

Pond Algae Solutions Presents...



Five Days To A Healthy Pond

Natural Solutions To A Clean & Clear Pond

Introduction

Dear Pond Owner...

Mark Washburn from Pond Algae Solutions here.

First off, let me thank you for subscribing to 5 Days to a Healthier Pond! I really appreciate the opportunity to share some of my thoughts about pond management with you over the next several days.

This report is divided into five parts or “days” that are loaded with tips and tricks and real case examples of what can be done to help make your pond, cleaner, clearer and healthier overall. The ultimate goal is to help you create a healthy pond that you can be proud of and to help you enjoy the time you spend, creating, managing and relaxing around your pond or water garden. The best part is, all of this can be accomplished in an environmentally safe manner!

This aspect of pond management has always been important to me. I have long believed that finding natural solutions, or at the very least, what I'll call, low negative impact alternatives, was always the best course to take in managing a pond. I mean think about it. Unless you're dealing with a pond that's totally devoid of life such as plants or fish, (and how many of us really find that appealing) the use of chemical controls such as algaecides really need to be used with caution. I've just always been terribly uncomfortable in using such things, and I'm sure more often than not, you've felt the same way.

In the evolution of my own pond management skills, I began to follow my gut and my heart in dealing with chemical controls, and started looking for viable alternatives to use in an effort to keep the ponds cleaner and better balanced. Piece by piece I put together a strategy that follows one fundamental principle that every product I use and recommend must provide an effective solution to a pond problem, with either low, or no negative impact! If a product doesn't meet this criteria, you probably won't find me talking about it in flattering terms!

The information you'll find in this ongoing report will cover the basics of a pond management philosophy that follows the same course. I'll offer up what I consider to be effective practices with low, or no negative risks. And I promise, this won't be a complicated expose!

We're not talking about rocket science. Just sensible and down to earth stuff that anyone can apply. In my mind, it's the best, and most common sense way to treat a beautiful pond that will ultimately reward you for your commitment of time and effort. If this sounds like the path you'd like to take in your pond management, then congratulations! You're one step closer to a clean, clear, and Healthy Pond!

Feel free to read the report one day at a time, or all in one sitting, the choice is up to you. I hope you'll find it helpful!

[Visit us anytime at www.pondalgaesolutions.com](http://www.pondalgaesolutions.com)

[Need help with a pond problem right away? Email me.](#)

Continue to scroll down to read Day #1...

Day #1- The Benefits of a Balanced Pond

As I write this, I'm going to assume that you've already got a pond in place that's experiencing some form of problem. If you're looking to build a new pond, you're in luck due to the fact that there's a ton of great books out on the market to help you plan the design and building of a new pond.

What we'll cover here is a general overview of what constitutes a balanced pond system and what does not. Balance, as I see it, is the answer, and the objective in managing your pond's health.

The word "balance" is a perfect term to use in this case because what we're really talking about is how all of the components of a pond's ecosystem relate to one another. For example, if you have aquatic plants in the pond, they draw nutrients from the water, and in turn, produce oxygen. When you throw fish in the mix, they consume the oxygen and ultimately produce byproducts and gases that in turn feed the plants.

As long as the two elements (plants and fish) are nearly equal in their influence, the pond can stay in balance. This assumes of course, that plants and fish are the only influences in a pond. Realistically though, there are many influential elements that can affect your pond.

Some of these factors are the pond's size and depth, the amount of sunlight it receives, it's overall temperature and flow or water movement, pollutants and other substances from runoff, and the kind and number of fish and plants you may have.

As you can see, it's a pretty broad array of things that can influence your pond! Some of these factors are certainly easier to control than others. Changing the relationship between fish and plants is not necessarily a daunting task. Changing the size or depth, or controlling runoff into a pond can pose a much greater challenge.

There are some pretty obvious indicators that present themselves when a pond is out of balance. Most notably, and thankfully, all types of algae can develop in an unbalanced system. I say "thankfully" because an overgrowth of algae can serve as a terrific "early warning" that something is a bit out of whack in the pond system. Whether it is string or filament, mat, or planktonic algae, it all leads to the potential for an ugly, stinky mess, and one that's hard to ignore.

One unseen component in all of this growth is that fact that algae that's left unchecked can both create and consume a lot of the oxygen in the pond and make life for any fish and aquatic plants quite miserable if not lethal, particularly when the algae itself is going through a dying cycle.

A balanced pond on the other hand, has several things going for it. First off, the water, submerged rocks, and the bottom of the pond, are relatively clear and devoid of any algae growth. This is not to say that the pond is completely pristine and free of all algae, but algae is not overgrown or overtaking the pond. There are usually no off odors or an extreme discoloration in the water (a slight tint of brown or green can actually be a good indicator of water that's well balanced for pond life).



