

# the **MICROBE-LIFT**<sup>®</sup> watergardener

SPECIAL  
COMPLIMENTARY  
ISSUE!

Getting the  
**Best Return**  
on **Your**  
**Investment** in

*Tranquility*



Oxygen-Deprived Fish

THE BOTTOM LINE ON SALT USE IN PONDS

Healthy Fish, the Herbal Way

KOI & FANCY GOLDFISH SHOWS  
— a wrap-up for 2008 —

**GOLDFISH  
HERPES  
VIRUS**



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# MICROBE-LIFT®



**UNMATCHED TECHNOLOGY**  
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- One company advertises "Better, Faster, Stronger Bacteria".
- Another company advertises "More Species of Bacteria".
- Another company advertises "57 + 1 Strains of Bacteria".
- Another company has a drawing of Koi with clothes pins on their noses saying, "What stinks in here ?"

Let's settle the comparisons. **NOW SEE FOR YOURSELF** what the "stink" is all about. It's about us, **Microbe-Lift/PL**, the #1 most requested beneficial bacteria by brand name, because of proven superior performance.

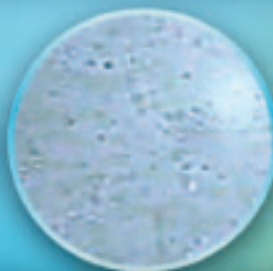
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**SEE THE  
DIFFERENCE  
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Laboratories** INC.  
Providing Aquatic Solutions Since 1976

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While it is our goal to provide an open forum to express the various opinions and ideas for water gardening, the views expressed in the articles are the opinions of the article's authors and not necessarily the views of Ecological Laboratories, Inc.

# Featured



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## editor's letter



### about the editor

Carolyn is the Consumer Relations Manager of Ecological Laboratories, Inc. and liaison to koi and water garden clubs in the U.S.A. and Canada. A retired social worker and long-time hobbyist, Carolyn has authored many articles for well-known magazines on all phases of the art of pond keeping and has twice been awarded "Koi Person of the Year". She has been a regular columnist for *Water Gardening Magazine*, writes the Q&A column for *MacArthur Water Gardens*, Boca Raton, FL, and is the Editor for *Mid-Atlantic Koi Club Magazine*. In her spare time, she is enjoying her new Florida home and 4,000+ gallon pond.

Our name is **Ecological Laboratories, Inc.** In keeping with our promise to be *ecologically vigilant* we will do our part to protect the environment for future generations. In the spring of 2006, we published our first magazine, offering you timely information to make pond keeping and fish keeping more enjoyable. With this issue, we are taking it one step further — we want to save your tax dollars by not having to recycle the magazines after you've read them. We will save a tree or two in the making of the magazines, by publishing only one hard-copy annually. This is the first "*virtual MICROBE-LIFT WATERGARDENER magazine*" and I'd love to hear what you think of it.

In this year, **Ecological Laboratories, Inc.** has expanded our pond and aquarium lines to offer you year-round fish keeping at its best. For those of you with aquariums, fresh water or salt, reef or planted, tanks with half-water that houses turtles and fish, or any other combination of aquaria, we have the biological products for your needs. If your baby koi are under 3" and you'd feel better bringing them indoors for the winter, our aquarium products **MICROBE-LIFT®/ Special Blend** and **MICROBE-LIFT®/Nite Out II** will cycle the tank quickly, keeping the water clean for your babies. I have friends that move their turtles indoors for winter, as well as entire ponds full of koi, to basement ponds. The same trusted **MICROBE-LIFT®** products will assure your pets a safe winter, wherever they over-winter this year. And if you always wanted to try your hand at a Nano-ReefTank, now is the perfect opportunity! Or, you could move to Southern Florida where our winters are negligible and just continue as you were!

For this issue, I've chosen a number of articles that will help you prepare for this fall and winter, for the safety of your fish and enjoyment of your pond. Did you know that goldfish also have a herpes virus disease, similar to KHV? Do you know how to salt your pond this fall to protect your fish? Do you know where to find a reputable pond installer when you need one??? *Now you will!* My gratitude to the photographers and journalists who have so willingly donated their time that you might enjoy this magazine. See you in the spring! Don't forget, we're here all winter if you run into any questions you want answered by the experts.

Your Editor,

*Carolyn Weise*

Carolyn Weise



PHOTOS BY CAROLYN WEISE



# Getting the Best Return on Your Investment in

by Mark Krupka

# Tranquility

AS THE TECHNICAL DIRECTOR FOR ECOLOGICAL LABORATORIES, INC., I typically write articles pertaining to technical issues like nitrification, water changes, water testing, etc. However, in the industry I also wear another hat — as the President of the National Association of Pond Professionals. As such, I try to keep abreast of all developments in and factors affecting the water feature industry.

One of the factors that are critical to the industry, as with any other product or service, is the level of customer satisfaction with a live water feature once installed. To ensure satisfaction, it is necessary to first have a well thought out design. After that it is necessary to have: 1) an installer who knows what he is doing; 2) use of quality hard goods, i.e. pumps, liners, filters, skimmers, etc. in the construction; and, 3) water treatments that will keep the water clear and reduce maintenance.

One of the jobs of an industry trade association is to provide a means of seeing to it that there is a way for people to be sure that they are meeting these requirements for a water feature with which they will be happy. In order to do this, the NAPP has developed training and certification programs for installers, as well as product specific certification programs that have been developed by the individual manufacturers. Most people wouldn't have a major plumbing job performed by someone who is not a licensed plumber. A water feature can be a significant investment. Why would someone have it installed by anyone other than a certified installer?

Even a good installation will fail if inferior quality hard goods are used. To reduce the potential for this happening, the NAPP is working on a product certification program that will test products, and certify that they meet the specified parameters for a given piece of equipment. For example, if a pump states on the package that it can pump at a certain rate against a given elevation, then the tests

MICROBE-LIFT® SOY-BASED CLEANER & MICROBE-LIFT® LARGE FOUNTAIN CLEAR

*continued*



**MARK J. KRUPKA**  
ECOLOGICAL LABORATORIES, INC.  
VP/Technical Director

Mark received his Bachelor's Degree in Microbiology in 1975 and completed graduate work in Marine Microbiology and Biochemical Engineering at Rutgers University. His experience includes over 26 years performing pilot and full-scale studies to assess the treatability of organic waste streams, lagoons, ponds, and fish farms. Mark has extensive experience in the design, operation, and control of biological systems as well as the function of microbes in natural aquatic environments. He recently organized and oversaw the successful remediation operations with MICROBE-LIFT bacteria products in the Xiba River, China.

