



Fish Farming PROFI-LINE



Four products
for optimum care
of covered ponds



Reliability that gives you confidence



Experts when it comes to water and ponds

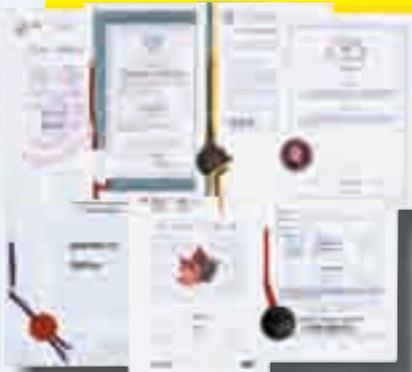
The **Söll** philosophy is to offer products with maximum effect that are ecologically compatible and which are not harmful to humans or fish. In the development of our products we draw on our many years of experience in the area of drinking water treatment. We have examined the natural and self-cleaning processes in ponds and waterways and make use of our sound knowledge in developing our products.



As a producer and developer of water-chemical and microbiological products we stand for: Product quality, legal products and economic efficiency by guaranteeing reasonable prices. **Partner-like cooperation with our customers is the basis for long-term and fair business relationships.**

Trailblazing patents for water treatment and water care:

125 industrial property rights/industrial property rights applications of these, 85 patents/patent applications



12 years of research and development for better water.
MADE IN GERMANY



CERTIFICATE

The TÜV CERT Certification Body
of TÜV Hessen

hereby certifies in accordance with
TÜV CERT procedures that



Söll GmbH
Fuhrmannstraße 6
D-95030 Hof

has established and applies a
quality management system for

**Research and development, production and sales of
products, processes and systems for treatment of water**

An audit was performed. Report No. 4153 3187
Proof has been furnished that the requirements according to

DIN EN ISO 9001 : 2000

are fulfilled. The certificate is valid until 16. August 2009

First certificate

Certificate Registration No. 73 100 1824



Standort: 010-August-2009

www.tuev.com
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TÜV CERT Certification Body
TÜV Hessen

Water should live



Falkenstein dam



Trout farm



Erlach lake



Mr. Wolfrum's fish ponds



AquaStab® Superkalk

Water stabiliser

To quickly adjust the optimum pH level in pond culture. Much more effective than normal lime¹

Page 8

We thank the Federal Ministry of Education and Research (BMBF) for their help in developing this product (subsidy reference no. 02WT9841/3)



Peridox®

Biocide product for hygiene in pond culture

Reduces parasite pressure in covered ponds, destroys thread algae and increases the oxygen content

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baua: Reg.No. N-36263



Identification according to EU-Guideline 98/8/EG:
Use biocides safely. Always read the label and the product information before use.



SchlixX®

Reduces pond sludge

To keep your pond healthy, to actively reduce sludge levels and to prevent the water silting up

Page 12



SchlixX® plus

Extra microorganisms

To keep your pond healthy, to actively reduce sludge levels and to prevent the water silting up with a long-term effect due to the microorganisms

Page 14

AquaStab® Superkalk

Much more effective than normal lime¹



- Adjusts the optimum pond environment¹
- Adjusts the pH level to the optimum range and stabilises it
- Detoxicates the fish in water that contains nitrites
- Spontaneous separation of ammonium/ammoniac
- Increases yield by more than 50%

AREAS OF APPLICATION

Plant and algae growth affects important water values in your production pond. Söll **AquaStab® Superkalk** creates ideal living conditions for all fish within a very short time. Optimum carbon dioxide concentration, hydrogen carbonate and calcium concentrations are vital for all living creatures in your pond. Söll **AquaStab® Superkalk** encourages the healthy growth of flora and fauna by adding calcium in the form of carbonate hardness. The biological self-cleaning power of your pond is activated immediately. Söll **AquaStab® Superkalk** improves water quality for a stable, ecological equilibrium in production ponds. Söll **AquaStab® Superkalk** is especially suitable if your pond contains harmful substances such as ammoniac, nitrite and heavy metals or if your fish are showing signs of weakness. As a positive side effect Söll **AquaStab® Superkalk** also reduces corrosion in pumps and piping.

