The following information will help you get optimal results with Farm Pond Treatment. Farm Pond Treatment is a combination of ultra-concentrated liquid bacteria and powdered, slow release, EcoSocks.

**Liquid Concentrate Bacteria**

PondPerfect is a liquid, all-purpose biological pond additive specially formulated for use in farm ponds. PondPerfect is super-concentrated, with a ideal mix of nitrifying and denitrifying bacteria that out-competes algae for nutrients. When used with EcoSocks, PondPerfect dosing is performed only once a month.

**EcoSocks**

EcoSocks are freeze-dried, sludge reducing bacteria and food-grade bacterial nutrients, When placed into water, the EcoSock continuously produces sludge reducing, algae-fighting bacteria for a full month. After one month, the EcoSock is removed, discarded as yard waste, and replaced with a fresh EcoSock.

PondPerfect (liquid) and EcoSocks (powdered) are 100% live, natural, non-toxic, non-chemical products which are used in conjunction to eliminate excess algae blooms, pond odors, excess sludge, and string algae in lake and ponds, (decorative, recreational, and fisheries). Please review the following sections:

A. How Does Farm Pond Treatment Improve Farm Ponds  
B. How to Determine Dose for a Specific Pond  
C. How to Best Apply Farm Pond Treatment  
D. Timetable of Expected Results  
E. Compatibility of Farm Pond Treatment with Desirable Aquatic Plants and Fish  
F. Storage and Shelf Life of Farm Pond Treatment
Following the guidelines in this manual will ensure optimum results from use of Farm Pond Treatment. You will know what types of ponds to treat and what results to expect. You will know the timetable for positive results to occur, and you will obtain the greatest value from use of Farm Pond Treatment.

**A. How Does Farm Pond Treatment Improve Large Ponds / Farm Ponds**

There are all sorts of pond types and problems, so let’s keep it simple:

- Farm ponds have algae problems, sludge problems, and odor problems
- Farm Pond Treatment help with all of these problems.

**Algae Problems**

Algae problems occur whenever you have a combination of pond water, sun, N(nitrogen) and P (phosphorous). Sun and N are the biggest problems, while P contributes to a lesser degree in most ponds (and is sometimes the dominant cause of algae blooms).

The live bacteria in PondPerfect / EcoSock Farm Pond Treatment compete with the algae for N and P food. The Farm Pond Treatment bacteria consume N and P faster than the algae. As a result, excess algae is eliminated. It is very important to note that Farm Pond Treatment does not eliminate all algae. Some algae are needed to help keep oxygen in the water. Farm Pond Treatment only eliminates the severe bloom. The best way to think about it is that Farm Pond Treatment restores the natural balance in a pond, which means a healthy mix of natural bacteria and algae living together. Through use of Farm Pond Treatment, a pond is restored to its’ natural clarity and beauty (with a proper balance between natural bacteria and algae).

**Sludge and Odor Problems**

Almost all ponds, particularly older ponds, have sludge build up. Sludge is the organic sediment located at the bottom of the pond (see the image below):
Several problems happen when the sludge build up gets heavy. The pond may have plenty of oxygen in the water near the top of the column, but in the sludge at the bottom of the pond, there is very little oxygen. Disease-causing, odor-causing “anaerobic bacteria” live in the sludge at the bottom of the pond.

The worse the sludge build up, the greater the risk of fish disease, and the worse the odors are. Foul pond odors (usually thought of as “rotten egg smell”) come from the sludge in the bottom of the pond.

Farm Pond Treatment digests the sludge at the bottom of a pond. This means that the risk of fish disease is reduced, and foul pond odors are eliminated. Note: Farm Pond Treatment digests organic sludge (leaves, dead algae, fish waste, etc.). Farm Pond Treatment do not digest clay, sand or silt.

B. How to Determine Dose for a Specific Pond

Follow these guidelines to make sure you get the best results and value from Farm Pond Treatment.

These three things are most important:

- The dose is based on the surface area having problems. If the whole pond is having a problem, then use the whole surface area. If a 1 acre pond is covered on half of the surface, use the dose for ½ of an acre.
- Double the dose for ponds with severe, long-standing problems
- Apply the product where problems are most severe

Farm Pond Treatment Dose Based on Surface Area

The Farm Pond Treatment dose is one box per month (which means one gallon liquid, and one EcoSock) for every ¼ acre of pond surface area with a problem. Dose PondPerfect and EcoSocks at the same time, once a month. PondPerfect provides maximum instant action, while EcoSocks work throughout the month to maintain the required level of activity.