Fish, aquatic plants, and maybe even a little bit of algae all appear healthy and vibrant and full of life in a collaborative environment. All of this is really what most pond owners are searching for. The big question is, how do we get there from here?

In the upcoming installments in this series, I'll be covering in detail why and how a pond gets out of balance, what the results of this imbalance can be, and ultimately how to remedy the situation and bring the whole aqua system back into a balanced state.

If you've been constantly trying to battle algae and poor water conditions in your pond for some time, take heart, because I promise you, some type of remedy will lie within this report.

Whether it's a single solution to the problems you face, or a combination of known approaches, I think you'll find the answers to help you improve your pond, regardless of it's own unique situation. With that said, be sure to scroll down to read Day #2 of the series "Cause and Effect and Your Pond", you won't want to miss it.

Thank you once again for taking the time to subscribe to this series. I look forward to sharing more information with you next time.

Stay well and enjoy your Healthy Pond!

Day #2- Cause and Effect and Your Pond

Welcome back, and welcome to Day #2 of "Five Days to a Healthy Pond"!

In the first installment, we talked a bit about the ultimate objective in pond management and that's the ongoing effort to achieve balance in your pond's ecosystem. We briefly covered a few of the "influences" that can affect your pond's health and what can result when things aren't going too well.

Today, I want to delve into this cause and effect issue in greater detail because understanding some of these fundamental truths will go along way in helping you manage your pond more effectively without spending a ton of money to do it.

In our case, (and because this is the most likely reason you're reading this) our "effect" is an over abundance of algae growth. You and I know firsthand what kind of problems algae can create in your pond so I'm not going to review those again here. Instead, lets breakdown why the algae got out of hand in the first place.

In the simplest terms, algae, as well as other unwanted aquatic plants and weeds, prosper when there is an excessive amount of nutrients in the water system. So just what are these so called "nutrients"? Well bare with me as we review our last chemistry lesson from (in my case) many years ago. Control your excitement if you can!

The nutrient we're talking about is otherwise known as "nitrates" in chemistry parlance. Nitrates are basically harmless compounds that have come about due to the ongoing breakdown of both ammonia and nitrites in the pond. Plants love nitrates like I love chocolate...they just can't get enough of the stuff!

However...when the nitrate level in your pond exceeds the demand that your aquatic plants may require, guess what...there's a little single-celled green pac man that just loves nitrates too, and they're more than happy to help you out!



Now back to chemistry 101. Nitrates as noted, come from the breakdown of nitrites, which come from the breakdown of ammonia. These two compounds are a natural part of the pond's ongoing process of keeping things in balance. Therefore both are not necessarily bad in the right amounts, but in excess they are both potentially lethal to fish since they rob the pond of oxygen during their breakdown and transformation process into nitrates.

Since we can pretty much trace all of this back to ammonia levels in our pond, where in the world would this ammonia come from? Well, simply stated, from a lot of things.

One of the primary culprits is fish waste, so the usual explanation for high ammonia levels is "there are too many fish for the pond's size". Decaying organic matter, like dead leaves, grass clippings, and ummm, dead algae from chemical spraying...sorry I just had to throw that in there...also create ammonia during their decomposition.

In regards to larger ponds in agricultural country, like where I live, there is a very strong possibility that chemical and natural fertilizers can run off and leech into the pond. Golf courses in particular can have a problem with water quality due to the fact that they use phosphates and nitrates to help keep their fairways green and lush.

Take a moment, or even get up and go out to your pond if it's convenient to do so, and spend a few minutes looking for some possible sources of nutrients. Are there too many fish in the pond for it's size? What about desirable plant life like water lilies or submerged grasses...are there enough of these to help support the nutrient load?

And what about external sources of nutrients...are there overhanging trees near the pond that drop a lot of leaves in the fall...or does water flow into the pond from a high nutrient runoff situation? Does your neighbor secretly sneak over and dump grass clippings into your pond late at night, just because he's jealous that YOU have a pond? Hey, it's just a suggestion...

Learn to identify these possible "contributors" and you will be well on your way to controlling them. If it's a fish issue, do a little research (or patiently wait for Day #4 in this series) to find some recommendations on how many fish are adequate for certain sized ponds.

If you like aquatic plants, but haven't done much with them so far, consider adding a few to not only make the pond more esthetically pleasing, but also to make it healthier. (If you've already maxed out on plants or don't want to add anymore, stay tuned for other natural alternatives)

If your problem may be from a buildup of organic materials, try to eliminate the source (except your neighbor..that would be unethical) or be sure to make every effort to remove the "compost" in your pond at every opportunity. As for runoff situations...if you can create a diversion for the runoff, like a raised mound, dike or trough, this should be of some help.