EFFECT

Söll **AquaStab® Superkalk** adds vital calcium and carbon dioxide to the water. Carbon dioxide is controlled to create a natural equilibrium (for both excess and shortage). The increased carbonate hardness (CH) acts as a buffer, which keeps your water within a stable pH range of 7.5 to 8.5 (diminished pH fluctuation). pH levels above 8.5 and strong pH fluctuations put a strain on your fish. This stress weakens the fish, slows growth and prevents them utilizing their food properly. With stable CH and pH levels you prevent diseases such as Costia, Trichodina and Chilodonella which breed on weakened fish and which can lead to high losses. Diseases in fish stocks caused by acid and alkaline waters no longer occur if the product is used properly. Söll **AquaStab® Superkalk** reduces feed quotients and helps the fish grow. The product supports the growth and reproduction of microorganisms feeding on algae (e.g. daphnia and rotatoria). Purifying microorganisms benefit from the optimal conditions in the pond and in the filters. By adding calcium Söll **AquaStab® Superkalk** also stabilises the egg shell and thus the spawning quality. All these benefits of Söll **AquaStab® Superkalk** can increase your yield by more than 50%.

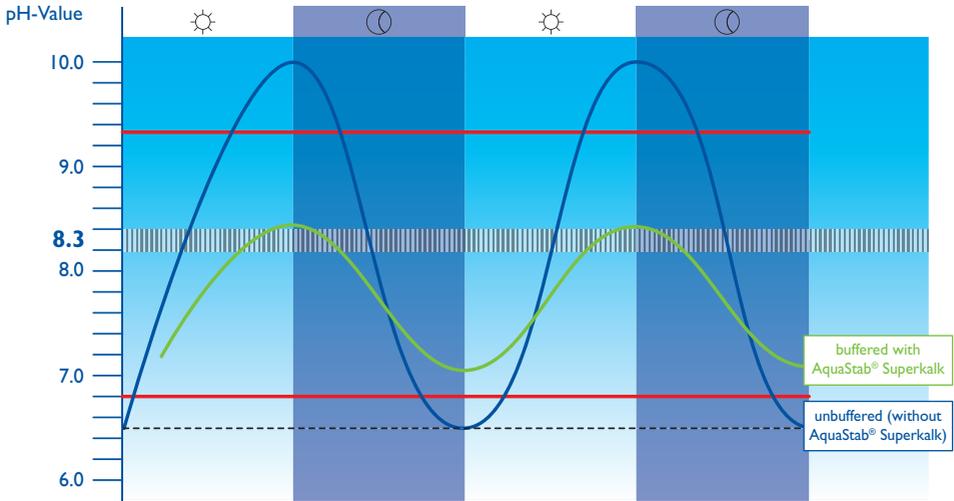
¹ On the whole, it can be said that the CarbonAdd®* buffer system enables you to control the pond environment in the direction desired by the pond owner. The same effect is not achieved by adding lime to the pond.

Excerpt from Fischer & Teichwirt Issue 6/2001

Author Dr. G. Füllner

* CarbonAdd = AquaStab

pH level fluctuations day/night



Lethality values according to Brandt (1937):

pH level	9,2 - trout, perch
pH level	10.7 - pike
pH level	10.8 - carp, tench

pH fluctuation = Direct effect on fish stocks

- Acidosis caused by fluctuating pH levels with:** jumping, asphyxia resulting from CO_2 poisoning, gill necrosis².
- Diseases caused by a rise in the pH level:**
Erosion of the gill epithelium and fraying of the fins, mucous congestion of the skin and gills

APPLICATION

a) Method of application

Söll **AquaStab® Superkalk** must be *spread evenly* over the entire surface of the pond without dissolving it in water beforehand. After application the water clouds over for a short period of time, which is a desired side effect. Filter systems and other equipment may remain in operation during application.

b) Dosage

100g Söll **AquaStab® Superkalk** for each 1m^3 (1,000 liters) pond water. However, sometimes a higher dose is recommended. This is the case if, in the early evening hours, the pH value is above 9.5 and/or the CH level is below 5°dH . We will be happy to determine your water values if you require.

c) Ideal Time of Application

With **AquaStab® Superkalk** you achieve the best results if you use it in spring or if you have fluctuating water values.

