

FALL/WINTER 2010/11

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the MICROBE-LIFT® watergardener

the
holy grail
of fish
medication

IN THE STILL OF WINTER

KOI MEDS

we learn & change

THE INDOOR POND
(or *Holding Tank!*)

WINTER CAN BE
MESSY

**winterizing
THE POND**

& FROM THE FISHBOWL





Special Introduction for 2011

NEW Formula & REDUCED Prices
plus a 2-for-1 Special!

Save 75% over Last Year's Prices!

Ready-to-Use Concentrate
Herbal Water Conditioners

All-Natural Expellants for a
Natural Aquatic Environment!

Ecological Laboratories, Inc. has received a worldwide exclusive license to manufacture Sabbactisun™ and Parazoryne™ in the U.S. To kick off the new licensing agreement we are offering a **"Buy One, Get One Free!"**

The reduced pricing now makes the highly concentrated version economically feasible for use in all ponds not only during a disease outbreak but as a preventative in the spring and fall when fish are stressed due to seasonal changes.

These two herbal treatments are a must for every pond that contains fish!



"Ask Carolyn"

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.

SABBACTISUN

Effective Against These Bacterial Diseases

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



PARAZORYNE

Effective Against These Parasitic Diseases

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



(available in 8, 16, 32 oz and 1 gallon)

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 Located in our Media Section
 or on our Home Page



Ecological Laboratories INC

Providing Aquatic Solutions Since 1976



www.MicrobeLift.com

EDITORIAL STAFF

Michael Richter, Barry Richter, Carolyn Weise

ART & CREATIVE DESIGN

Andrea Ross Boyle

ARossBoyle Design, Inc., arboyle@optonline.net
(Original concept by Knack4design)

COLUMNISTS

Mark Krupka, Jerold Kyle, Carolyn Weise

PHOTOGRAPHY

George Ertle, Richard Wolfert, Carolyn Weise
Retouching: Andrea Ross Boyle

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P.O. Box 184, Malverne N.Y. 11565
www.microbelift.com
email: carolynw@microbelift.com

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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COVER PHOTOGRAPHS *Background*—George Ertle; *Insets*—Carolyn Weise

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.



Dear Readers & Loyal Friends!

As we head into Fall /Winter 2010/11, we are bringing you news of great interest for your ponds: Ecological Laboratories, Inc. is proud to announce *new* products for your pond and, especially, the care of your favorite fish!

This is such a busy time of year with holidays, pond closings, schools openings, leaf raking and even changing the house from spring to winter furnishings. Brrrrr! Bring out the cold-weather coats and blankets! Turn off the A/C and check the thermostats. Get the car's antifreeze and battery in good order... and in between, shop for holiday gifts. I hope you will also find time do a water change and the few chores necessary to assure a safe transition for your wet pets, too. Then, I hope you find time to relax by your pond. How about adding some holiday lighting around your pond this year to keep the view spectacular?!

Take time to browse through this season's issue and see what we offer to take the stress off both *you & your fish!* You will find helpful hints and tried-and-true ways to assure a safe winter for your pond and water garden. And, for those pond-owners on your holiday list, perhaps you might also find some creative gift-giving ideas on the following pages—or on our website—which can be purchased at a local nursery & tied with a bow at home!

We, at MICROBE-LIFT®, are here for you and wish you *all the best* going into 2011. May your new year go swimmingly... and feel free to contact me with any questions that you have, at:
carolynw@microbelift.com

Your Editor,
Carolyn Weise
Carolyn Weise



Cassie & Abby Ertle enjoying winter's wonder!

PHOTO by CAROLYN WEISE

PHOTO by GEORGE ERTLE

*We at
Microbe-Lift®
are here
for you & wish you
all the best
going into 2011!*

the holy grail of fish medication

by
Mark Krupka

PHOTO by CAROLYN WEISE

SINCE ICH (OR ICK, AS IT IS ALSO REFERRED TO) is one of the most common parasitic diseases of fish, and most—if not all—parasite treatments contain very toxic chemicals, like heavy metals, a safe natural treatment for parasitic diseases has always been *the Holy Grail of Fish Medications*. Well, as the leader in development of safe natural products, Ecological Laboratories, Inc. set out in search of the Holy Grail of fish medications. While on our search, we knew it was necessary to offer something people could use because even a parasite medication with chemicals was better than dead fish. However, last year we finally discovered the Holy Grail and it is called Parazoryne.



MICROBE-LIFT®/ PARAZORYNE™
READY-TO-USE

What makes MICROBE-LIFT®/PARAZORYNE™ different from other parasite treatments? Well, first of all it is made strictly from natural herbals and botanicals, no small difference. As a result, unlike some of the most common active ingredients in most parasite medications, the ingredients are biodegradable. After treatments with traditional parasite treatments, water changes are necessary to eliminate the medications since they are not biodegradable and you don't want the fish exposed to them longer than necessary. Even handling many of these medications can be hazardous since many are carcinogens. With MICROBE-LIFT®/PARAZORYNE™ not only are the components not harmful, they are actually

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.

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.

beneficial and will help micro-wounds which can occur at the site of parasite attachment, to heal before secondary infections can develop.

The most unique thing about the **MICROBE-LIFT®/PARAZORYNE™** is how it works. Unlike traditional parasite medications that must be applied when the parasites are the free swimming “tomite” stage, **MICROBE-LIFT®/PARAZORYNE™** drives the parasite off the host into the water where they cannot survive for very long. That is why the treatment regimen is recommended for 10 days, although most people find that the majority of parasites are driven from the fish in the first four days. **MICROBE-LIFT®/PARAZORYNE™** does this by stimulating the fish’s immune system. What could be more natural?