Mark has published numerous articles and technical papers on environmental microbiology, aquatic ecosystems, pond ecosystems, biological wastewater treatment processes, strain selection, bioaugmentation and bioremediation.





From Left to Right: ERIC REINHARD, Drs' Foster & Smith; SHERRY LOUDERMILK, NAPP, Executive Administrator; VALERIE STEELE, Savio Engineering, President; LUCINDA VELA-WICK, Jungle Labs; GARY JONES, Mars Fishcare; MARK KRUPKA, Ecological Laboratories, Inc., VP & Technical Director; MARK MUNLEY, Firestone Building Products, Vice President; RANDY STEWART, Unit Liner.

will assure that the pump does this. Combining installation by a certified installer using certified components significantly increases the odds that a good result will be achieved.

If the NAPP does all that we can to increase the odds of everyone being happy with a water feature, there are still more things that we are doing to assure the growth and success of the water feature industry. That is in the area of regulatory monitoring and input. For example, the EPA recently had a public comment period for response to the Water Sense program they were developing. In the proposed program, builders and developers would be banned from integrating a water feature into a WaterSmart home. It is also feared that once accepted at this level, this type of restriction



could eventually be promulgated into law, restricting people from enjoying the benefits of a water feature on their property.

While most people who would consider a water feature are environmentally conscious, as I am, this is little more than a "for show" policy that would make it look like they were doing this in the best interests of conserving water. Realistically, less than 0.1% of water is used in water features in this country. Most major cities lose as much as 10% of their water in leaky water

*continued*

*"I would recommend  
MICROBE-LIFT® PRODUCTS to  
everyone with a WATER FEATURE...  
In fact, I do." — BOB*

Don Weeby's filter system & pond below.



PHOTOS BY CAROLYN WEISE





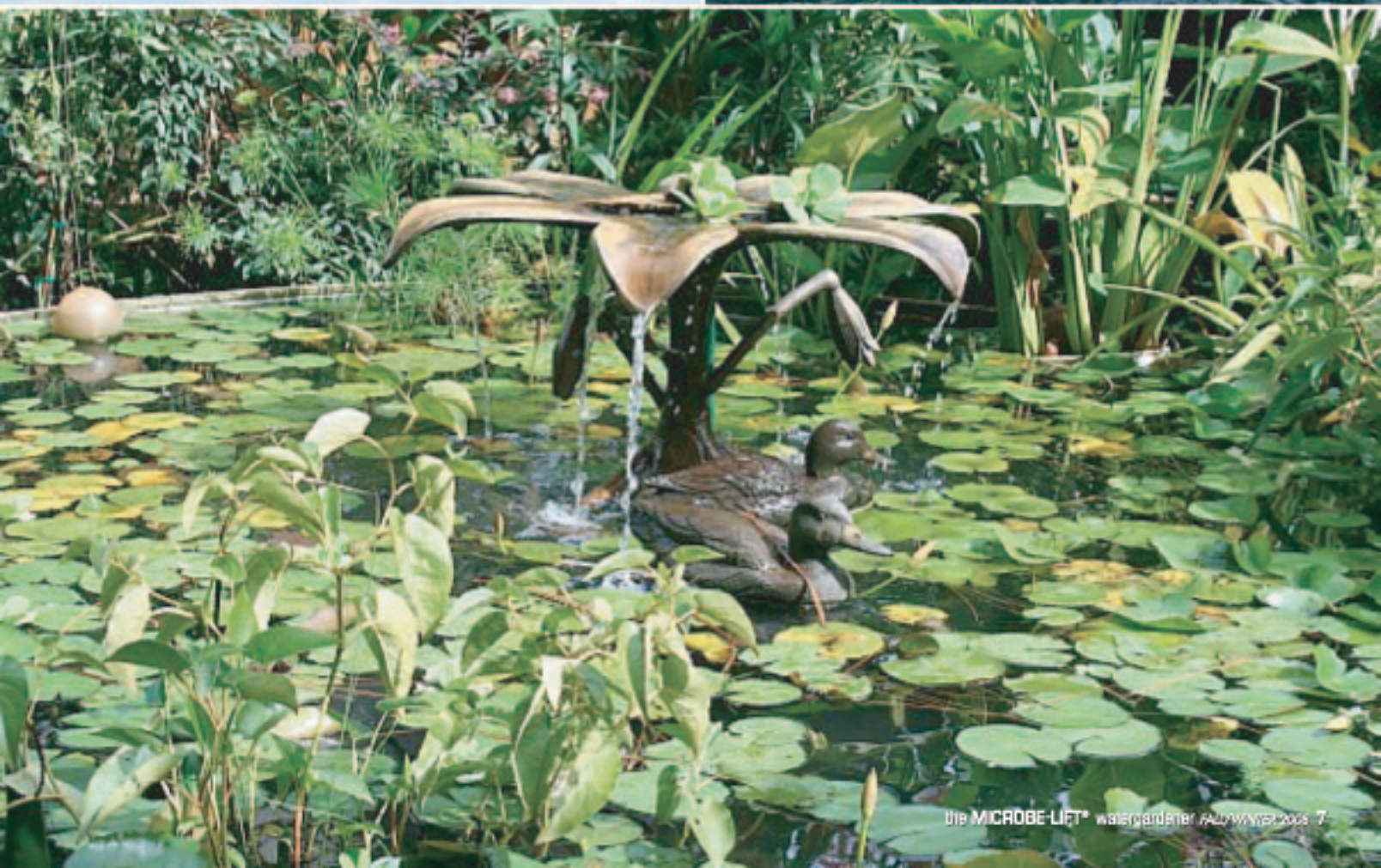
PHOTOS by CAROLYN WEISE



Top Left & Right: Some of Steve Haight's magnificent ponds.  
Bottom: Fred Lieb's water garden pond with its uniquely soothing fountain.

mains. If you take an average large city that uses upwards of 300 million gallons of water per day (MGD) and they lose 10% of that, in one year they would lose over 1 billion gallons. That is many times more than the water feature industry uses in a year. And that would be only one large town. There are thousands across the U.S. that fall into this category.

If you want to help your industry, try to make sure that you use a NAPP certified installer (available now), NAPP certified components (products will be certified over the next few years), and NAPP certified water treatments (available over the next few years.) To find a certified NAPP installer, go to <http://www.nationalpondpro.com/>.