Scientific tests prove:

With AquaStab® your fish live longer and they utilise the feed better, which leads to rapid and improved growth[1]. The water is clearer and remains stable and biotope-compatible. AquaStab® triggers the natural self-purifying process in ponds in just a few minutes. Always. AquaStab® encourages a high level of biological diversity and thus closes natural food chains[2].

[1] Saxon State Institute for Agriculture, Fisheries Department

[2] BMBF - Federal Ministry of Education and Research, subsidy reference number 02WT9841/3

EU Patent
0737 169.

AquaStab® Superkalk

Much more effective than normal lime¹

NOTE

a) Diminished effect: If there is a permanent source of acid or lye in the water, Söll **AquaStab® Superkalk** has to act constantly as a neutraliser and is thus consumed more quickly. Once it has been completely used up, the pH value is no longer stable. Note: Söll **AquaStab® Superkalk** is water soluble. In flowing channel systems or in ponds with an inflow and outflow the effect is guaranteed up to an 8-fold exchange of the water in the pond.

b) Interactions with other products

From the Söll care range:

Söll **Peridox®** and Söll **AquaStab® Superkalk** should not be used at the same time. We recommend that Söll **AquaStab® Superkalk** should be applied one day before an application of Söll **Peridox®**. The other products in the Söll care range can be used together with Söll **AquaStab® Superkalk** at any time.

c) Warning

If, after the application of other pond treatments, the pH value remains consistently high, Söll **AquaStab® Superkalk** can usually not achieve an improvement alone unless used in excessively high doses. In this case both the pH and CH levels should be checked with a test set. Do not use any powder products containing gypsum, as it does not dissolve well in water and penetrates the sediment. Once in the sediment, gypsum may be broken down into hydrogen sulphide (smell of foul eggs), which is highly toxic and can seriously damage the biotope.

PACKAGING UNITS

Söll **AquaStab® Superkalk** is available in the following packaging sizes: 25kg, 50kg, 500kg. Store in a cool, dry place; protect from frost.

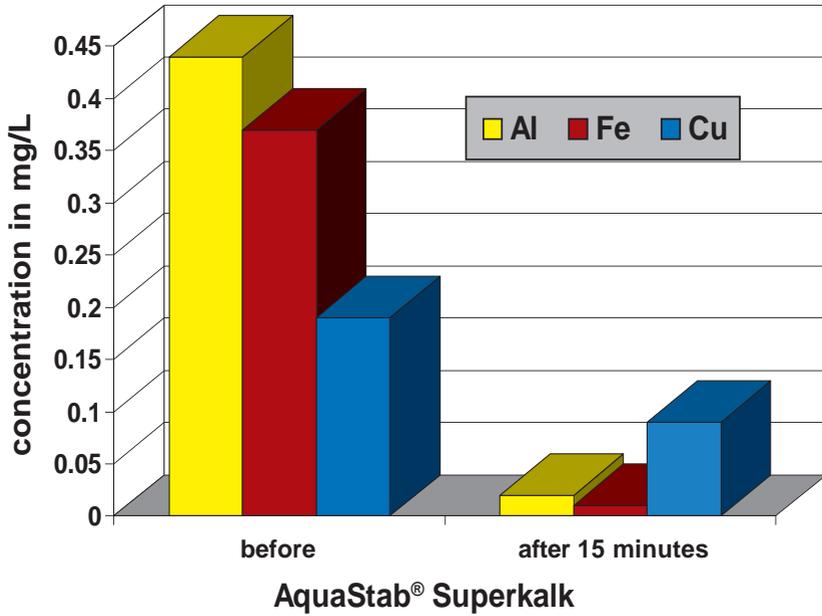
Application example **AquaStab® Superkalk**



All positive water-chemical effects (lowering the pH level, increasing the buffer capacity and thus improving pH stability, increasing depth transparency) were observed in the treated areas of both Erlach and Säugries ponds. No negative results were observed.

