

SPRING/SUMMER 2010

the MICROBE-LIFT[®] watergardener

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BEWARE:
the Aquatic Plants
"WHITE LIST"

CALCULATING
POND VOLUME

getting ready for

*Spring
Summer*

Carolyn's
Candid's

featuring: kids, frogs & t's

Salting A Pond



MICROBE-LIFT®



Amazing New Technology!
Finally a product effective against flukes and
other parasitic & bacterial diseases, NATURALLY!

**100%
Natural
Herbal
Expellants**



**Provide a Chemical-Free
Treatment Effective
Against These**

Parasitic Diseases:

- White spot (Ich)
- Flukes (gill & skin)
- Chilodonella
- Costia
- Trichodina
- Oodinium

Bacterial Diseases:

- Bacterial dropsy
- Fungus
- Milky skin
- Fin/tail rot
- Bulging eyes
- Ulcers
- Mouth rot
- Raised scales

"At Ecological Laboratories, we believe great customer service is as important as a great product! Feel free to email me at CarolynW@MicrobeLift.com and I will be glad to answer any questions to improve your ponding experience."



"Ask Carolyn"



MICROBE-LIFT
Watergardener

View Our New Water Gardening Magazine Online
Located in Our Media Section or on Our Home Page

**Ecological
Laboratories INC.**
Providing Aquatic Solutions Since 1976



www.MicrobeLift.com

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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 articles' 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* and *MacArthur Water Gardens*, and is the Editor for *Mid-Atlantic Koi Club Magazine*. In her spare time, she enjoys her Florida home and 4,000+ gallon pond.



Hello and welcome back! In this issue of the **2010 Spring/Summer MICROBE-LIFT® WATERGARDENER** we are introducing **MICROBE-LIFT®/PARAZORYNE™** and **MICROBE-LIFT®/SABBACTISUN™**—two definite scientific break-through products which promise to change how we treat parasites and bacterial diseases in our ponds. **MICROBE-LIFT®/SABBACTISUN™ has been honored with the "Product of the Year" Award for 2009: 1st Place Pond Products by Pond Trade Magazine!**

Please join me in welcoming two informative KHA's as expert writers in this issue: Mike Anger and Jerold Kyle, who is head of the AKCA KHA program. Jerold has an important message concerning the use and over-use of pond salt, which is undoubtedly going to make a lot of sense to everyone with fish in their pond. The KHA program is the *leading Koi Health research and educational site* for hobbyists and, although nonprofessional, it employs the most scientific knowledge and up-to-date information available for all its teachings. The focus of the program—not unlike **MICROBE-LIFT® Products**—is health and prevention of problems. Great minds think alike!

We are paying tribute to our **MICROBE-LIFT® Frogs**, too! These little tokens, given away at koi and trade shows, have been a favorite for several years, but will soon become collector's items. We will not be producing any more frogs when the current supply is gone. There are other tokens, but the adorable frogs will pass into history...

Ecological offers technical support and assistance to anyone who is interested in **MICROBE-LIFT® Products**, and would welcome feedback on any area of our product line. Please visit the website, check out the expanded **MICROBE-LIFT® Aquarium Product Line**, and note that we have total reef and marine care packages as well as a wide variety of freshwater and planted aquarium products... in vibrant colors! (They are color-coded to help consumers find the right product for the right application). On our website, it's simple to contact one of our Experts for answers to your individual questions/problems in any area of pond, septic, aquarium, agriculture, etc. Looking forward to talking with you!

Your Editor,

Carolyn Weise
Carolyn Weise

PHOTOS by CAROLYN WEISE



BEWARE: *the Aquatic Plants* "WHITE LIST"

by Mark Krupka

Generally, being "black listed" for anything is *not* a good thing. It would then seem that the being on a "white list" is a *good thing*. This is where some states hope to confuse people. A recent proposal to prepare a "white list" of aquatic plants that are approved for sale in the state of Texas sounds like this would simplify things, right? Get on the list and you are home free with that aquatic plant. At least that's the way I read it. What I found out later was how difficult it was to get a plant on the list. Currently, what *could* be sold would be the equivalent of aquatic weeds. Nothing anyone would want to buy and put in their water garden or water feature. It may be almost *impossible* to get many of the more exotic and attractive species on the "white list". This, despite the fact that there haven't been the kind of incidents with aquatic plants that there has been with certain invasive terrestrial plants, even though some people have had water lettuce and water hyacinths take over a small pond on occasion. There is a great deal of concern regarding how the Genus *Nymphaea* (Waterlilies) will be handled in the new legislation — the most economically important water garden plant to the entire watergardening industry.

This is another example of government



MICROBE-LIFT®/ BLOOM & GROW



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.

In the April '09 *Water Garden News*, Mark was named "one of the most influential people in the industry over the previous decade". Mark has published numerous articles and technical papers on environmental microbiology, aquatic ecosystems, pond ecosystems, biological wastewater treatment processes, strain selection, bioaugmentation and bioremediation.

continued

regulation into an area that can have a profound impact on our industry. Two years ago, we had the EPA Water Sense program that wanted to impose a ban on water features in Water Efficient homes. We are fortunate that there are people like Rolf Nelson and Jim Kennedy taking the lead on their own time to spearhead efforts that benefit the industry. Sure, they are in the industry so they are both in a position to benefit, but there are a lot of people who benefit from useful legislation and by also helping to be a deterrent in the passing of harmful legislation. I am amazed at how knowledgeable people become in the laws and regulations in their spare time.