# GOLD FISH

## HERPES VIRUS

by Peter J. Ponzio



PETER PONZIO

Peter is a retired financial executive living with his wife in Illinois. He has been in the goldfish hobby for 40 years and entered koi in 1988. He has been affiliated with the Northern Midwest ZNA for 3 years, Midwest Pond & Koi Society for 15 years, and Mid-Atlantic Koi Club 10 years. He is the Secretary of Northern Midwest ZNA and was Co-Chairman of their show in 2004 and has been director of the Midwest Pond & Koi society. He has been a goldfish judge for 12 years and led a committee which wrote the standards on judging goldfish in the US, which were adopted by the GFSA in 1995. He has served in numerous stations of the GFSA and written articles on goldfish. His articles continue to appear in the MPKS, Louisville Koi and Goldfish Society, Northwest Koi & Goldfish Society, the Goldfish Report and MAXC Magazine. In addition, Peter is presently a candidate judge in the AKCA program.

BY NOW, MOST KOI AND GOLDFISH hobbyists around the world are familiar with KHV, or koi herpes virus. The disease is a form of herpes virus which attacks koi and carp-related species, both in the wild and on domesticated fish farms and game preserves. Mortality rates for this disease are as high as ninety percent in affected populations, and signs of the disease include: fish gasping at the surface for air, irregular or erratic swimming and flashing and discoloration of the gills.

As a result of the outbreak of this disease, most experienced koi keepers now provide an extended quarantine period before introducing new fish into their ponds, as well as providing for raised water temperatures (from seventy-five to eighty degrees Fahrenheit) when introducing fish to quarantine. The increased water temperatures usually cause the disease to manifest in fish stock; lower temperatures may mask or stall the onset of disease. Improved testing services can also identify the disease in affected fish.

According to recent reports issued from CEFAS (Center for Environment, Fisheries and Aquaculture Science) [www.cefas.co.uk](http://www.cefas.co.uk), goldfish herpes virus was identified as early as 1996 in the U.K., although it was often diagnosed as different diseases. The following quotation, taken from a CEFAS information poster, outlines the identification and incidence of the disease:

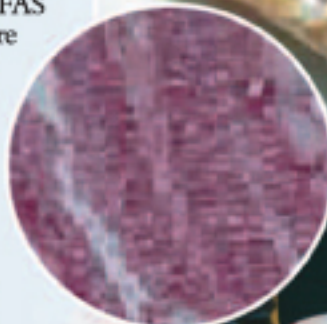
Cyprinid herpesvirus II (CyHV-2) has been described under other names such as Goldfish herpesvirus (GHV) and Herpesviral Haematopoietic Necrosis virus (HHNV). The first recorded outbreak was in the Aichi prefecture, Japan in 1992 (7). Since then, further outbreaks have been reported in Taiwan 1999 (1), U.S.A. 1997, 2002, 2003 and 2004 and Australia 2003 (8).

The CyHV-2 virus was first suspected and later confirmed in the UK in 2002 in connected retail outlets. Further outbreaks occurred in 2003, 2004 and 2005 in some of these outlets and also in the holding and distribution centre. These outbreaks resulted in low-level mortalities, peaking at approximately 20%. However, further outbreaks were confirmed in unconnected hobbyists ponds in England and Wales in 2005 and 2006 with higher mortality rates.

Analysis of archive fixed-tissue has identified CyHV-2 in samples from a site in England as long ago as 1996.



A healthy goldfish.



Generalized fusion of secondary gill lamellae with necrosis and sloughing of epithelial cells (from CEFAS poster on GHV).



MICROBE-LIFT™ LEGACY KOI & GOLDFISH SINKING FOOD  
MICROBE-LIFT™ ENHANCE





The presence of Goldfish Herpes virus requires the same type of quarantine procedures for the goldfish hobby, as are used in the koi hobby. New fish should be quarantined for a period of two to three months, and the use of heat to increase water temperatures to seventy-five to eight degree Fahrenheit is recommended. In addition, goldfish and koi should not be quarantined in the same holding facility, for reasons explained below.

Up till now, it was believed that KHV and GHV were isolated to koi and goldfish, respectively, and that cross-contamination between species could not occur. In a paper published in the *Journal of Fish Diseases*, 2008, by J Sadler, E. Marecaux, and A. Goodwin, the authors noted two separate outbreaks of KHV which were transmitted to goldfish, and that the disease was present in the host population for extended periods of time. As a result of this testing, it now appears that it may be possible that goldfish can not only contract GHV, but act as carriers for KHV. Further testing is needed to verify these results, but for now, the possibility that cross-contamination can occur is too significant to not take further precautions when quarantining goldfish and koi.

To summarize, goldfish and koi need to be quarantined



*“Our pond & fish have been THRIVING & so much more ENJOYABLE since we switched to all MICROBE-LIFT® PRODUCTS.”* — SHARON

for two to three month periods, and subjected to the heat protocols recommended for quarantining koi for KHV. In addition, since it may be possible for goldfish to act as carriers of KHV, goldfish and koi should be quarantined separately, and not in the same quarantine facility. 🌱

## H<sub>2</sub>Oxygen-Deprived Fish *by Carolyn Weise*

TOO MANY FISH DIE of no apparent reason every spring. A veterinarian friend of mine has a theory about this fish loss and I want to share it with you.

We all know that it is important to maintain a “hole in the ice” covering during winter, for gas exchange. Many of you will do this with a bubbler (aerator) and others will keep the ice open with a floating de-icer. Both are excellent in keeping a hole open for the gas exchange while your fish are dormant in winter.

What you may not know is that both will create a condition of vertical water flow that draws the water (and oxygen) from

surrounding areas in the pond. Unless a fish is lucky enough to be “sleeping” right below one of these gizmos, he is likely to run out of oxygen before the thaw. Dr. Tepper, DVM explained the ice-cube theory, wherein ice floats and warmer water sinks. So, as a de-icer is heating the water, it is sinking and the colder water is surfacing, to be heated, and to sink down again. This cycle will draw oxygen from the cold water in outside areas, but since the up-down flow is limited, none will be replaced. Likewise, the bubbler will create a column of bubbles to the surface, drawing from surrounding areas. This is not a problem until ice is covering the rest of the pond. At that time, no more oxygen is entering the water through

surface gas exchange, anywhere but right above the bubbler.