Hopefully this chemistry lesson wasn't too painful. All in all, it's a pretty simple process to explain, but no less amazing in it's natural wonder. It almost makes dealing with chemistry kind of fun don't you think?

Ok, that was over the top.

Anyway, I hope that at this point you'll see that with a little bit of planning or prevention, you can make some inroads into achieving a healthier pond. A little knowledge really is a powerful thing, and a great money saver too. Still, if you've

tried some of the things we talked about earlier and are still having problems, never fear, there's more valuable information yet to come!

Thanks for joining me today. Take care...and enjoy your healthy pond!

Day #3- Testing the Waters

Good day to you!

And welcome to Day #3 of "Five Days to a Healthy Pond".

In the first two installments of this series, we covered the important points of why a balanced pond system is our ultimate goal, and we also covered the main reasons a pond can get out of balance and what the results are when this occurs.

Today, I want to talk about a simple, low cost tool that can really make this balancing act much easier.

You know, it's one thing to know you've got a problem with balance in your pond once the problems emerge in the form of algae...it's another thing to take a proactive approach to ensure that algae never prospers in the first place.



Yet, you can't really see ammonia loads, and you can't really gauge nitrite levels with the naked eye. But you can use test strips or tablets to get a good read on the nitrogen cycle, where your pond is at, and where it's going into the future.

I use test strips to measure a number of things such as the aforementioned ammonia, nitrites, and nitrates, along with pH, and alkalinity. Following the individual instructions for each strip, they are simple to use. One quick dip, and about 30 seconds later they're ready to compare to the color grid label on the test strip container. This is a great way to really track your pond's current situation and more importantly, get ahead of any problems before they start to show up physically.

Here's a quick summary of what the strips measure and why they're such a great asset to your pond management program:

Ammonia--As we noted in an earlier report, ammonia is considered a toxic chemical and results from the decomposing of fish waste, uneaten fish food and decaying plants, among other things. Ammonia is potentially hazardous to fish and plants. Too much of it causes fish to have rapid gill movements, gasp at the surface and rub against underwater objects due to skin irritation. A rise in pH when ammonia is present can increase its toxicity. Measured ammonia levels that are at or above 0.25ppm are considered dangerous. Keep in mind as well that ammonia levels need to be checked before and for the first few weeks of introducing fish into the pond to ensure their safety.

Nitrites--As a byproduct of ammonia, nitrites are less toxic than their predecessor, but they still pose some risks when high levels are detected. Excess nitrites can be

dangerous to fish, causing them to become listless, deprived of oxygen and discolored. The ideal nitrite level is zero, and anything above 0.5ppm is considered stressful. Anything above 3ppm is considered toxic.

pH--We haven't talked about pH yet, but it's no less important to a healthy pond. You probably remember pH from...you guessed it...science class! I'm not really that excited about it, but it was a good spot to use an exclamation point. Anyway, pH is measured on a scale of 0 to 14. 7 is considered neutral, below 7 is acidic, above 7 is alkaline. Water that is too alkaline can cause fish respiratory troubles and discoloration, inhibit the growth of plants, and increase the toxicity of ammonia. Water that is too acidic can cause fish to gasp at the surface for air and lower their resistance to disease.

At either extreme, fish and plants can't survive. It's probably good to make note of the fact that new ponds tend to be too alkaline. In some cases this is because lime from concrete can leak into the pond. Excess algae growth can also cause high pH. In contrast, fish waste will tend to make the water more acidic as it breaks down. It's important to test for pH regularly since pond water will have a tendency to acidify over time. If you make some attempts to alter the pH levels, be sure to do it gradually. Changing the pH by about 0.2pH units per day is recommended...anything more can cause stress on the fish.

Alkalinity--An adequate amount of alkalinity is good in your pond because it helps prevent sudden changes in pH levels which can cause stress to fish and plants. The pH level in your pond is constantly affected by things such as rain, evaporation, photosynthesis of plants and ground water seepage into the pond. Buffers such as carbonates and bicarbonates help to absorb excess acids introduced into the water. Test readings that run from 120 to 180ppm indicated an acceptable alkaline level.

Nitrates--As we talked about in an earlier segment, nitrates are considered the good guys...the end product of an amazing transformation, and the staple food for plant growth. As great as nitrates are, you still don't want too many of them in your pond. A proper level will promote plant growth, without stimulating excessive algae development. Too much could be harmful to fish and provide the much needed resources to allow algae to thrive. An amber tint in the water may indicate high nitrate levels. Nitrate levels from zero to 40ppm are considered acceptable. If it's anything above this, be on the lookout for signs of algae breakouts and/ or green water.