If you are wondering what you can do as a manufacturer, distributor, retailer, contractor or hobbyist, get involved at any level you feel comfortable. Whether that means writing a letter, joining an organization like the NAPP (*National Association of Pond Professionals*) or PIJAC (*The Pet Industry Joint Advisory Council*), or forming a network of people to monitor and inform the industry of regulations that are coming down the pipe that could affect our industry... do what you can. There is strength in numbers. A lot of these agencies are bullies. They try to pick on the groups that won't push back. The EPA was very surprised with the response they got to banning water features in (water efficient) homes. One EPA representative admitted that they went after the water garden industry, even though they knew that water gardens didn't represent nearly the volume of water use as other things, like swimming pools and spas. They just figured people representing the other groups were better organized and would kick and scream more.

At least right now, the trend seems to be for ever-increasing government regulation. With this trend in mind, we all have to remain vigilant lest we become taxed and regulated out of business. For more information and details, go to the NAPP website at www.nationalpondpro.com and read the article by Rolf Nelson on page 2 of the March/April NAPP Newsletter entitled "Legislative Alert". Also, to get more involved, join the NAPP; PIJAC www.pijac.org; IA (*Irrigation Association*) www.irrigation.org; IWGS (*International Waterlily & Water Gardening Society*) www.iwgs.org; or whatever group is most appropriate for your position in the industry. 🌱

*"I love MICROBE-LIFT®.
NOTHING else goes into
my water garden. Ever.*

*Well, the fish & plants & the water
& ... but you get my point.*

*I use the integrated line from
MICROBE-LIFT® Fish Foods to
MICROBE-LIFT® /DECHLORINATOR
& I've never had any issues
(other than the neighborhood racoon).*

Keep up the good work?

*No! Keep up the fabulous work all y'all
do & know you've made my "ponding"
the JOY it's supposed to be!"*

— B. HAYES

CALCULATING POND VOLUME

by Mike Anger, Colorado

Reprinted with permission from Koi Times, Rocky Mountain Koi Club newsletter

PHOTO BY CAROLYN WEISE

**85%
of ponds visited
had stated
volumes
(by the owners)
overestimated
by 100%!**

*N*O MATTER WHAT YOUR POND INTEREST, Koi, water plants, frogs, or just the peaceful sounds of a waterfall, there is one unifying factor: WATER.

Temperature, pH, ammonia, nitrite and dissolved oxygen are key parameters to measure, water changes are important to perform, maintaining clarity to see your Koi and or plants is an ongoing task, and replacing water lost to evaporation (or leak) is a never-ending chore. No matter what, knowing the actual volume of your pond is one of the most important facts to be aware of. Despite this, many of us are not too sure what it is, or to be honest have "exaggerated" its size.

Knowing the actual volume of your pond is one of the most important facts to be aware of.

Ever visited a fellow club member's pond and discussed the number of gallons? Have you looked at its size and compared it to your own? Sure you have. Sometimes it seemed strange that their 7,000 gallon pond was smaller than your 5,500 one. Maybe it was the depth that was fooling you, or the dimensions were irregular. Maybe you thought that they were the ones stretching the truth (literally and figuratively). In a survey done over a season by Duncan Griffiths (www.koiunleashed.co.uk) 85% of the ponds visited had stated *continued*



MICROBE-LIFT®/
POND SALT CRYSTALS

Calculating Pond Volume

volumes (by the owners) overestimated by 100%! Zero were underestimated—perhaps “bigger is better” is a sort of macho thing. Make a promise to yourself and try to get an accurate assessment of your own volume.

If you start with an empty pond, you can put a volume meter at the end of your water source (such as your hose) and record the amount it takes to fill. This is easily done when you first build a pond, though *not* so easily when filled with Koi that need to be housed while you do this. An alternative method requires calculations.

For more irregular shapes, you may need to break the pond into sections, calculate each one and add them together.

If a pond is a perfect rectangle with a flat bottom, vertical sides, no slope on the bottom and no rounded corners, the equation is: $\text{length} \times \text{width} \times \text{depth (all in feet)} \times 7.48 = \text{total volume in gallons}$.

For round ponds it is:
 $\text{radius} \times \text{the radius} \times \text{the depth (again all in feet)} \times 3.142 \times 7.48$.

continued



MICHAEL ANGER

Mike Anger is Koi hobbyist in the Denver area. He has been a member of the Rocky Mountain Koi Club and a regular contributor to their newsletter as well as MAKC magazine.

As a KHA (Koi Health Advisor), he serves other hobbyists in Colorado, while caring for his own 14,000 gallon pond. Mike's interest in “volume” and “water” extends beyond Koi; professionally, he practices as a Nephrologist (kidney doctor) and is a Clinical Professor of Medicine at the University Of Colorado Denver School of Medicine.