Excerpt from Fischer & Teichwirt Issue 11/1997
Authors, Ingrid Schuster, Thomas Willuweit, Dr Robert Klupp

Concentration of metals

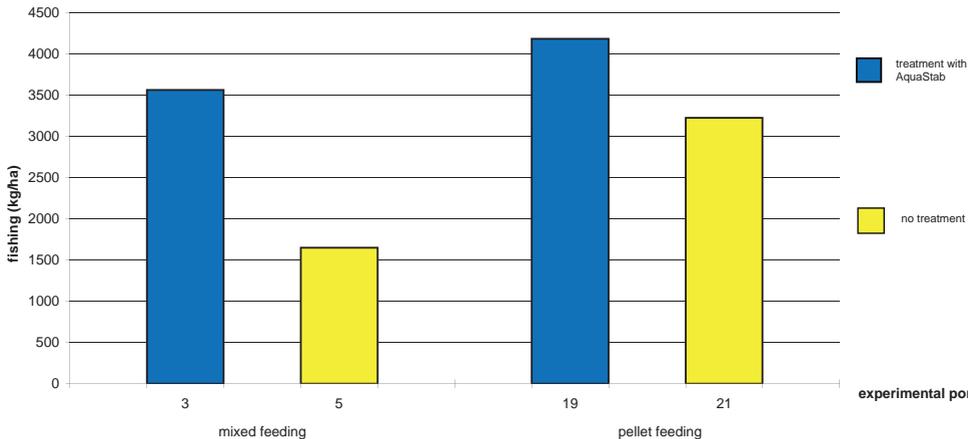


Significance of metals in ponds:

The concentration of metals in ponds can increase due to acid rain, for example. For the fish this is a high burden which results in slower growth and also weakens the immune system of the fish.

Increased yield at Königswartha K experimental pond,

Königswartha 1997 fishing kg/ha



Peridox®

Biocide product for hygiene in the veterinary field



- **Is not subject to the restrictions of the German Maximum Residue Limits Regulation**
- **The active agent degrades leaving no residue**
- **No waiting time until slaughtering (Not bioaccumulable)**

The special pH-stabilising composition optimises the effective time and the effect of the active agent. The oxygen content of the water is also increased.

AREAS OF APPLICATION

Söll **Peridox®** is a biocide powder product which was developed to reduce the large-scale growth and spread of parasites and algae in production ponds. Parasites are harmful organisms as they can spread enormously. They weaken fish, which has acute damaging effects on the stock. When the fish are weak they can also develop secondary diseases, such as bacteriosis, etc., which results in more losses. Söll **Peridox®** is a legal, effective, tried and tested product that can protect your fish stocks.

USE IN CASE OF PARASITES

Stable ground water values prevent various parasites such as Costia, Trichodina and Chilodonella as well as many secondary diseases, like diseases caused by acid and alkaline water in production ponds. Söll **Peridox®** prevents gill necrosis and mucuous congestion of the skin and gills.

Effect and benefits: **Peridox®** is a very easy to handle product, which does not immediately endanger the fish stock if you add slightly too much; the once-a-day application also saves a lot of time. As soon as Söll **Peridox®** comes into contact with the parasites or the swarmer this triggers an oxidation process. This destroys the cell structure of the parasites. The parasites die. With the recommended dosage and depending on the pond temperature swarmer that can normally live for 33 to 48 hours are killed off in just 3 hours. However, as the adult parasites bring more swarmer into the water, Söll **Peridox®** should be applied three to four times. The oxygen that is released through the oxidation process is dissolved directly in the water and thus increases the oxygen content in the water.