Whew! I don't know about you but I'm getting brain cramps! Seriously though, all of this information is really helpful in either getting your pond back into balance, or helping you keep it there once you do.

It's really not as complicated as it all sounds either...just dip the strip, get the reading, then if necessary, follow the instructions that come with the strips to make

the necessary corrections to get things back into balance. It's really pretty easy once you work with it all a time or two.

In the next installment we'll cover the real meat of this report, and that deals with the numerous remedies that exist to rid your pond of algae once and for all, and then maintain a good balanced pond thereafter. You won't want to miss this one!

I'll look forward to visiting with you again tomorrow. Until then, take care and enjoy your healthy pond!

Day #4- A Remedy in the Making

It's Day #4 of Five Days to a Healthy Pond and it's good to have you back again. Of all the installments in this series, I would rate today's topic as the "must read" of the bunch! Today, we're going to talk about the nuts and bolts of what's available to make your pond balanced again, and perhaps expose some misconceptions about some tools of the trade as well.

In recent installments, we learned that certain conditions can cause an imbalance in a pond's ecosystem. This imbalance can manifest itself in different forms, but the most notable one would be the development of excess algae and perhaps other aquatic weeds. How you deal with problems like this greatly depends on what has worked in the past, and what you're comfortable with using.

In terms of algae management, a number of options are open to you. Perhaps the safest approach of all is to manually manage your pond. By this I mean that you would want to remove excess organic material by hand if possible.

Make a point to plant or place submerged plants in strategic locations to help balance the pond. If you have an over abundance of fish, or feed too frequently, try and make some adjustments to your approach. If you can re-route runoff, try to do so. If algae does present itself in excess, manually remove it on a regular basis.

For a rule of thumb guide to stocking your pond for balance follow this recipe.

- Place two bunches of submerged (oxygenating) plants per square yard of pond surface.
- Use one medium to large water lily for each square yard of surface area or enough floating plants to cover 50 to 70% of the pond's surface in the summer months.
- For fish, allow two inches of fish (length) for each square foot of pond surface in a pond 18 to 24 inches deep, or one koi for each 25 square feet of the pond surface. Plan ahead for their eventual size and rate of growth.



All in all, there's a good bit of work and planning that goes into the manual process, but the payoff is pretty darned good. If the pond is of manageable size, the manual approach can be useful. This, of course, doesn't guarantee that problems won't come up, but nevertheless, you're well on your way to a much better managed pond.

In light of the fact that issues can still come up that can threaten your pond, chemical, mechanical and natural products are all on the market and readily

available. If you've visited my web site, or taken the time to read through much of this report, you've probably guessed that I'm not a big fan of chemical controls.

In my experience, the most likely remedy for algae that most people have used would be a chemical based algaecide. These are quite common and come in a variety of names and brands. In many formulations, copper sulfate is used. Algaecides must be administered with care and certain precautions.

As the name implies, the chemicals will in theory, kill the algae by destroying the thin wall cells of the plant while leaving the more robust plants unharmed. The problem is that if algaecides are overused they can restrict the growth of aquatic plants and possibly harm fish and other aquatic wildlife.

Another real issue that I have with chemicals is that they only address a symptom of the problem, not the problem itself. Algaecides don't reduce the amount of nitrogen in the pond. They in fact, can lead to an increase in organic materials if the dead algae is allowed to remain in the water!

Using an algaecide on a long term basis is similar to you or I taking a pain pill for a brain tumor. The problem goes away in the short term, but there will be bigger issues to deal with later if we don't get to the root of the problem today.

Are there instances when chemicals may be of help? Well, with algae I would say not often...unless for one reason or another, you need an extremely quick short term fix to the appearance of the pond. Chemicals will, in most cases, work quickly to kill the algae. You'll still want to remove as much of the dead plants as you can to avoid even more buildup of organic wastes in the pond.



With other aquatic weeds such as duck weed, chemicals and surface skimming may be your only options if things progress too far. Duck weed is an extremely durable and aggressive plant. Like algae and all aquatic plants, it feeds off of nutrients in the pond. When these are in excess, it too has the ability to proliferate quite rapidly. It has the ability to "out feed" algae in a competitive environment, and will in many cases choke the algae out. But believe me, you'd much rather have the algae! At present, the most effective means for killing off duckweed is a product called Sonar which is very expensive.

Apart from using chemicals to rid the pond of excess algae, what else can be done? In looking back, you might recall that our main goal all along is to create a balanced ecosystem in your pond. As a byproduct of this, algae will be reduced or pretty much eliminated. Since chemicals really don't provide any "balancing" in their interaction with the pond, lets take a closer look at some mechanical and natural options that may be of help.