PHOTOS BY CAROLYN WEISE





*"I tried your
(MICROBE-LIFT®) product
in our large koi ponds,
with INCREDIBLE results!
My koi are spectacular,
the water is CLEAN & I love this product.
I've been singing it's praises to everyone!
Thank you so much!
My friends think I should
do a commercial for you!"* — MARIELLEN



PHOTOS BY CAROLYN WEISE

You can utilize salt in your pond to get a fairly accurate water volume.



But what about an irregular shape? Several assumptions have to be made. If, for example, the bottom slopes from 3 feet at one end to 6 feet at the other, use an average of 4.5 feet. If the sides are sloped so that the width is 12 feet at the top and 10 feet at the bottom, you would use an average width of 11 feet. For more irregular shapes, you might need to break the pond into sections, calculate each one and add them together.

One of the problems with these estimates is that they don't take into consideration the volumes in your filters. What I suggest is to *use salt to measure volume*. Given all of its benefits, it is hard to think of reasons not to (at least occasionally) use salt in your pond. You can utilize salt in your pond to get a fairly accurate water volume. *One pound of salt in twelve gallons of water equals 1% salinity; one pound in one hundred gallons of water raises the salinity 0.12%.* We can utilize the formula: *pounds salt x 12, then divide this by % salinity change = gallons of water.* To do this accurately, you need a salinity meter.

First, estimate the volume of your pond as I have discussed above. Measure the % salinity of the pond before adding any salt (call this S1). Add one pound of salt for each 100 gallons of estimated pond volume (best done by dissolving the salt in a bucket of pond water and carefully distributing it around the pond) and allowing it to be well mixed (at least several hours, or better, waiting until the next day) and taking a second % salinity reading (call this S2). Determine the change of salinity, which is S2 minus S1. If your initial salt reading is zero, then just use S2. Multiply the pounds of salt you added by 12, and divide this by the % salinity change (divide by S2 minus S1). This result will be your pond volume in gallons. (I bet it's less than you thought).

Record this volume and use it when you need to estimate water changes or calculate medication dosages. You'll be glad you did! 🌱

getting ready for *Spring Summer*

by Carolyn Weise

the key is to **I.R.S. in Spring** (**I**NSPECT, **R**EFLECT & **S**ERVICE)

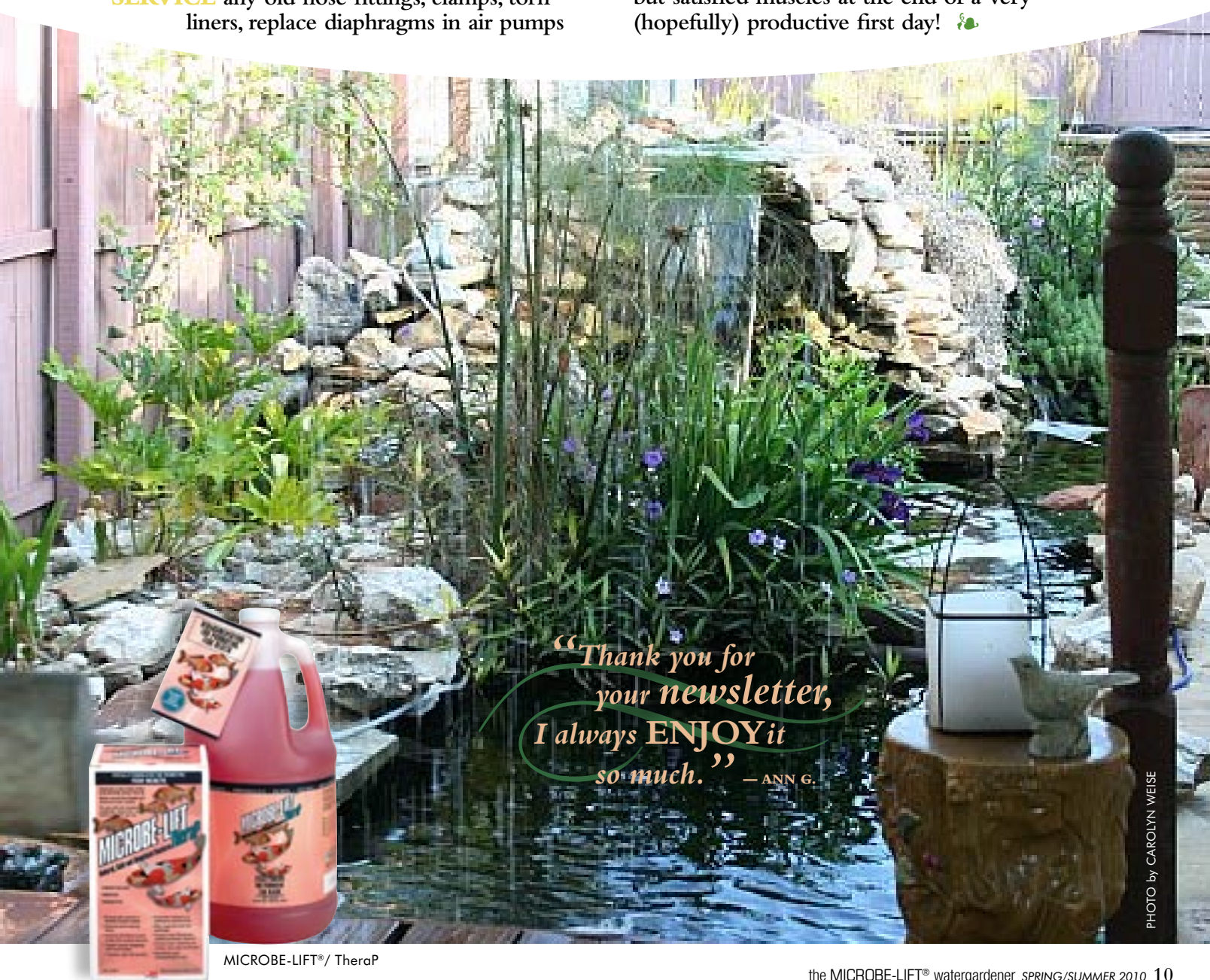
INSPECT FOR ANY LEAKS, any broken pipes, rocks that have shifted out of place and may divert water out of the pond, low areas that can allow for leakage (or runoff entering the pond during a Spring rain), and inspect each and every fish for signs of sores. Many sores cannot be seen from above the pond because they will be on the under-belly of the fish, but if you monitor the fish closely in Spring, you will be able to detect the slightest “off behavior” that tells you which fish to catch for a closer look. Don’t be too quick to add chemicals because fish will flash in Spring when they become more active due to increased levels of ammonia in the water. The nitrifying bacteria may not have caught up with it yet. Don’t treat for parasites unless you have used the ‘scrape-and-microscope’ procedure for a positive diagnosis. The first priority should be to get your beneficial bacteria back in order. The bacteria take care of the water and the water takes care of the fish. *(continued)*