What’s the answer? You can use the de-icer or the bubbler, but should be mindful of placement. Place the device directly over where your fish will be

during their dormancy. If you have a large amount of fish that can’t all fit in one deeper area, then you will need to set up a gentle horizontal water flow to carry the oxygen throughout the pond. 🌱



MICROBE-LIFT®  
AUTUMN/WINTER PREP



Salt is one of the safest treatments for the hobbyist to use & least harmful to bacteria in the filter.

# THE BOTTOM LINE ON SALT USE IN PONDS

by Carolyn Weise



**NOTE:** Salt is a chemical and overdose is possible if not used with care. Salt should be used in moderation as these are fresh water fish—not salt water or brackish—water fish. Using salt all year may serve to promote salt resistant parasites. If salt is being used to kill parasites, do a scraping to identify parasites before adding ANY chemical to your pond.

**NOTE:** Salt should not be added to a pond when zeolite is in use! Salt should not be added to any water with AmmoLock or other ammonia binding agents!!! Salt will release the ammonia back into the water and can result in damaged gills or fish kill.

**NOTE:** Salt does not evaporate. When using, it's important to have a way to remove the salt from the pond. It can't be discharged onto the garden, so a purge line directly to the sewer or another appropriate receptacle should be planned beforehand.

MICROBE-LIFT® POND SALT CRYSTALS & MICROBE-LIFT® THERAPEUTIC SALT FOR QUARANTINE TANKS



SALT IS USED AS A PARASITE PREVENTION and treatment, primarily spring and fall, or if symptoms are noticed during the summer months. Symptoms include: flashing, jumping, gasping for air, reddened fins, lesions, erratic swimming, fungal-looking infections, malnutrition, excessive slime coat and deaths.

The recommended dosage for salt is 0.3%. At this solution most emerging parasites will be killed. However, many plants in the pond will also suffer and die at this level so it is advisable to remove all plants, wherever possible, before adding salt to the pond. In ponds where it is not possible to remove the plants or to lower the water below the level of the plants for the duration of treatment, it is recommended the salt level not exceed 0.1%. (At 0.3% this would be 2.5 lbs. of non-iodized salt per hundred gallons of water.) It should be administered in small, dissolved increments until reaching the 0.3% level, over a 3 day period. A salinometer is a very handy instrument when using salt.

For free-swimming and external parasites, 2-3 days would be sufficient to kill the populations. For parasites such as ICH, which is a ciliated protozoan that encysts under the epidermis of the fish and cannot be eliminated until free-swimming, the time frame for salt use must be extended to allow the life-cycle to process over 5+ week period, depending upon the water temperature. (It is roughly 2-5

days in warmer temperatures but can be up to and beyond 5 weeks in cold temperatures.)

*Salt is one of the safest treatments for the hobbyist to use and least harmful to bacteria in the filter.*

Salt is also used as a dip before adding a new fish to the pond. Dips are stronger solutions, up to 0.6%. When doing a dip, mix salt and water thoroughly until all salt is dissolved. Then add the fish, watching until the fish starts to turn over on its side. Quickly remove the fish from the salt dip and place into fresh clean water. It should be parasite free at that salt level by the end of the dip. **Caution: Never leave fish when in a dip solution. Fish left unattended in a dip will die.**

- Salt is used to increase the slime coat at times of stress.
- Salt regulates osmotic balance and reduces stress.
- **USE NON-IODIZED SALT.** Always use Non-Iodized table salt, kosher salt or sea salt in the pond to protect beneficial bacteria.
- Certain types of water softener salt contain yellow prussic acid (YPS), an anti-caking agent, which is toxic to fish. Always read the label first.
- Warning: salt left in the pond all winter can raise the freezing point in your pond, thereby allowing lower temperatures (not good for fish!) without freezing. 🌱

*“THANK YOU for the newsletter & touching base. A sick fish is something new & trying something new for the first time is SCARY. I cannot say enough things about the MICROBE-LIFT® PRODUCTS.” — VICKIE*



# WHEN AUTUMN LEAVES BEGIN TO FALL...

AS THE TREES CHANGE COLOR, and leaves begin to drop, it really looks like fall. In New England, this is a grand event when the leaves transition from green to orange, red, and yellow. The hills are filled with a riot of color. Reflections across a lake are romantic, nostalgic, breathtaking... and sad, somehow, because this signals the end of summer. Days are shorter, nights a little longer, and there's a slight chill in the air. In a few short weeks the trees will be bare and any leaves remaining will be brown. This is a striking contrast to the pristine white of birch tree trunks and deep green needles of the evergreen pines. The earth has cleansed herself once again and is preparing for a winter blanket of snow. Ooh, the smell of pine and rich soil among the rotting leaves, what a beautiful scent. Even the air seems clearer, lighter, not as many pollutants, easier to breathe. Fall comes too soon...

It's time to take out the winter clothes and put away the summer things that won't be needed until next year. It's time to shut the windows, clean them for a good view of our gardens and ponds. We look out upon our beautiful pond, wishing the summer would stay a little while longer. What about the fish? Will they be alright outside this winter? Do I need to take the pump out of the pond? Should I leave the filter running? A friend has an indoor basement pond and carries his fish in for the winter, out for the summer. With the plants all defoliated in the pond, they have no protective cover. I worry about predators seeing them now. There is a cat next door that insists on sitting at the pond's edge, watching the fish. Is this a problem?

For all the things we benefit by onset of colder weather, such as children return to school and less danger of someone falling into the pond or pulling a nasty prank that can harm the fish — and we don't need to mow the lawn anymore — there are things we need to do now that are not done in summer. First, we need to prepare the pond and fish for winter. The pond has to be as clean as it can be, which might entail

*Reprinted with permission of [www.123Ponds.com](http://www.123Ponds.com)*

a large water change and filter cleaning. We won't be feeding the fish much longer, and even now feed less than a few weeks ago, so the water stays cleaner. Those dead and dying annual plants in the pond need to be removed now. Leaves of perennials also have to be cut off when they turn brown. The tall grasses can wait until spring to be trimmed. The large net has to be stretched across the pond to collect leaves. We don't want leaves in the pond through the winter to provide a habitat for bad bugs that infect our fish next spring. No, we have to keep the leaves and debris out of the pond, as much as possible. We want to add Microbe-Lift/Autumn Winter Prep. The water soluble pre-measured packets will hurry the breakdown of any leaf particles that make it through the net. The jar of cold weather bacteria will tide us over till spring. Even bacteria have a metabolism that slows down in colder temperatures.