Apply most of the PondPerfect where problems exist. Secure the EcoSock (via the attached tether) where problems are most severe).

Remember, the dose is based on the surface area of the pond having problems (not the entire surface of the pond, unless the whole pond has a problem). If you have a 2 acre pond, but only have a problem in one end, with half an acre surface area, then use the dose for ½ acre.
Double the Dose for Ponds with Severe, Long-Standing Problems

Some ponds that have had severe problems over the long term should be treated initially with a double dose. Reserve this mode of treatment for perhaps the worst 10% of ponds that require treatment.

The extra dose will speed the results, and will almost always overcome even the most difficult algae problems within 2 to 4 months of double application. In many cases, a single month with double dosing will overcome the otherwise persistent problems. Once the problem is solved, revert to the standard dose to maintain a beautiful, healthy pond.

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**Dose Farm Pond Treatment once a month, based on surface area needing treatment:**

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<th>Acres</th>
<th>EcoSocks per month</th>
<th>PondPerfect Gallons per Month</th>
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<tr>
<td>2.00</td>
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**Note:** One box Farm Pond Treatment contains one gallon PondPerfect plus one EcoSock
Use Most of the Farm Pond Treatment Product Where Problems are Most Severe

In nearly all lakes and ponds, the majority of the unsightly problem occurs along the shore line, or at one end of the pond or the other. Sludge build up, however, may be present throughout the pond bottom, so it is difficult to precisely assess where the problems originate without doing extensive and expensive testing.

However, our experience shows that dosing around the pond periphery and only in problem areas is completely suitable. The natural diffusion of liquid PondPerfect from the shoreline to the center of the pond will properly disperse the product.

Similarly, the EcoSocks, which are generally anchored (using the attached tether) to the shoreline, do much of their work in the immediate vicinity. But the bacteria release by the EcoSocks work their way through the water and handle the sediment in the center of the lake.

If you have an unusual situation, such as a lake with with severe odor (sulfide) problems, you should base your dose on the entire pond surface area, and then distribute the product throughout the pond. But in the vast majority of the real world situations, you can simply dose the PondPerfect around the shore of the pond, adding more product where problems are most severe.

Similarly, position the EcoSocks around the pond where the algae problems and/or weed problems are most severe. This approach will minimize labor and produce excellent results nearly all of the time.

C. How to Dose Farm Pond Treatment

Of course, you need to know how much Farm Pond Treatment to add to a given pond. You also need to know when to begin or stop addition, how often to add, and where you should apply the product.

Summary of How Much to Add

For most ponds, simply figure out the square feet or the acres of the pond that needs treatment, then use the Standard Dose chart to determine how much PP you need to add. For extra deep ponds (ponds that are more than 15 feet average depth), increase the Standard Dosage by 25%.
When Should You Begin and End Farm Pond Treatment Addition

It is best to wait until the pond is at least 45 F or warmer before beginning treatment with Farm Pond Treatment. Treatment can continue throughout the spring, summer and fall. Once the water temperature drops below 45 F, there is little value in continuing treatment.

You can begin treating a problem pond at any time, assuming that you consider the temperatures noted above. You can begin treatment before a problem begins and prevent it, or begin after even a severe bloom and solve the problem (though this may require a double dose for one or two months).

How Often Should Farm Pond Treatment be Added

For best results, add according to the proper dose, once a month, every month.

How Should PondPerfect and EcoSocks be Applied

Shake the bottle before use. Dose the liquid PondPerfect around the periphery of the pond, where the problems are worst. For best results, mix the proper dose of PondPerfect with several times that volume of pond water, then distribute this mixture around the pond periphery.

Apply most of the liquid to the zones where the algae, sludge, or odor problems are most severe. It is often best to choose 4 or more dosing points (more dosing points for larger ponds) Otherwise, let normal wind action and natural mixing distribute the product.

Similarly, install the EcoSocks where problems are most severe. Replace once a month. Discard depleted EcoSocks as yard waste.

D. Timetable of Expected Results

Knowing when the various Farm Pond Treatment benefits will occur is important. When you understand what to expect and when, and then see it happen, you get the greatest benefit and satisfaction from the product.
Existing Problems – Timetable for Improvement

When trying to eliminate a severe, existing algae problem, the Farm Pond Treatment dose rate should be doubled until the problem is solved, then the dose is returned to the standard rate. The double dose rate for a problem pond is usually needed for about 2 to 4 months, but can be switched to the standard dose in as little as one month when results are positive. In some cases, switching to a double dose rate is effective for dealing with short-term algae blooms that occur during unusually hot or sunny periods.