REFLECT on last year's problems. Keep records so you will know when the fish spawned, when they got sick, why they got sick, and what you did to help them. Consider the "new" ideas you had for improving your filter's performance this year. Did you want to increase the size of the UV this year? Is it time to buy a new pump? Does the filter media need to be replaced with something more user-friendly? Do you want to remove the rocks from the bottom this year and add a retrofit bottom drain to keep down the amount of bottom dirt, and thus keep the water cleaner for your fish? Did you have problems with incoming plants that can be prevented by treating new plants (this year) before adding to the pond? Are you going to add a quarantine tank for new fish (or sick fish, to make treatment easier and more affordable)???

SERVICE any old hose fittings, clamps, torn liners, replace diaphragms in air pumps

and clean out lines that have been sitting idle over the winter months. Replace last year's fish food with fresh food. Old food is just asking for trouble. The nutritional value is depleted by now. Remove the winter cover, leaf nets, sandbags and whatever other protective construction has been used to protect your pond over the winter months. And *clean, clean, clean...* anything that is obvious and out of place, that should not be in the pond must come out!

Spring is the time when we *pond owners* are rested, refreshed and filled with euphoria waiting to get our hands dirty in the yard! We want to hear that comforting sound of running water and see our fish again. A little pre-workout exercise to limber up the muscles would be very helpful, but most of us won't bother with that. We'd rather soak in Epsom salts and slather the Bengay over our tired, aching but satisfied muscles at the end of a very (hopefully) productive first day! 🌱



*"Thank you for
your newsletter,
I always ENJOY it
so much."* — ANN G.

MICROBE-LIFT® / TheraP



CAROLYN WEISE

ECOLOGICAL LABORATORIES, INC.
Customer Relations Manager and
Liason to Pond & Water Garden Clubs (U.S. & Canada)

Carolyn has kept fish her entire life, starting with guppies in a bowl, progressing to breeding specialty tropicals (gold blush & marble angels), and all the way to in-ground aquaria, outside; from salt water marine, to her "wild" tanks with newts, turtles, goldfish and whatever seemed natural in a vivaquarium set-up. As an old beachcomber, water has been a constant companion and source of comfort in Carolyn's life.

After buying her first koi in 1990, life has never been the same! A mother and grandmother, a retired social worker, and, mostly, being a homeowner gave her the time and opportunity to delve into the hobby, with both feet! The first pond — a tiny preformed 4' x 6' — was given to her. The next preformed was a bit larger at 6' x 8' and, with more lawn dug out, was laid side-by-side next to the first! Then, around 1997, when she won a 20' x 30' liner at the MAKC Hofstra show, she sold her car to pay for the filters! Four years later, and many more koi, Bob BonGiorno of Suburban Water Gardens installed the coup d' grace — a 6,000 gallon, 6' deep combination koi pond and water garden with lots of trimmings.

Carolyn attended SUNY at Farmingdale, Ornamental Horticulture before transferring fields and receiving a BA and MA in the field of social work. She credits her ponds for keeping her grounded and focused during that time in her career! After retiring, she joined the staff at Ecological Laboratories, Inc. where—given a computer and a phone, installed as Customer Service Representative, trained in the amazing biological technology of Microbe-Lift®—Carolyn just let loose! And, because of her contributions over the years to *Water Gardening*, *MacArthur Water Gardens* and *Pond & Garden* publications, and because she had already been answering pond and koi questions for a number of years, Ecological sought after her as the perfect fit!