Let's do some water tests, and document the results, to keep good records. In spring, we will be more prepared if we can pick up a diary and know what's happening with the pond. This is a great time to start recording. Make sure, if winter comes sooner this year that you've prepared for an opening in the ice, for gas exchange. If you have too many fish, this is the ideal time to find new homes for some, before winter presents us with occasions for oxygen deprivation. Less is more. As sure as spring follows winter and day follows night, a time to relax is right around the corner. 🍂



MICROBELIFT®/PL

*“I have to PRAISE YOU for  
this wonderful product. I have used it for 3 years...  
Using MICROBE-LIFT®/PL  
from spring to fall has kept my pond & filter  
in PERFECT CONDITION...”*

— CAROL D., TORONTO



# THE Winter POND

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of [www.123Ponds.com](http://www.123Ponds.com)

*"I want to say how happy I am with  
MICROBE-LIFT®/BARLEY STRAW PELLETS+.  
I have a client who is telling me he has  
NEVER seen his pond SO CLEAN."*

— VERNE G.  
Canadian Retailer & Active Hobbyist

ASSUMING YOU LIVE IN A NORTHERN CLIMATE where temperatures plunge below freezing in winter, which is most of the country, your pond will eventually freeze. Not that the entire pond freezes, maybe just the top layer. On Long Island, NY, for instance, we had a frost line of 18", which means the thickest the ice will ever get is 18". This used to be wonderful for ice-skating when I was a kid. I never gave any thought to what might be living, in dormancy, below the ice back then. But, since there is an entire ecosystem contained in a single drop of pond water, so there must be lots of life below the ice. In biology class, we were given an assignment to examine a drop of pond water under the microscope. It was literally awe inspiring watching paramecia and amoebas swimming around. Right there, I was hooked and didn't know it. Many years later, I was still fascinated by the small things that lived in the water.

In winter, as temperatures drop precipitously, or rise and fall, I wonder how these microscopic fauna survive. And then, I look at my fish. My fish have a metabolism that slows down as the temperature drops. They do not hibernate, simply slip into a sort of suspended animation when it is really cold, but swimming again on warmer days as the sun hits the water.

Winter is never simply a series of cold, freezing days. It is a time of fluctuating temperatures, bare limbed trees, and alternating sunshine and clouds. One day it may be snow and hail, but the next, everything is thawing nicely. Yes, our ponds' living things will live by adapting to the changeable climate. For survival, most living forms will settle lower into the pond, toward the bottom, where our fish may sleep. They don't try to eat our fish. Our fish aren't looking for food either. Everything in there is doing its best to survive. They know instinctively how to do this. The pond plants will be dormant, retracted into the corms, bulbs and fleshy roots beneath the surface, away from icy winds. Metabolisms are slowed down for all pond "things". Your pond is almost asleep, but not quite. A little ray of sunshine will bring them back to a more animated form.

It is this rest period that is necessary for many of these creatures and plants. It is required for bloom, for reproduction in many cases. Your fish will live twice as long for having had the cold-season rest period. If they don't freeze to death, if the pond doesn't freeze solid, to the bottom, all inhabitants should be just fine. Yes, the winter pond is truly a good thing. 🌱



MICROBE-LIFT®  
BARLEY STRAW PELLETS+



# Healthy Fish, the Herbal Way

by Carolyn Weise

“The product sells itself”  
says the staff at the stores! — KAREN E.

WHAT DO YOU DO if you see any signs of **Bacterial Disease**, such as: *bacterial dropsy, fungus, milky skin, fin and tail rot, ulcers, bulging eyes, raised scales and mouth rot*? There has been an upswing of natural remedies and health stores across the nation, and with good reason: They tend to work for many people. Sure, there are no doctors quitting the medical profession, but it's comforting to know there are choices. If your fish were showing any of the above mentioned symptoms, would you rather treat them with *medicines or herbs*? Perhaps you'd consider treating with herbs first, in case you've never experienced herbal remedies before. If there were an herbal water conditioner which acted as an immune-enhancing stimulant, reducing bacterial infections in fish, with *no risk* of building up any resistance to future applications... I'd try it! Most of the time we're guessing as to the actual cause of the symptoms anyway. So instead of complaining about medications that “don't work” (maybe because we are misusing them to treat our wronged diagnosis?!) doesn't it make good sense to use an *herbal stimulant*? Fish are cold-blooded animals, so even herbal treatments will be more effective in warmer water temperatures. Well, this all-natural expellant is available to give your pond fish a chemical-free aquatic environment! This herbal water conditioner is called **MICROBE-LIFT®/SABBACTISUN™**.

And then, what if you need to treat for **Parasitic Infestation**, such as: *white spots, Costia, Flukes (gill and/or skin), Trichodina, Oodinium or Chilodonella*? These are the silent killers in every pond. The good news is there is *another herbal water conditioner* which is effective against *parasitic* problems: **MICROBE-LIFT®/PARAZORYNE™** restores the fish's natural balance. It is *not* a disinfectant and is harmless to all nitrifying filter bacteria. Nor is it a biocide. It won't harm aquatic plants! It is also not “overkill” like when I used to use Potassium Permanganate in my pond. There is no residual buildup in the pond and no toxicity. *These products are completely biodegradable and environmentally friendly!* And, did I mention, they will not discolor the water?! They won't! They won't harm certain species of fish that may be more sensitive to chemical additives, such as the infamous “canaries of the pond”... the Orfes.

As a “normal” koi pond owner in NY, I've had various health problems in my former pond, which I couldn't actually diagnose with any real degree of accuracy. It was *extremely* difficult to catch the fish to scrape and do microscopy checks. This usually meant I had to drain down the pond to about one foot from the bottom. My pond was six feet deep, so that was a considerable amount of water being wasted. And the construction and design of that pond didn't really allow me to use a seine net. There were just too many obstacles along the sides to maneuver effectively. This was a beautiful pond and not given to predators easily, but like all “naturalistic” water gardens, catching fish is another story. Even a very sick fish is a good jumper and quick swimmer if he knows you are trying to catch him. I've also found that—if you do get lucky enough to net one—*catching* fish in a larger pond meant *lifting* heavy, large fish! I don't really have the strength. I am feeding and filtering my pond so that the fish can grow to their full potential: 36” or more!

Of course there are always parasites in EVERY pond. They

are indigenous to ponds. It is unreasonable to expect a pond to be devoid of parasites. With an intact slime coat and healthy immune system, however, fish are made to withstand a certain amount of parasites in the pond, and *not* succumb to infection.