By the term "mechanical" I'm talking about using things such as [pumps, aerators, fountains, skimmers, or UV filters](#). I really like this approach to pond management because, again, it has a very positive payoff with very little to no risk to your pond. Ultimately, regardless of the device you use, the objective is basically the same...to filter out or trap unwanted waste particles or debris and to help increase the oxygen and water flow in the pond.

Be sure to do a little research on the various methods of filtration and choose the approach you feel most comfortable with. Always keep in mind to choose a pump and filter that are powerful enough to handle the water volume in your pond. You're much better off going a little over the required need than under it.

Also keep in mind that you'll probably need electricity to run the device(s) and they will likely require some pretty regular cleanings, particularly in the summer months. Although the demands of this routine may be a bit more work than other options, it remains as a very viable way to keep your pond clean and healthy without taking any drastic measures.

If going natural is the appealing approach to take for you, there are a couple alternatives to consider. These include algae eating fish, adding plants, barley straw, and biological products.

Many pond owners have used "grass carp" to help control algae blooms in larger ponds. At manageable levels, grass carp can definitely help keep algae in check, however in many cases, when conditions are primed for growth, algae feeding fish have a hard time keeping up.

Adding aquatic plants to your pond is a great, natural way to control excess nutrients and achieve balance. Using oxygenating underwater plants help fish thrive and give them some hiding places. Surface plants like lillies can make the pond much more attractive.

If there were a drawback to plants it might be that it can take quite a few of them to clear up a pond that has a high, ongoing nutrient load. Some recommendations call for nearly two-thirds of the pond's surface to be covered by aquatics to keep things balanced. Now this isn't all bad, but for many pond owners, it's a bit more coverage than they'd like to see.

Aquatic plants, are a great way to start trying to bring things into balance. If they work out and do the job completely, that's great, if not, there are always other alternatives that can be added.

To me, the use of barley straw is an interesting story. Researchers in England tested a number of different "straw" materials including wheat, linseed and oil seed. None proved very effective.

Barley straw however, releases a number of different compounds when it decomposes. It was initially reported that one of these can help to control algae populations by inhibiting future algae growth. Since there's a growing trend, (and a good one I might add) in which pond owners are becoming reluctant to use manufactured chemicals in their ponds, barley straw has been gaining some attention.



Unlike the English study, test results derived from several studies in the U.S. never provided conclusively positive results. It was found that although barley straw could inhibit growth in some types of algae, it did not have the same effect on all varieties. Of its advantages, its relative safety and low cost certainly stand out as benefits. Still, barley straw needs to be applied in directed amounts due to the fact that you're basically adding more

decaying vegetation to the pond to inhibit the algae.

If you decide to try barley straw, be sure to use only enough to attempt to control the algae problem. Using more than is necessary will only add to your problems down the road. Also be sure to use only dried straw and not barley hay or fresh barley. The introduction of these two substances actually releases nitrogen and phosphorus into the water and promotes more algae growth.

One other natural alternative to algae control that is gaining acceptance today is biological enzymes. Enzymes are not necessarily new to the market place, as they've been around for some time.

In the past, the knock against them was that they often gave spotty or inconsistent results. Over the years however, the particular formulations for the enzymes have been improved, and along with that, new dispersal methods have also been developed that helped to overcome some of the earlier shortcomings.

I personally became involved with the use of enzyme controls for algae about a year ago. Like a lot of pond owners, I had gotten to the point where I had tried about everything short of using chemicals to get rid of some algae blooms in a couple of ponds. A friend of mine had recommended a product called Healthy Ponds, which appeared a little bit different than most of the biologicals I had looked at in the past.

Most notably, the fact that [Healthy Ponds](#) used a dispenser mechanism to distribute the enzymes appealed to me. I knew from earlier research that just dumping a biological in a pond didn't really work all that well. Usually you could control algae in spots with this approach, but it certainly didn't take care of the whole pond. I decided to give the [Healthy Ponds](#) product a try and turned out to be very happy and impressed with the results.

Remember the e-mail where we covered the use of the [test strips](#) to measure certain elements in the pond? As recommended, I used the strips before the application and throughout the trial with HP and found that within a couple of weeks, those elements which were once borderline trouble spots, began to go in the opposite direction.

The chemical balance in the pond was actually changing for the better! As an end result, I did see a remarkable decrease in the amount of algae in the ponds. Over time, the appearance of the pond continued to improve. I guess you could say after this experience, I had become a believer in enzyme controls.



Here's a couple of pros and cons when considering biological products. First off, their greatest benefits are their safety and effectiveness. Since they feed on the same nutrient base as algae and plants, they help control excessive organic development in the pond...they're not powerful enough to eradicate it entirely (and you wouldn't want to do that anyway), but they are certainly more aggressive feeders than algae, and it's in that way that they help keep it in check.