In '96, Carolyn joined the Mid-Atlantic Koi Club. In '98, after the initial outbreak of KHV on the east coast, she attended her first koi health seminar instructed by Dr. Myron Kebus at Kellenberg High School on Long Island, NY. Before moving to Florida, Carolyn held the VP position in MAKC local chapters from 1999-2006 and chaired two koi shows. She spent many hours tagging along with the Suburban Water Garden crews as they installed streams, ponds and fantastic water features on Long Island. She assisted with water quality at the Brooklyn Botanic Garden when the renovation of the Japanese Garden & Pond was completed and she documented the public ceremony, dedicating the grand opening and restocking it with new Japanese koi.

Today, Carolyn is an active member of the NRA, the Cape Coral Friends of Wildlife (CCFW) and National Association of Pond Professionals (NAPP). She's attended the Holland Koi Show and numerous Koi Health Seminars at UGA. She is editor of *The Microbe-Lift Watergardener* as well as an avid and passionate photographer, whose beautiful vision is featured within these pages. She is also a frequent contributing author and editor for MAKC magazine and is generous with her articles to other koi and water gardens, when requested.

Carolyn is proud of her new Florida home, beautifully landscaped with a formal 4,000 gallon koi pond with all the bells and whistles... and a mortgage to match! Her first koi cost \$30 in 1990 and the last cost \$2,000 in 2007... and she still hasn't found the "perfect" one yet! Carolyn is koi kichi and wants the best water for her fish.

Carolyn's Candidids

featuring: kids & frogs & I's

by Carolyn Weise

I've wanted to have a special section with photos I've taken over the years of children cuddling our ever popular MICROBE-LIFT FROGS--adorable in & around ponds & always guaranteed to bring some afternoon smiles! For several years now, our frogs have been a favorite MICROBE-LIFT give-away at Koi & Trade Shows, but we will not be producing them any more!



*"I am VERY much
a committed consumer of the
MICROBE-LIFT® products for my ponds
& have been telling anyone who has a pond question
that MICROBE-LIFT® is a
pond owners' ANSWER to water quality issues!"*

— HARV PETERSON, PRESIDENT
HEART OF TEXAS WATERGARDEN & POND SOCIETY



Here are some cute patrons toting our MICROBE-LIFT FROGS, future koi pond hobbyists & a very curious pup!



It's a bird, it's a plane...
it's SUPER FROGGIE!





One just won't do!
But don't take my word for it...
see for yourself!
Our frogs are great fun for your pond
& better for snuggles!



Ribbit Hugs!




Featured here are some of our popular MICROBE-LIFT T-SHIRTS. Supporting our earth-friendly bacterial products like PL & always good for a laugh, my favorite t-shirt reads: "Support Bacteria... It's the only culture some people have!"



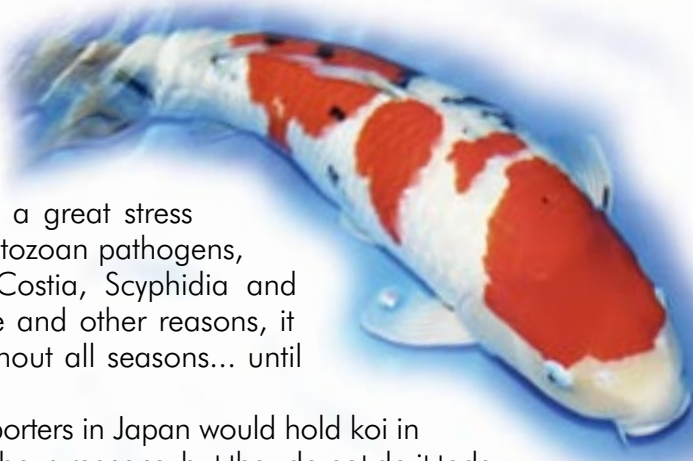
couldn't resist another great license plate!

Salting A Pond

by
Jerold Kyle, KHA
KOI HEALTH ADVISOR



dissolved salt in the water helps in the osmoregulation of the fish's body fluids while increasing the production of slime coat, protecting the skin and preventing nitrite toxicity. Useful levels are from 0.1% to 0.3%. It is a great stress reducer and is known to kill most ciliated protozoan pathogens, including: Ich, Trichodina, Chilodonella, Costia, Scyphidia and Epistylis while reducing Flukes. For these and other reasons, it was once widely used in ponds throughout all seasons... until koi keepers learned more.



I am told in the past, exporters in Japan would hold koi in heavily salted water for all the above reasons, but they do not do it today, and for good reason. While the salt *may not* kill 100% of the pathogens, it so greatly reduced them that the koi's natural immune system could often handle the little remaining. To have a 100% kill, the salt would have to be so high as to kill *everything* — including the fish! The very few remaining pathogens live and reproduce and much of the next generation is also killed by the salt... but not all. Generation after generation later, a salt resistant strain of Tricodina emerged and devastated the industry. Salt would not kill it. The term we use is "supper bugs." Salt, in time, may have the potential to *help develop* super bugs. Experience was/is a great teacher and helps us to know better.