Recommended dose for parasite infestation with, for example Ichthyophthirius (white spot disease) or Gyrodactylus on rainbow trout:

35-55 g/m³ production water (for Gyrodactylus infestation up to 60g/m³)

Application: **Scatter the product** across the surface of the production pond. If the carbonate hardness is above 15°dH, increase the dose by 10-20 g/m³.

APPLICATION FOR THREAD ALGAE

Thread algae hinder pond culture because they make fishing more difficult and cause the fish to become entangled.

Effect and benefits

Söll **Peridox**[®] acts on direct contact with the thread algae. The cell structure of the thread algae is destroyed and they dissolve completely within 24 hours. Within just a few minutes you can see the algae breaking up and floating to the surface of the water. We recommend that you fish the algae out of the water to prevent renewed release of the nutrients that could cause thread algae to form again.

Dosage for thread algae

Local application 35 - 45 g/m² production pond

Application: **Scatter** on the local accumulations of thread algae

The only way to prevent the constant widespread growth of thread algae is to reduce the nutrient input. We recommend the use of our product, Söll **SchlixX**[®] 1 day before you apply Söll **Peridox**[®].

APPLICATION IN CASE OF OXYGEN DEFICIENCY

Oxygen can become depleted especially in the warm summer months or if there is too much sludge or too many fish in the pond, which leads to enormous losses. Söll **Peridox**[®] is used to treat acute oxygen deficiency and to control the available oxygen in the water, and thus prevents gill necrosis, for example. **Effect and benefits**

In cases of acute oxygen deficiency scatter Söll **Peridox**[®] directly into the production pond. The active oxygen reacts with the water and immediately increases dissolved oxygen.

Dosage for oxygen deficiency

10 g/m³ production pond is provided by around 1.5 mg/litre

Application: **Scatter the product** across the surface of the production pond

IMPORTANT: Never add more than 100 g/m³.

PACKAGING UNITS

Söll **Peridox**[®] is available in the following packaging sizes: 25kg, 50kg, 1,000 kg. Store in a cool, dry place; protect from frost.

Labelling according to EU Directive 98/8/EC:

Use biocides safely. Before using always read the label and product information.

baua DE: Reg.-Nr. N-36263



SchlixX®

Eliminate sludge without an excavator



- *Considerably reduces organic sludge deposits*
- *Bonds phosphorous and thus prevents algae blooms*
- *Prevents decay and the formation of pollutant gas*
- *Ideal for production ponds*
- *Improves the quality of the fish flesh*

AREAS OF APPLICATION

Sludge forms in every pond over a period of time, for example due to leaves, dead microorganisms, food residue and fish excrement. These can cause decay processes, which make the water cloudy and give it a nasty smell. These decay processes always limit the dissolved oxygen in the water.

As deposits build up over the years the riparian plants cause natural silting. The first plants that are able to take root on a higher layer of sludge are reeds, rushes and reed mace. Their firm roots hold the sludge together and enable more sediment to build up. Fish farmers thus lose production area.

Söll **SchlixX®** frees your production pond from sludge and sediment. This saves you the effort and cost of excavating the pond. Söll **SchlixX®** is also one of the strongest phosphate binding agents in the world. By binding phosphate, the algae's main nutrient, Söll **SchlixX®** prevents algae and thus enables a long-term and lasting reduction of algae in ponds.

EFFECT AND BENEFITS

Over a period of up to 6 weeks Söll **SchlixX®** remains active on the bottom of the pond and generally up to 80% of the organic sedimentation is removed during this time.

- Considerably reduces organic sludge sedimentation
- Prevents decay and the formation of pollutant gas
- Binds phosphate
- Recovers production area
- Ideal for production ponds

With our patented combination of minerals the layer of sediment is actively oxidised and is thus decomposed. Heavy metals and other substances that are harmful to fish as well as phosphate, the main nutrient for algae, are binded. This results in a visible reduction in the sludge layer and effective prevention of algae blooms. Foul smells are immediately neutralised.