Unlike chemicals, which simply "mask" the problem, the enzymes come in from a completely different direction. They get right to the source of the problem in order to fix it.

Another benefit to the enzyme approach is that they work very well with other types of controls such as pumps, fountains and aerators. Not only do they benefit from the increased flow which helps their distribution, they also tend to thrive in a richer oxygen environment which aeration provides.

Applying the product to the pond couldn't be any safer or easier. The dispensers, regardless of the size, come pre-loaded with enzymes, you just need to place them in the pond to get things started. Every 30 days or so, you simply replace or recharge the dispenser and you're good to go again.

As far as cons go, well there aren't many. Unlike chemicals, which can work very quickly, enzymes may take up to several weeks to several months before they show any dramatic results in a pond's ecosystem. In most cases, you'll see some pretty significant changes within 30 days, but a lot depends on how severe the problem is.

Although they are not expensive when compared to other types of controls, or the long term repair and maintenance costs associated with a pond, enzymes are certainly more expensive than barley straw. Still, in my own experience, the benefits of using enzymes have far outweighed any costs associated with using them.

When you use enzymes there's a couple of important things to keep in mind. First, be sure to get an accurate estimate on your pond size and use an adequate amount

of product to achieved the desired result. Under dosing with enzymes should be avoided if you really want to see some positive outcome for your efforts.

Also, regular and routine "recharging" is necessary. It's helpful to pick a particular day of the month and then mark that on the calendar as a "refill" day for your pond. Irregular use of the enzymes usually makes it more difficult to achieve a truly stable, and balanced state in your pond.

As you can see, there are a lot of routes to take for algae control, some of which you may have been down already. I hope in some way, the time spent here has helped give you some ideas, or maybe a little more clarity on how to create the pond you've always wanted. The main thing is to simply choose the approach that your most comfortable with using and give it a shot. Be sure to test your pond throughout the course of application and make some changes when and if they seem necessary. In the end, I'm confident you'll be happy with the results!

Before I go, let me pass along that if you have any questions after reading through this report, please feel free to e-mail me with your thoughts and opinions. I look forward to visiting with you again tomorrow, until then, thank you once again for your time and interest!

Enjoy your healthy pond!

Day #5- A Healthy Pond...You Can Do It!

Welcome to the final installment in the "5 Days to a Healthy Pond" series.

My greatest hope in going through the last five days with you, is that in some small way, this report has helped to educate you on all the resources and possibilities that exist for you to create that healthy pond once and for all.

I'm fairly certain that the number one reason you visited my web site and subscribed to this series is that you're simply not satisfied with the current state or condition of your pond. Maybe, like most people, you're dealing with an algae or duckweed problem.

Perhaps you're losing some fish to disease or some unexplained malady. I don't really know why your here, I simply know that within the last five days, you and I have covered a lot of ground, and a lot of information. Hopefully you can put it all to good use and consider it a base level introduction into pond management.

Always remember that your primary goal, in my opinion anyway, is not just to clear up the water or eliminate algae. The primary goal is to create and maintain a balanced ecosystem in your pond. How you get there is entirely up to you, but rest assured, once you do, you'll have healthier fish and plants, clearer water, and very little or no algae at all.

Be sure to use your gift of common sense, and look for products and approaches that work to effectively eliminate the base sources of excessive nutrients without compromising the overall health and quality of your pond. Water filters, pumps, aerators, skimmers, or quality [biological cleansing products](#) are all good choices, with a high degree of safety and effectiveness.

Following a plan of testing, and then treating is a preferred approach to simply trying to solve a problem blindly. This approach can really save money, and a lot of headaches in the long run.

With this in mind, be prepared with the proper tools, like [test strips](#), [pH balancers](#), etc., that can help you stay on top of your pond's chemical composition. Learn to see the signs of impending problems, well before they ever visibly present themselves or wreak havoc in your pond.

Be willing and open minded in your approach to possibly combining a number of resources to achieve a balanced state in your pond. Pond management doesn't have to be ultra costly, incredibly demanding, or a downright pain in the butt. In fact, managing your pond can and should be fun, rewarding, educational, generally straightforward and well, pretty easy if you do it right!

The bottom line to all this is that achieving a healthy pond is well within your reach. Dedicate yourself to the cause, follow through on your plan or strategy for your pond, and know that you can make it all happen!

Thank you once again for joining me for "5 Days to a Healthy Pond" series. Please know that I wish you all the best in your efforts regarding your pond. If you get the opportunity, feel free to write and share your experiences as you go along, I'd love to hear from you, or I'm happy to offer help and advice if I can be of service. And above all else...be sure to...enjoy YOUR HEALTHY POND!

