Forest, has been breeding mountain trout for twenty years. The restaurants of this tourist region wouldn't want to miss Mr. Wolf's delicate products. Even visitors from the North Sea are enthusiastic about the tender meat of the fish. Wolf is constantly trying to maintain and improve the high quality of the trout. But, the vicinity of the Kleiner Arbersee presents problems: in this acid biotope, with a pH-value of 5 or less, fish cannot survive. A pH of about 7 is ideal for human beings as well as for fish and other animals. Especially when the snow is melting, Mr. Wolf has to pay particular attention to his pond as melt waters from the snow are polluted in such a way that the pH drops to 4, and in this case he has to intercept the supply of acid water and prevent it from entering into the pond.

Midsummer Nightmare

But even in summer Mr. Wolf has a lot of troubles. When the temperatures are high and the pond is also used for recreational swimming, the trout in the small ponds have a hard time. They nearly die from their own secretions and the low oxygen concentration in the water. They can be observed in the water in a small circle under the shower of the supply pipe where the falling water produces a small amount of oxygen. In addition to the heat, the small low oxygen supply and the ammonia produced by the secretions, algae also threaten Mr. Wolf's trout. Algae are also consumers of oxygen; the water becomes muddy, the meat takes on a stale (muddy) taste and it turns a yellow colour.

The Tests in Lake Kleiner Arbersee

Mr. Wolf learns about a series of tests conducted in the Kleiner Arbersee, where a number of people were actually attempting to breed fish again. He meets the test team and is informed about the energy modules, which stimulate the self-purification of the lake and restore its ecological equilibrium in order to re-establish the proper living conditions for fish. Wolf inquires if it wouldn't be appropriate to apply the same system to his fish ponds, which are easy to supervise. And from the very beginning Wolf hopes that his breeding problems will be solved. From a breeding institute, Wolf buys 1.5 cm long trout, which might be sold in 1½ to 2 years time. He takes them from an institute in the vicinity to make sure that the trout are more likely to be acclimatized to the acid water. In the past he had already watched thousands of trout acquired from more distant institutes not survive in his ponds.

A Striking Result

And then there was the day, a hot day in July, when the "water man" arrived with the energy modules. Mr. Wolf reports: "Immersing the modules was done in a few minutes. The water man plunged three energy-carriers into a pond 25 x 35 m. At that time when they were installed, the trout would stand densely crowded under the shower of the supply pipe. That summer Mr. Wolf had had a lot of trouble because of the extended period of persistent hot weather. Next morning, when he went down to the pond, Mr. Wolf could not believe his eyes. The fish were now evenly spaced over the whole area of the pond. As the days passed he continued to check and never saw them congregating around the water supply as they used to. It seemed as though the oxygen information had spread so rapidly that the fish now felt comfortable in any part of the pond. He began to feed them carefully. Obviously he was able to satisfy the increasing appetite of my mountain trout."

Surprising in the Following Year

During the following winter, Mr. Wolf recognized that the trout in the energized ponds - three out of nine ponds were energized - were much livelier than the ones in non-energized water. He also recognized a very evident reduction of algae growth in these ponds. While the ugly concentrations of algae in the non-energized ponds were not only visible on the bottom of the pond, but even up to the surface, the water in the energized ponds was completely clear and free of ammonia."

It is important to look at this situation from the perspective of the fish breeder. He makes his livelihood from his small fish breeding operation, where hungry tourists come to buy the delicious grilled trout directly from him and eat them on a small, inviting porch. Every day he is feeding and watching his fish. The clear water of the energized ponds fascinates him most. How is something like that possible? Which forces operate in the energy modules?

And then finally there were the first comparison of growth. Wolf was astonished to see that the trout in the energized waters did not only feel better, but they also grew faster. They reached their normal size four months earlier. Wolf very proudly presented us the completely white meat of his trout from the energized ponds. At noon, when we tried them, we were impressed by their delicious taste. The hotel's housekeeper, who has known Mr. Wolf and his trout operation for many years and was aware of the energy modules being used, said: "These trout definitely taste better; my clients are sure about that. The meat is tender, although it does not fall apart, and it has a delicious taste."

Red Potatoes – Mr. Wolf's Favorite Meal

Fish breeders also have their own favourite meal, and in Mr. Wolf's case it is red potatoes; the kind that are dug out of the soil and have a firm, red skin. In the same manner as any farmer tries to compost dung from his own animals, Mr. Wolf puts the layer of sludge (from the bottom of his ponds (approximately 10 - 15 cm thick) on his garden. Prior to putting it on the garden he puts it in a compost heap to decompose.

However, in spite of many attempts, he has so far not been to successfully grow his own red potatoes, because they did not grow satisfactorily in the sludge compost. Instead, the potatoes he plants showed signs of early rot and the harvest yielded nothing but white potatoes. However, when after one year, Mr. Wolf drained the pond basin containing the energy modules he recognized a significant difference, even in the sludge layer. In the past, he used to have to use a broad device, similar to a snow shovel, to dig up the sludge, as it was so liquidy to remove properly with a normal shovel. Yet, in contrast, the sludge from the energized ponds could be dug out with an ordinary spade. It was remarkably drier and, above all, there was no smell. So Wolf had finally gotten rid of his last big problem: both tourists and neighbours, alike, had complained about his compost heaps -- the smell of which forced them to close their windows as they past them. Such a sludge layer has its own odour on sunny days.

Formerly Wolf had to wait up to six months before he could plant his potatoes. Now he found he was able to plant potatoes into the sludge removed from the energized ponds after just eight days! Furthermore, at the time of the harvest this sludge yielded delicious tasty red potatoes.

Joseph Wolf is satisfied and looks forward to a good season.

To learn more about rehabilitating damaged ponds, dugouts and water bodies contact:

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