Today, it is recommend to *not* continually salt a pond. By *not*

continued

continually salting a pond, salt becomes an easy and cheap way to help clear 8 out of the 10 top problems we have to deal with. And, by not salting, we can have a few potted water plants to beautify the setting if we choose. There are still those who salt ponds. People who take koi to koi shows may salt at 0.1% upon returning home as a stress reducer for a week. People who travel or are not home for periods of time may choose to salt but at only 0.1%. The reason being to reduce stress if a problem arises and no one is home to see it. This will help the osmoregulation, enhance the slime coat, and, should the bio-filter fail, there is a longer safety factor in case of a nitrite spike. *Less than 0.1%* is the same as not salting and a waste of time. *Much more than 0.1%* may get you accused of developing super bugs which poison the environment, especially if your overflow goes to the river and/or the seas?

Most of us have decided to *not* salt—except as temporarily needed. In the Spring, coming out of Winter when the natural immune systems of the

koi are at their lowest level, many will salt up to 0.3% for a month while the water is warming and the fishes' immune systems are developing just as a precaution for all the reasons stated in the first paragraph. After a month the salt is eliminated through regular water changes. In this way, the salt is simply therapeutic and temporary, and harmful effects are minimized. And, because we have not developed salt resistant strains, we can get better results with less application for less stress on the pond environment and less stress on us!

Salt can be good or it can be bad. It can help man's food taste better or help raise blood pressure and kill. *Too little* does no good and *too much* may do harm. *Too much* is a bad thing... just like everything else that can be good. It just depends on good sense of the application. It is all about **BEING RESPONSIBLE**. Or not! There are too many "or nots" out there who salt by dead reckoning, guessing, and/or approximating. If you will salt, **USE A TEST KIT AND MONITOR...** and use test kits for everything if you care.

Be careful, or be ashamed of yourself for only pretending to care about your koi! I know you care or you would not have read this far! Thanks for being a good koi shepherd. 🐟

*"Thank you for your
PROMPT & explicit response
& your GREAT
MICROBE-LIFT® products!!!"*
— JIM L.



JEROLD KYLE

CAMELLIA KOI CLUB, CA

Koi Health Advisor & Head of the AKCA KHA Program

A retired Business Manager looking for a hobby in retirement, Jerry joined the Camellia Koi Club in Sacramento, CA in 2000. He served two year terms as Director, V.P. and President. Upon hearing of the new KHA Project, he entered class of 2002 to learn how to build a quality pond for maximum beauty and easier care. It took one year to dig the hole by hand and continued learning through the KHA. Jerold is a hands-on, dirt-under-the-fingernails person who, upon learning about pond design and good Koi husbandry principals, was surprised by a perceived lack of knowledge by so many in the hobby. Seeing first-hand the beauty and quality of Koi produced by more experienced and advanced Koi keepers was as inspiring as seeing the opportunities missed by the average ponder was concerning. While gaining more and more knowledge through the KHA Program and its offered Continuing Education (CE) classes, he began to share that knowledge by writing short articles on what he learned and experienced, reprinted widely. His motivation: the original concept of KHA as an AKCA project, and to promote its principals to the average hobbyist—as only with knowledge may a hobbyist aspire to finer Koi. With a good base of experienced dedicated KHA behind him, AKCA has chosen Jerry as the new AKCA KHA Director to support the mission of helping the average Koi keeper and ponder get the best Koi health advice and to grow this wonderful and cherished hobby.

MICROBE-LIFT®/
THERAPEUTIC SALT FOR
QUARANTINE TANKS



Just A Fish

From time to time, people tell me, "*Lighten up, it's just a fish*"... or... "*That's a lot of money for just a fish*". They don't understand the distance traveled, time spent, or costs involved for "*just a fish*". Some of my proudest moments have come about with "*just a fish*". Many hours have passed with my only company being "*just a fish*", and not once have I felt slighted. Some of the saddest moments were brought about by "*just a fish*". In those days darkness, the gentle touch of "*just a fish*" provided comfort and purpose to overcome the day.