Farm Pond Treatment is a natural, biological means of algae control that out-competes algae for nutrients. Farm Pond Treatment does not poison algae like chemicals (like copper sulfate) do. Therefore, do NOT expect the instant results that you may get with harsh chemicals. It will take Farm Pond Treatment a month, and possibly 2 to 4 months in severe situations, to really solve severe problems. While Farm Pond Treatment effectiveness is more gradual than typical chemical treatments, Farm Pond Treatment is actually beneficial for water quality, fish, wildlife, and your turf. Farm Pond Treatment will not harm any desirable plants, and Farm Pond Treatment is completely non-toxic. Here is the general timetable for expected results:

Odor Control is the Quickest Result

Any odor problems will dissipate within one or two weeks of the first application. Rotten egg and septic odors will be eliminated, and only a natural, earthy smell will be present. Any visitors to the pond will appreciate this benefit!

Algae Control Timeline

Zones of water clearing should be evident in the vicinity where you apply Farm Pond Treatment within the first week or two. Within 1 or 2 applications, algae around the edges of the pond will begin to darken or turn brown. That shows that the algae is dying, and is a sure sign of progress. Dead algae will eventually drop to the bottom of the pond. Between one to two months of treatment, it should be obvious that the algae bloom is being reduced and that the pond water is clearing. At this critical point, if progress is not yet satisfactory, continued the elevated dose for another month or two. By application 4, the pond should certainly be clear unless there is an unusual or unexpected aquatic condition.
**Sludge Reduction**

Sludge build-up comes from dead leaves, clippings, wildlife droppings, and the remains of past algae blooms. Sludge build-up is the main cause of bad odors, and increases the potential for fish disease. Farm Pond Treatment use will decrease the sludge build-up in any pond by 35% or more in any season. This benefit pond owners thousands of dollars in dredging expenses. Please take note of the sludge levels in any lake receiving Farm Pond Treatment treatment, as this benefit alone will be well worth the cost of treatment.

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**E. Compatibility of Farm Pond Treatment with Desirable Aquatic Plants and Fish**

**Compatibility of Farm Pond Treatment with Desirable Aquatic Plants**

Farm Pond Treatment is not an algaecide. It does not kill algae, or poison algae. Farm Pond Treatment is completely non-toxic.

Some users may ask if Farm Pond Treatment has a negative effect on desirable aquatic plants such as hyacinths, water lilies, and hornwort. The simple answer is that Farm Pond Treatment is completely compatible with and even beneficial for all desirable aquatic plants.

Remember, Farm Pond Treatment restores a natural balance between algae and bacteria. Farm Pond Treatment eliminates the “excess” algae, it does not eliminate “all” algae.

Properly balanced ponds have a natural mixture of algae, bacteria, fish and desirable aquatic plants. Aquatic plants consume N and P nutrients. Farm Pond Treatment does not starve these plants or rob them of nutrients.

In 13 years of experience, we have never had a problem with Farm Pond Treatment usage causing a problem with desirable aquatic plants. The key to understanding this effect is to remember that Farm Pond Treatment restores the natural balance between algae and bacteria. Farm Pond Treatment does not kill bacteria, or consume all of the nutrients.

You can be 100% assured that Farm Pond Treatment will not harm desirable aquatic plants.
Farm Pond Treatment is Beneficial for Fish

Farm Pond Treatment is beneficial for all fish. Farm Pond Treatment removes pollutants of all sorts from the pond. You can find additional Large Pond / Farm Pond testimonials on our website (www.tlc-products.com)

and please see our facebook site: www.facebook.com/pondperfect

F. Storage and Shelf Life of Farm Pond Treatment

Farm Pond Treatment consists of 100% live natural bacterial and requires simple storage precautions.

Do Not Freeze

If Farm Pond Treatment freezes, some of the liquid-based bacterial cells will rupture, and the product will lose about 25% potency. The freeze dried, EcoSock bacteria will not be affected by freezing. If the product is accidentally stored in freezing temperatures and the product becomes slushy or partially frozen, this is not a problem. However, if the product freezes solid, it will lose 25% efficiency. Therefore, do not let the product freeze solid

Store below 105 F, Preferably at Room Temperature

At temperatures above 105 F for longer than 24 hours, Farm Pond Treatment will be damaged. Farm Pond Treatment can reach 105 F without harm, but it cannot be stored this way for more than 24 hours. Farm Pond Treatment does NOT require refrigeration. Storage at should be above freezing, up to 105 F, preferably at room temperature.

Shelf Life

As long as the product is stored properly, shelf life is 2 years in unopened bottles. Opened containers of Farm Pond Treatment have a shelf life of one year.