The people I sought solutions from had only the information I provided in order to decide what method of treatment to recommend. As a rule, I didn't have enough information (because I couldn't catch the fish or I didn't know what I was looking at under the microscope.) And, because I'm human, I've almost always, unfortunately, chosen the overkill method. I treated with two or three doses of Potassium Permanganate. I did it because I value my fish... I didn't realize this overkill can be overly-stressful on the fish as well.

I know what my fish will be treated with this year: *herbal water conditioners!* I'm *not* going to wait for a “final diagnosis” which may never come. And I'm *not* going to put all my trust in Mother Nature, either. There *IS* something that can be

done: Treating with **MICROBE-LIFT®/SABBACTISUN™** generally involves six days, at 70°F+ (if no damaged skin is evident on the fish) but, in serious cases, can be continued until symptoms disappear. Ulcers generally respond, changing from red to light pink or white, within 5-20 days, depending upon severity and water temperature. It's safe to dose the pond daily. **MICROBE-LIFT®/SABBACTISUN™** can be used for the regeneration of missing tissue and may be treated every other day until skin has healed, depending upon water temperature and circumstances. Since fish are cold blooded animals, their immune systems are controlled by the temperature around them. The products are not effective below 50°F. We recommend at least 60°F for koi and goldfish and 70°F+ for the healing of wounds. Treatment can be used between 50-60°F, but it will take longer to heal.

**MICROBE-LIFT®/PARAZORYNE™** can be used for six days at 70°F+; treat for about 10 days at 60°F degrees; and, at 50-59°F degrees, at least 14 days.

I've saved the best news for last: **MICROBE-LIFT®/SABBACTISUN™** and **PARAZORYNE™** will be available in the spring of 2009!



MICROBE-LIFT® PARAZORYNE™ Regular & Concentrated  
MICROBE-LIFT® SABBACTISUN™ Regular & Concentrated



# Koi & Fancy Goldfish Shows

≈ a wrap-up for 2008 ≈ by Carolyn Weise



You can close your eyes and picture yourself in another land. Then, open them and follow the winding trails through exotic gardens, the koi pond (with alligators, Jesus lizards, night herons, and lots of other life forms not human!) it is a real feast for the senses. I prefer to shop for koi bargains and orchids in my spare time, but the real fun is talking with newcomers to the pond hobby.

March took me to Orlando, FL, also in driving distance, albeit another long drive. Orlando has become one of the fastest growing koi shows on the east coast in recent years. No fancy goldfish at this show either, but an amazing array of koi, koi art, and all things koi. This show being large, I had an accomplice—Duffy! He was an invaluable help to me in setting up and breaking down the booth, talking to customers, friends, and newbies. The weather didn't cooperate this year as well as in the past—it was freezing, windy, awful! I thought I was back in NY! I wasn't dressed properly but found a pair of sneaker socks at the gift shop (a real saving grace). Last year, I sat with a filtration vendor at this show and purchased my new filter. This year, I just took a lot of photos and handed out goodies to people who came by the booth.

*continued*

*"I don't just  
love your products —  
I WORSHIP THEM!  
They are the ONLY thing  
that goes into my pond!"*

— BRUCE H.  
Devoted MICROBE-LIFT® Consumer

The year 2008 began with a koi show at the very beautiful Morikami Japanese Gardens and Museum, Delray Beach, FL, in February. The Tropical Koi Club doesn't hold a fancy goldfish competition (yet?) but goes all-out for koi! Coinciding with a museum vendor show, outdoors, an orchid show and sale, and traditional Japanese events, the sights and sounds at this koi show are unlike any other.



CAROLYN WEISE

ECOLOGICAL LABORATORIES, INC.  
Consumer Relations Manager  
THE MICROBE-LIFT® WATERGARDENER  
Editor

Summer goes entirely too quickly in most parts of the country! This summer has been filled with customer calls, emails, conferences, meetings, writing articles for pond clubs, answering questions about Microbe-Lift products, visiting ponds and lakes, talking to homeowners, cleaning up the environment ... and lots of koi and fancy goldfish shows. "Life is not a spectator sport." At least, mine certainly isn't. Ecological Laboratories, Inc. keeps me hopping, balancing my work with my home, family, koi and my two dogs. Our new **MICROBE-LIFT® Aquarium Line** has skyrocketed, as predicted. Everyday approximately 20 new stores order and stock **MICROBE-LIFT® Aquarium** products. (That's about 7,000 per year!) Working out of the offices in our Cape Coral, FL factory, I see first-hand the efforts and coordination of at least fifty employees in preparing and shipping each order. That's on top of the handful responsible for packaging the various sized containers with the **MICROBE-LIFT®** unique blend of bacteria species, growing the bacteria in these containers, nurturing it until ready to give to you. In the end, a simple quart of **MICROBE-LIFT®/PL** may be all you see. But what I see is the work involved, the care and concern that go into every bottle, every statement on the label, the dosage rates, and the government approvals, the guarantee of satisfaction ... before it can be put onto a shelf.

Yes, I'm very proud to be a part of an upstanding company like Ecological Laboratories, Inc.! I appreciate the callers who find it difficult to diagnose and treat their ponds. Our customers, the end users, are the ones who prove, day after day, that our bacteria are the best. We go "by the book" and our customers are our biggest priority.



PHOTOS BY CAROLYN WEISE





*Koi entertains kids of all ages!*

Some of my many Show photos are featured to the right, from top to bottom:

The very classy awards.

A real feast for the senses were the exotic indoor gardens at the koi show at the Morikami Japanese Gardens and Museum, Delray Beach.

Among the incredible koi art was this breathtaking painting.



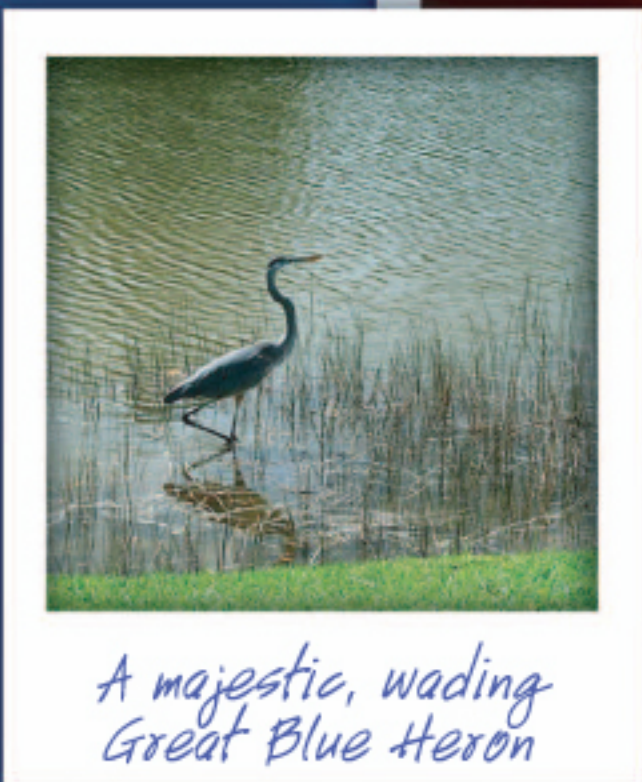
*Loved this clever license plate!*



Some magnificent orchids.