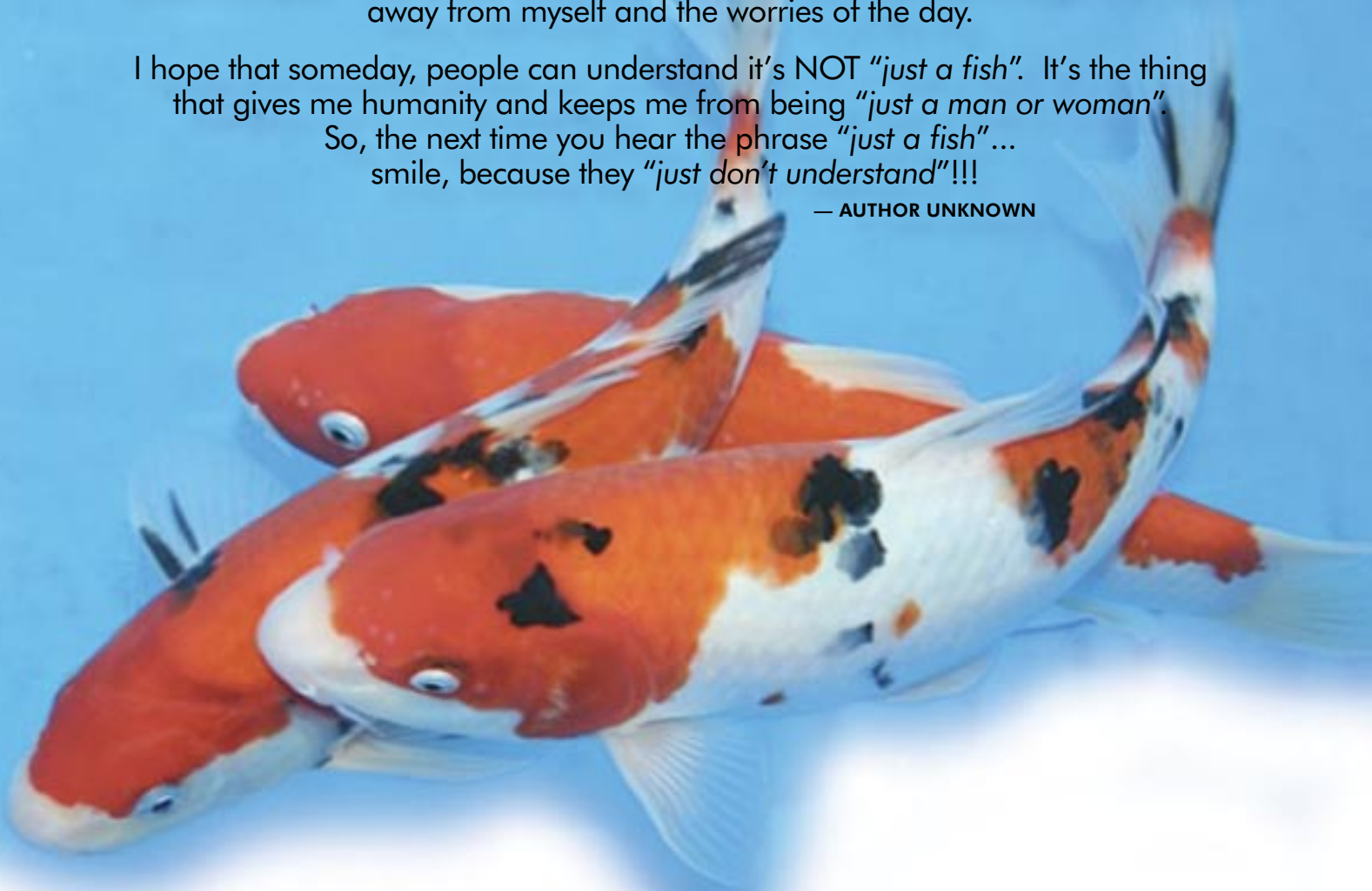
If you, too, think it's "*just a fish*", you will probably understand the phrases like "*just a fish*"; "*just a sunrise*"; or "*just a promise*". "*Just a fish*" brings into my life the very essence of friendship, trust and pure unbridled joy. "*Just a fish*" brings out the compassion and patience that makes me a better person. Because of "*just a fish*", I will rise early, take long walks and look longingly to the future.

For me and folks like me, it's NOT "*just a fish*". It's an embodiment of all the hopes and dreams of the future, the fond memories of the past, and the pure joy of the moment. "*Just a fish*" brings out what's good in me and diverts my thoughts away from myself and the worries of the day.

I hope that someday, people can understand it's NOT "*just a fish*". It's the thing that gives me humanity and keeps me from being "*just a man or woman*". So, the next time you hear the phrase "*just a fish*"... smile, because they "*just don't understand*"!!!

— AUTHOR UNKNOWN

PHOTO BY CAROLYN WEISE



TOTALLY *testimonial*

PHOTOS by LINETTA HAYWOOD



“Dear Carolyn, I shot these photos at the FRANKLIN PARK CONSERVATORY in Columbus Ohio. They were taken during the Chihuly Glass exhibit. In one photo, the koi seem to be kissing the glass ball. I hope you like the pics & are able to use them in some way.”

— LINETTA

Sadly, 1 week later, the pond had a water leak & the koi collection was lost.



MICROBE-LIFT®/ PL

*“One photo
of one part
of my pond,
& a photo
of my little
wet pets.”*



PHOTOS by CAROL D.

*“Hi! I live in Toronto.
I have had **my pond**
17 YEARS
& still have one of the
original Koi!*

*The 17 yr. old has
survived our winters
& he is just as **healthy**
NOW as he has ever been.*

**THANKS TO
MICROBE-LIFT®/PL!!!**

*This year, I must say, it has been **so easy** to maintain.*

I have an Oase filter & pump (my pond is only 1000 gals. & only 4 Koi)

*& for some reason, this year especially, it only needs cleaning once **EVERY 2 WEEKS!***

***No sludge** gathers & all the water parameters are perfect (I test weekly).*

*There are 2 **WATERFALLS**, one for the skimmer & one from the filter.*

*In essence, I do think the water quality & fish health has been
solely the result of my using MICROBE-LIFT®/PL. Thanks for
great help when needed & for a **GREAT PRODUCT.**”*

— CAROL D., TORONTO

MICROBE-LIFT®

A well-balanced Koi diet,
NATURALLY!