APPLICATION

50 g Söll **SchlixX**[®] per 1m³ (1,000 liters) water.

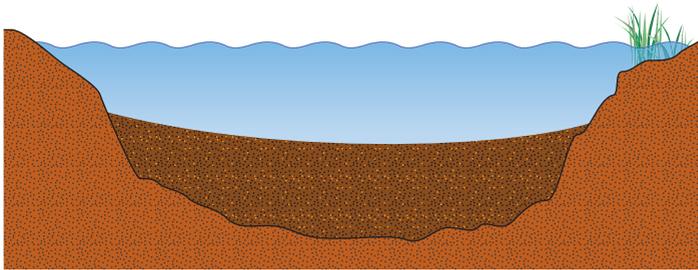
We recommend that you use a double dose if the sludge is especially thick.

PACKAGING UNITS

Söll **SchlixX**[®] is available in the following packaging sizes: 25kg, 50kg, 500kg.

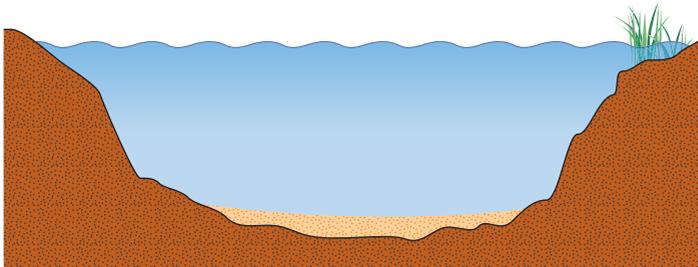
Store in a cool, dry place; protect from frost.

Pond before treatment with Söll SchlixX[®]



Sludge is prevalent. The proportion of inorganic material in sludge is generally very low.

Pond after treatment with Söll SchlixX[®]



Most of the organic sludge is decomposed. All that is left is the small proportion of inorganic material.

SchlixX[®] plus

Extra microorganisms



- *Twice as effective due to highly active microorganisms*
- *Clearly and sustainably reduces organic sludge sedimentation*
- *Prevents decay and the formation of pollutant gas*
- *Binds phosphorous and thus prevents algae blooms*
- *Ideal for production ponds*

AREAS OF APPLICATION

SchlixX[®] plus is even more effective in removing sludge due to the addition of highly active microorganisms. As soon as they are added to the water they start decomposing organic sludge, dead algae, plant residue, leaves and fish toxins.

Decay processes that could have a negative effect on the fish flesh are prevented with **SchlixX[®] plus**, which has a positive effect on the quality of the fish flesh.

With Söll **SchlixX[®] plus** you free your pond from sludge and sedimentation extremely effectively and sustainably. By recovering production areas you can also increase your yield.

SchlixX[®] or **SchlixX[®] plus** ?

From a sludge thickness of approx. 80cm we recommend Söll **SchlixX[®] plus**. On the one hand, with the highly active microorganisms you have an additional biological component to support the active oxidising function of **SchlixX[®]** to decompose the sludge. Some of the microorganisms are still active after 6 weeks when the mineral combination of **SchlixX[®]** has dissolved, which ensures a long-term reduction in sludge.

APPLICATION

SchlixX[®] plus consists of two components.

Dose for 1 m³ (1,000 litres) water: 45g of Component A and 5g of Component B

Mix both components well and scatter over the pond.

IMPORTANT: Please remember that **SchlixX[®] plus** works with microorganisms and that because of this the water temperature must be at least 8°C. If ponds frequently have an oxygen deficiency, you must first ensure an adequate oxygen supply.

PACKAGING SIZES

Söll **SchlixX[®] plus** is available in the following packaging sizes: 25kg, 50kg, 500kg.

Store in a cool, dry place; protect from frost.





*... when you care
for your fish!*



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