Inquisitive, visiting dogs!

A naturally-growing Staghorn Fern, with a small-flowering orchid tucked into it.



*A majestic, wading Great Blue Heron*

*"I love the MICROBE-LIFT® line of products"*

— VICTORIA





Some of the beautiful koi at the Morikami Japanese Gardens and Museum, Delray Beach, FL

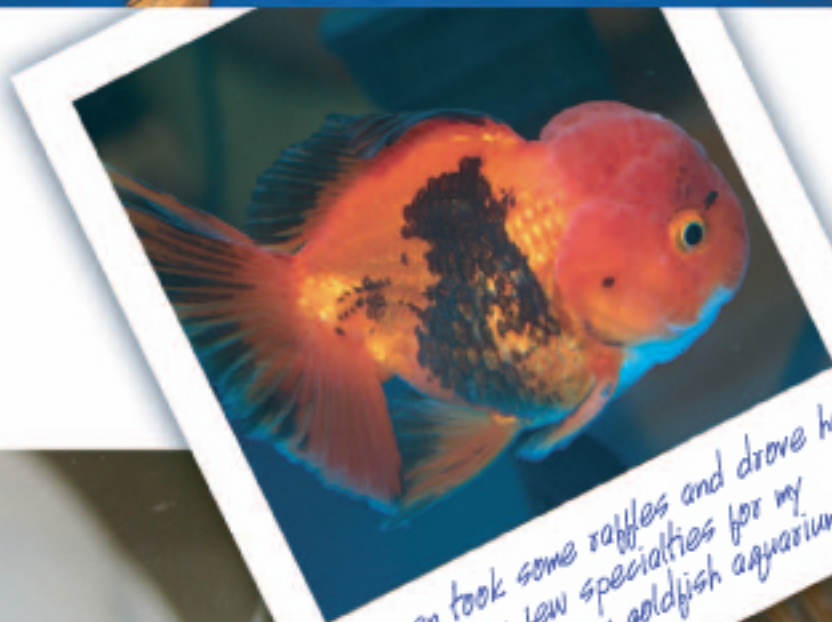


### Koi & Fancy Goldfish Shows

April, another interesting show, but not koi. This time, I drove to Miami for the Gold Coast Aquarium Society's show at Flamingo Gardens! Spending a day or weekend with fellow enthusiasts is always special. But when it is at a public garden filled with peacocks and flamingos, it's a double treat. The pond is filled with CICHLIDS of every description, not goldfish and koi. I had a very enlightening time with the aquarium club. I even took some raffles and drove home with a few specialties for my 75-gallon fancy goldfish aquarium!

May, and with it came beautiful weather, sunshine, and more friends, this time in Louisville, KY. I only spend a weekend at these shows, but the photos will last me so much longer. I took pictures of the host's koi pond and hostess' rose garden, visiting dogs (koi and goldfish people tend to travel with their other pets), and all the events. One very special and unexpected surprise came when talking to a lady at my booth. She doesn't keep koi or have a pond. But, she is very active in fossil collecting! Yes, we exchanged fossils. She gave me much more than I was able to send to her and I very much appreciate the gift. This show did have a fancy goldfish

*continued*



... I even took some raffles and drove home with a few specialties for my 75-gallon fancy goldfish aquarium!



The Louisville, KY show did have a fancy goldfish competition.

PHOTOS BY CAROLYN WEISE





*AKCA convention,  
Jacksonville, FL*

competition. Had I been able to drive here (too far!) I could have entered my "Tiger" in this one. Maybe next time...

The piece de resistance was the AKCA seminar in Jacksonville, FL. This was longer than a weekend, included a beach party on Friday evening, Banquet dinner Saturday, and amazing Pond Tour Sunday. I got there Thursday, but the River Tour had been cancelled... bummer. Next year's AKCA seminar will be in San Diego, CA, and guess who's been asked to lead one of the seminars??? Yes... and I am looking forward to it very much!

See what you missed by not going?! Come on down and join the fun! *ja.*



MICROBE-LIFT®  
NITE-OUT II

MICROBE-LIFT®  
AQUA XTREME



*"I just wanted to let you know that the  
MICROBE-LIFT® NITE-OUT II &  
MICROBE-LIFT® AQUA XTREME  
are working great!*

*'0' Ammonia & Nitrite,  
pH & Alkalinity 'rock steady' at 8.0 & 107.4.  
After a month of horrible weather extremes,  
these two products performed beautifully!"*

— JUDY L.



*... the Orlando, FL show had  
an amazing array of koi...*





# Independent Retailers...

*"We have carried, used & recommended you gotta love 'em!*

*MICROBE-LIFT® PRODUCTS to our customers*

*for years! We don't sell any products that we haven't tested ourselves & we were really pleased with*

*THE (MICROBE-LIFT) RESULTS we experienced."*

— ANNE, FL Retailer

In today's economy, it's the little guys that have to work hardest to make a living. You won't find the same energy level or interest in helping at a big box store like Home Depot or Lowes that you will at your local family-owned nursery. Now, what does it take to manage a nursery? I was very surprised to find they have to "dress" the store for every holiday and

season, like my local florist shop. I am also very pleased by the effects. They are like bees in a hive putting together everything they think you need for your pond and garden. But so do the big box stores. The difference is that by the second week of the season, the local retailer KNOWS what you want and will change their inventory. They have a "feel" for their customers and want to be prepared for your needs without the extra large facility with a variety of things you "might" need... They target your needs and meet them. Oh, and they can talk to you about their products or refer you in the right direction should you have product questions they can't immediately answer. Did you ever ask Home Depot about one of their products? I usually get a run-around, don't know about you. That is, if I find a helper in the first place. Nope, we need to applaud the hard-working local guy who works for US! 🌱



Local Retailers proudly display MICROBE-LIFT signage.