LEGACY



MICROBE-LIFT®/LEGACY™ is not just a fish food...
it's a complete nutritional feeding system! Contains
bacteria that produce enzymes which help break down
proteins, lipids & carbohydrates.



Contains
**Nature's
Building
Blocks**

**A SOURCE OF LIVE (VIALE),
NATURALLY OCCURRING MICROORGANISMS**
That are FDA and EU approved

"At Ecological Laboratories, we believe great customer service
is as important as a great product! Feel free to email me at
CarolynW@MicrobeLift.com and I will be glad to answer any
questions to improve your ponding experience."



"Ask Carolyn"



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Providing Aquatic Solutions Since 1976



www.MicrobeLift.com

SPRING SUMMER

ARCHIVAL RESOURCES

www.microbelift.com/htmls/video.php

PHOTO by CAROLYN WEISE

SEASONAL ISSUES

SPRING STARTUP IN A KOI POND *by Dan Phillips* - SPRING/SUMMER 2008

WAKE-UP CALL! *by Bob Passovoy* - SPRING/SUMMER 2008

OPENING THE POND - JUMP START YOUR FILTER *by Carolyn Weise* - SPRING/SUMMER 2006

WATER QUALITY ISSUES

THE GREEN WAY TO REDUCE NITRATES *by Mark Krupka* - SPRING/SUMMER 2009

HOUSEHOLD AMMONIA TO CYCLE A FILTER IN THE ABSENCE OF FISH *by Roddy Conrad* - SPRING/SUMMER 2009

BASIC WATER PARAMETER TESTING *by Dan Phillips* - SPRING/SUMMER 2009

WATER CHANGES - WHY, HOW & HOW OFTEN *by Mark Krupka* - SPRING/SUMMER 2008

TESTING YOUR POND'S WATER *by Mark Krupka* - SPRING/SUMMER 2007

PLANT FORUM - POND WEEDS (ALGAE) *by Rowena Burns* - SPRING/SUMMER 2007

OPENING THE POND - JUMP START YOUR FILTER *by Carolyn Weise* - SPRING/SUMMER 2006

WHISPER DOWN THE "TECHNICAL ALLEY" *by Mark Krupka* - SPRING/SUMMER 2006

POND CONSTRUCTION / FISH HEALTH ISSUES

STOP THE PRESS! ML/SABBACTISUN™ & ML/PARAZORYNE™ ARE HERE! - SPRING/SUMMER 2009

GUIDELINES FOR USING MICROBE-LIFT® PRODUCTS - SPRING/SUMMER 2009

A BETTER PRE-FILTER - SPRING/SUMMER 2008

ARE YOU EATING WELL? *by Carolyn Weise* - SPRING/SUMMER 2008

HEALTHY FISH, THE HERBAL WAY - SPRING/SUMMER 2008

GOLDFISH KEEPING *by Peter Ponzio* - SPRING/SUMMER 2008

PLANT FORUM - TOXIC GARDENS *by Carolyn Weise* - SPRING/SUMMER 2008

A WATER GARDEN & WHAT IT TAKES TO MAKE ONE *by Tom Burton* - SPRING/SUMMER 2007

KHA CORNER - ARE YOUR KOI HEALTHY? *by Dan Phillips* - SPRING/SUMMER 2007

COME ON IN! THE WATER'S FINE *by Betsy Kravitz* - SPRING/SUMMER 2007

GOLDFISH IN PONDS *by Peter Ponzio* - SPRING/SUMMER 2007

PROTEIN & PROTEIN QUALITY IN FISH FEEDS *by Carl D. Webster* - SPRING/SUMMER 2006

CATCHING FISH *by Tom Burton* - SPRING/SUMMER 2006

BUYING NEW KOI - THE URGENCY OF QUARANTINE - SPRING/SUMMER 2006

ADDITIONAL INTEREST ISSUES

PHOTOGRAPHS FROM THE SARASOTA POND TOUR *by Carolyn Weise* - SPRING/SUMMER 2009

NAVIGATING THE MICROBE-LIFT WEBSITE *by Carolyn Weise* - SPRING/SUMMER 2009

ML DEALER INTERVIEW *with Eddie Brock Jr. BROCK FARMS* - SPRING/SUMMER 2008

DO YOU HAVE AN AQUARIUM? *by Carolyn Weise* - SPRING/SUMMER 2007

MICROBE-LIFT IN OTHER LANDS *by Carolyn Weise* - SPRING/SUMMER 2007

ML DEALER INTERVIEW *with Bob Gogan STONEWORKS PONDS* - SPRING/SUMMER 2007

Q&A's - BEGINNERS WANT TO KNOW - SPRING/SUMMER 2006

PLANT FORUM - QUEENS OF THE POND (LILIES) *by Greg Speichert* - SPRING/SUMMER 2006

ALRIGHT, WHY SHOULD I GO TO A KOI SHOW? *by Bob Passovoy* - SPRING/SUMMER 2006



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