Update 1/05/2009

It's been five years since the Five Days To A Healthy Pond Report went online and during that time, I've had the pleasure of receiving hundreds of emails thanking me for the content. I've also had a great many additional questions regarding pond care and through these, I've learned a lot about what pond owners want and need in terms of information about managing their pond.

I'm happy to report that after a great deal of review I've taken many of those questions and put them in a format where I can better explain, in depth and detail, my thoughts on how to deal with a wide array of pond issues.

So, if you're interested, please visit this webpage to learn more about my Double Cd edition of [Pond Algae Solutions](#). There are over two hours of jam packed information regarding not only pond algae issues, but also a variety of other pond topics, again, all based on the many questions I've received from pond owners just like you over the years.

I want to finish here with a heart-felt thank you for your interest in the Five Days To A Healthy Pond Report. I sincerely hope it has been of help and assistance to you and that it leads to great improvements in your pond's health. If I can be of service or help please contact me via our website at www.pondalgaeolutions.com.

All the best,



Pond Algae Solutions

Pond Management & Product References

Confused with pond management today? You're not alone! With all of the possible options available to pond owners today, it can be a daunting task trying to decide which method of pond management or what tools will work the best to suit your needs. Nearly every option has certain pro's and con's associated with them, and some work better than others for specific applications. Let's try to sort a few of these out together.

Aeration

Aeration, in the simplest terms, represents the action of pumping or adding "air" to the water system. You can do this by use of fountains on the surface, or underwater diffusers which are placed at the bottom of the pond. Aeration is a very healthy and cost effective addition to help with overall water quality and pond health.

It should be noted that in most ponds, and in particular those that are deeper than 5 feet on average, benefit much more from submerged, bottom aeration, rather than a surface type of fountain. In shallow ponds, a fountain will usually serve as the best option.

Pros - Aeration is one of the most beneficial things you can do for your pond. Increasing oxygen levels helps fish and plants and if you use natural enzymes for cleansing, it will help them perform their task in a quicker and more vibrant fashion. It can also help to control algae outbreaks on its own and improve circulation throughout the pond.

Aeration is a very safe method of pond management and can help to minimize or eliminate chemical usage in your pond.

Aeration equipment is very simple to operate and usually can run without any problems for long periods of time without any maintenance. Operating costs are affordable

Aeration can be used in any size of pond, but is particularly useful in large ponds from 10,000 gallons up to several acres in size.

Cons - Aeration devices usually require electricity to operate the pump. (A windmill generated aeration system is available for remote locations)

Like any mechanical equipment, repairs and part replacement will be needed at some point.

Initial start up costs are involved, but they are not as expensive as most fountain units. There is a minimal cost for operation.

Bottom aeration is not as effective in shallow ponds

[To learn more about our recommendations on aeration kits please click this link.](#)

Algaecides

Algaecides, as the name implies, are designed to directly kill algae, usually on contact. The most commonly used algaecides contain some degree of copper sulphate. Common trade names include Cutrine and K-Tea.

A new algaecide has recently been introduced to the marketplace which does not contain copper. It has several advantages over the copper based versions since it can be used in conjunction with other natural treatments. It's reported that there's no residual effects from it, and it's also safe for fish and aquatic plants when used as directed.

Pros - Algaecides kill algae on contact making them highly effective for immediate control.

Algaecides are generally cheaper than bio controls for pond management.

With new advances in algaecide formulations, the safety of non-copper based products has improved greatly, while still offering quick eradication of surface or string algae.

Cons - All algaecides, regardless of the type, are good for short term, quick improvement on appearances, but they do nothing to clean the pond, or eliminate the source of the algae in the first place.

Heavy metal based algaecides can create a toxic environment in the pond bottom after years of buildup. Also algae can develop resistance to copper based algaecides after years of use.

When over applied, copper algaecides can result in the loss of fish. The risk increases as the pond size gets smaller and more isolated.

[To learn more about our recommendations for safe algaecides please click this link.](#)

Bacteria / Enzymes

Bacteria and enzymes are natural formulations that can be added to the pond in a variety of ways. These bio treatments are without question the safest means for working to cleanse a pond.

In most cases they target excessive nutrients and organic "compost" in the pond and work to consume that, thereby cutting off the support system for algae.

Pros - Very safe and effective solution at eliminating algae outbreaks.

Will not harm fish, aquatic plants, or people, with a very high threshold of overdosing a system.

Works great with aeration for cleaning up the residual organic matter and algae outbreaks. It also can extend the life of pumps and filters, and helps reduce the cleaning tasks associated with them.

Truly targets the real reason algae breaks out in the first place, rather than topically treating a symptom (algae) of the problem

Cons - Costs a little more than traditional chemical treatments.