# FALL ARCHIVAL RESOURCES

[www.microbelift.com/htmls/video.php](http://www.microbelift.com/htmls/video.php)

## FALL/WINTER ISSUES:

- PLANT FORUM – OVERWINTERING LILIES  
by Greg Speichert – FALL/WINTER 2006
- CLOSING THE POND  
by Carolyn Weise – FALL/WINTER 2006
- PLANT FORUM – WINTER AND ALGAE  
by Carolyn Weise – FALL/WINTER 2007
- WINTERIZING 101  
by Bob Passovoy – FALL/WINTER 2007
- OVER-WINTERING GOLDFISH  
by Peter Ponzio – FALL/WINTER 2007

## WATER QUALITY ISSUES:

- SECRETS OF CLEAR WATER  
by Dr. Myron Kebus – FALL/WINTER 2006
- NITROGEN, PART II  
by Mark Krupka – FALL/WINTER 2006
- TO XIBA AND BEYOND...  
by Mark Krupka – FALL/WINTER 2007

## POND/FISH ISSUES:

- THE IMPORTANCE OF VITAMIN C  
by Phil Kemp – FALL/WINTER 2006
- KICK IT UP A NOTCH!  
by Max Hammond, NAPP – FALL/WINTER 2006
- INTRODUCTION TO KOI LAB  
by Vicki Vaughan – FALL/WINTER 2006
- THE AKCA KOI HEALTH ADVISOR PROGRAM  
by Bryan Bateman – FALL/WINTER 2007
- TREATING FISH & NOT KILLING FILTERS?  
by Carolyn Weise – FALL/WINTER 2007
- WHAT DOES IT COST TO BUILD  
A PROPER KOI POND?  
by Tom Burton – FALL/WINTER 2007

## ITEMS OF INTEREST:

- KOI FARM FALL HARVEST  
by Carolyn Weise – FALL/WINTER 2006
- MICROBE-LIFT DEALER INTERVIEW  
w/Bob Rieser, The Frog Bog – FALL/WINTER 2006
- CONVENTIONAL WISDOM... OR SAFETY?  
by Carolyn Weise – FALL/WINTER 2007
- I'M A PONDER!  
by Bob Passovoy – FALL/WINTER 2006



*“I changed 25% of the water yesterday, added MICROBE-LIFT® BARLEY STRAW CONCENTRATED EXTRACT, & this morning, my pond is the clearest it has been for some time!”* —RAEJEAN



MICROBE-LIFT®  
BARLEY STRAW  
CONCENTRATED  
EXTRACT PLUS PLANT

*“We swear by your products... I have been buying MICROBE-LIFT® by the gallons, for myself & pond friends... My pond looks GREAT, CRYSTAL CLEAR! I am a walking billboard ... great stuff!”* — LISA



MICROBE-LIFT®  
FLOCCULANT PLUS

*“My dealer ‘pushes’ all your products & I can see why! I bought MICROBE-LIFT® FLOCCULENT PLUS, used it in my pond & it immediately became CRYSTAL CLEAR, like a mountain stream. I’m ecstatic!”* — CAPE COD CONSUMER

*“I’ve used another competitor’s product for years... had a massive algae bloom, then the water temperature dropped back to the upper 50’s... I added MICROBE-LIFT® ALGAWAY 5.4 at around 9:30pm... & by 6pm the next day, the algae WAS GONE! Now, 2 weeks later, my pond is still crystal clear, never looked so good!”* — JANETTE, NJ



MICROBE-LIFT®  
ALGAWAY 5.4



# MICROBE-LIFT®

visit us at  
[www.microbelift.com](http://www.microbelift.com)  
to find out more about  
our earth-friendly  
products for ponds,  
fountains, &  
birdbaths

Ecological Laboratories' product-driven website puts real solutions at your fingertips. Enjoy browsing in our compelling nature-inspired web environment that is easy to navigate. You'll quickly find the relevant information you need within just a few mouse clicks.

## Our new website [www.Microbelift.com](http://www.Microbelift.com) features:

- Complete resource center on ALL MICROBE-LIFT products and FAQ's.
- Interactive "What Product Should I Use" section, simplifying the maintenance of water gardens.
- An Informative DVD presentation on pond products.
- A Calendar of National KOI and Water Garden CONSUMER Events that we attend.
- Nationwide MICROBE-LIFT Store Locator.
- Downloadable catalogs and archived issues of our MICROBE-LIFT Watergardener Magazine.



Providing Aquatic Solutions Since 1976

**Ecological Laboratories INC**

PO Box 184  
Malverne, NY 11565

CUT HERE ✂

# READER'S SURVEY

Enter drawing to **WIN \$150** toward **MICROBE-LIFT®** products!  
Drawing January 31, 2009. Winner to be notified by email.

ENTER TO  
WIN

1. How long have you been interested or involved in ponds and water gardens?  
a) Brand new b) 1-5 years c) Over 5 years (circle one)
2. Do you currently maintain a pond or water garden?  Yes  No
3. Would you like to receive the monthly MICROBE-LIFT e-newsletter, which you may unsubscribe at any time?  Yes, please  No, thank you
4. What size is/was your largest pond or water garden?  
Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Gallons \_\_\_\_\_
5. In which of the following are you primarily interested? (check all that apply)  
 Plants  Landscaping  
 Fish  Equipment for your pond  
 Filtration  Predator Protection  
 Water features  Education about your hobby
6. Which of the following water garden oriented magazines do you read regularly?  
 Water Gardening  Pond Boss  
 Aquascapes Lifestyles  Koi USA  
 Ponds Magazine  Mid-Atlantic Koi Magazine  
 Other: \_\_\_\_\_
7. Where did you get this issue of The Microbe-Lift Watergardener magazine?  
\_\_\_\_\_
8. Which of the following is most true of your purchase of this issue of The Microbe-Lift Watergardener magazine?  
(Please select only one of the following)  
 My Microbe-Lift dealer offered it to me  Saw it advertised online.  
 A friend told me to look for it  Just happened upon it  
 My (koi or water garden) club talked about it.

Name \_\_\_\_\_ \*Email \_\_\_\_\_



**HOW TO ENTER:**  
Please print, copy  
or "paste" this survey,  
and send, fax or email  
the answers to me at:

Carolyn Weise  
Ecological Laboratories, Inc.  
2525 NE 9th Ave  
Cape Coral, FL 33909  
[carolynw@microbelift.com](mailto:carolynw@microbelift.com)  
or fax 239-573-6660

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Not offered to persons under age of 21. NOTE: Personal information not to be sold or exchanged. Your privacy is our guarantee.