Takes time to work and show results. They should not be looked upon as a quick fix. Most ponds show improvement within several weeks. In some cases, long term applications are necessary where ponds are heavily infested.

For example, if a sludge or organic nutrient layer is a foot thick on the bottom of a large pond, most bio's can consume up to 5 or 6 inches of this sludge in a season's time. It may take up to two seasons to truly create a cleansed system. Yet, it's still cheaper and safer than dredging.

Needs to be applied consistently to be effective. Also can be affected by high pH and other environmental factors.

[To learn more about our recommendations for bacteria and enzyme products please click here.](#)

Barley Straw

Barley straw has long been recommended as a natural solution to algae control. Enzymes or compounds are released as the straw decomposes in the water, that can adversely affect algae growth. The best gauge for using Barley Straw is your own history. If you've had good luck with it in the past, don't mess with success!

Pros - Generally very safe and natural way to combat algae.

Normally more inexpensive than other treatment products.

Cons - Can give inconsistent results as it's not effective against all types of algae.

Straw must be removed before it decomposes in the pond, since it can add to the nutrient level if not removed.

Only dried barley straw should be used for algae control, fresh barley straw won't work well.

[To learn more about our recommendations for Barley Straw products, please click on this link.](#)

De-icing

For pond owners who live in northern climates and have fish, de-icers have become a useful tool. There are several methods for keeping the ice open in the pond. One involves using a small aerator to keep the water bubbling, and thereby reducing the chances of it freezing over. The second method involves some type of electrical heating element that can be submerged in the pond to keep the water open.

Pros - Keeps pond open for fish throughout the winter.

Aeration usually proves to me more affordable than heating for de-icing.

Cons- Must have electrical connection nearby to operate.

Fountains

Fountains not only offer an attractive touch to any size pond, they also serve a valuable purpose in helping to add aeration to the pond's surface area, which helps keep algae in check.

Fountains can be purchased in a variety of sizes that will produce any number of spray patterns. Most can work in very shallow water, with a submerged pump just below the surface nozzle.

Pros - Adds a very attractive touch to any pond.

Helps provide surface aeration in any pond, but particularly useful in shallow ponds where bottom aeration is less effective.

Generally low maintenance in ponds that are relatively clean.

Cons - Need electrical connection nearby to operate.

Fountains are often more expensive than other aeration devices.

Can require frequent cleaning in ponds with algae problems.

Filtration

In terms of mechanical means to keep your pond clean, filtration can work amazingly well in water gardens and small ponds. There are a number of options available in filters, some of which include, biological filters, mechanical, and ultra violet filters.

Biological filters use media that cultures a growth of beneficial bacteria that work to convert chemicals and pollutants into harmless substances. Mechanical filters trap algae and other particles in their filter media. UV filters actually irradiate the water as it pass through the filter channel, making the water sterile, devoid of both bad and good bacteria, viruses, and planktonic algae.

Pros - Filters do a great job of cleaning the water of particulates, as well as elements that can't be seen.

Bio filters serve to culture good types of bacteria and enzymes that make the pond more healthy.

Certain types of filters are easy to maintain and don't require a lot of maintenance.

UV filters do well to combat green water.

Cons - Most filters won't help against string algae once it's present.

UV filtration can actually kill good bacteria/enzymes as well as the bad ones. Therefore it's advised to suspend UV use for a short while after adding enzyme controls to combat algae or organic buildup.

Like all mechanical devices, certain maintenance is needed to keep filters in working order.

Mosquito Control

Over the years, a number of different chemical compounds have been developed to control mosquito outbreaks. With the emergence of west nile virus, more focus is being put on keeping them in check, particularly in urban areas.

Much research has gone into the best ways to combat mosquitos and countless universities have found that larval control offers the best defense.

This is not to say that modern CO2 traps and such are not useful, as they most certainly capture mosquitos, but most experts still prefer trying to stop mosquitos at the larval stage.

As pond owners, we have the ability to do this with products made from a very safe bacteria called BTI. BTI is safe for fish, plants and people, but when it gets ingested by larvae, it is usually 100% effective within 24 hours.

Mosquitos have a hard time breeding in water that has motion from fountains or waterfalls. BTI should be used in any areas where the water is very still, allowing for mosquitos to breed.

Pros - Very safe to use, with no residual effects. Unlike insecticides it is safe for people, fish, plants etc.

Targets mosquitos that most effective stage of their development for control purposes.

Although it can't guarantee the total elimination of mosquitos in the area, it will cut down on the potential for bites and transmission of disease.

Cons - Must be applied about every two weeks through the breeding season to control mosquitos.

Only good for use in the larval stage. Will not work against adult mosquitos, but BTI makes a good tool to use along with modern mosquito traps for more broad coverage.

[For more information on Mosquito Control please click on this link](#)