Traditional parasite treatments also generally require that the temperature be in a specific range for application, generally in the mid-70’s. So what do you do when you identify Ich and your pond temperature is in the upper 60s? **MICROBE-LIFT®/PARAZORYNE™** can be used at almost any temperature.

Parazoryne has been used, with excellent results in Europe for years, both in fish aquaculture systems and in ponds. Ecological Laboratories, Inc. was fortunate to acquire the exclusive marketing rights to the product for North America two years ago and recently was licensed to manufacture the product in the U.S. and extended its marketing exclusive to the world with the exception of a few companies in Europe. With a proven track record in Europe and very successful tests in the U.S. as well as terrific results experienced by consumers, **MICROBE-LIFT®/PARAZORYNE™** can be used with a very high level of confidence with respect to safety and effectiveness.

When all factors are considered — the safety, the effectiveness, the impact on the environment in your pond, the additional benefits for your fish — why would you even consider using anything else when Ecological Laboratories, Inc. has found *the Holy Grail*? 🐟



PHOTO by CAROLYN WEISE

*“Thanks
for continuing to send
YOUR NEWSLETTER.*

*At home, I’m only a gold fish gardener, but
I MUST BE DOING something right
cuz the fish are getting huge &
the redtail hawks are being well fed!*

*I work in Lawn & Garden at our local
Garden Center. We have some pond products
but NOT ENOUGH to help the serious
water gardeners in our area. Ironically,
I PURCHASE most of my products from
your local distributor! Just wanted to
drop a line to tell you how much
I appreciate & am learning from
your newsletters & years of experience.”*

in the still of winter

by Carolyn Weise

WINTER IS A TIME OF REST AND REJUVENATION IN NATURE, but a pond owner needs to remain alert to the dangers presented by freeze and thaw, predators, accidents and plumbing failures.

A small leak in the liner can empty a pond, beneath the ice, before anybody notices.

An alert pond owner can rescue fish before the ultimate disaster.

Water changes, although less frequent, are still an integral part of keeping a healthy koi pond.

Put expandable floatation devices in place on the surface to absorb the impact of expansion as the surface freezes. A (clean) pool floating chair or beach ball will work.

This is especially necessary if the pond was constructed with vertical sides.

Fish "leaning" on their sides in the coldest part of winter is not necessarily cause for alarm. However, with extended cold, they could suffer thermal stress.

Some may succumb to parasites or disease as a result of long, cold winters.

Stress—even the stress of extreme cold—works on the fish in the same way it does you or me: we catch cold or can come down with pneumonia. For the most part, the fish should do fine.

Like winter, *you* can also take some time for rest and rejuvenation! A camera is my favorite winter toy.

Take photos of your pond with the reflection of snow on overhanging boughs. There is simply nothing to compare! Bring in some of your annual pond plants this year; try to over-winter them.

Ponding can be a year-round hobby,
if we make it so.

So, dress warm, *watch out for the dangers*
and, everyone, enjoy a safe and warm winter!

Happy Winter Ponding! 🍂



Water changes, although less frequent, are still an integral part of keeping a healthy koi pond.



KOI MEDS

by
Jerold Kyle, KHA
KOI HEALTH ADVISOR

we learn & change

SOME OF US ARE OLD ENOUGH TO REMEMBER when salt was the wonder drug. Those who don't keep up with changing times may think it still is. There are still hobbyists and professional breeders who swear by salting to .5 as a safeguard. Last year, I wrote that salt less than .1% does little or no good and more than .3% may cause more harm than good. And, I said don't salt year around. I am not a vet and don't come up with this stuff on my own. I get it from my vet advisors and simply pass it on, in plain English. I first stole the idea from "Doc" Johnson's book and then had it reinforced by others with PhD written after their names. **Learn and change.** Some may not be convinced against their will, but, others are learning and changing, just as the vets are.

In my first Lab Course, the Vet Advisors discussed their preferences between Formalin and Potassium Permanganate (PP). I learned that PP was powerful and did a good job, but had to be handled carefully as too little may not do the job and only a little too much may kill, especially the younger or weaker. In my experience, I proved that by killing some fry. Perhaps that was why some of the Vets liked Formalin, as they felt, for us amateurs, it was a little more forgiving. I found that these products hit hard and blasted (the flukes?) within the first hour or two. In a dirty pond they also oxidized the fine crap floating around in suspension and consequently used up their oxidizing properties (gill burning ability?) within a few hours later. In my clear water

continued

PHOTO BY CAROLYN WEISE; SNOWFLAKE RETOUCHING BY ANDREA ROSS BOYLE



"This is the first time I received your magazine. It was an excellent read & full of some GREAT information & pictures." — JOHN



JEROLD KYLE
CAMELLIA KOI CLUB, CA
KHA & the new
AKCA KHA Director

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.

pond, that might continue to burn gills a little (lot?) longer. These meds that have the potential to do good also have the potential to do much harm. So say the Vet Advisors and so say I, since my so-called "smarts" are all borrowed or stolen from them!
I learn and change.

Some of us, who know exactly the gallons of our ponds, like the power and effectiveness of PP. We are careful and know to increase aeration to get the water churning and to pre-dissolve the product with warm water in a big bucket before adding to pond. The water turns to a reddish purple color as the PP blasts the bad guys. When the oxidizing (killing) stops as its ability or effectiveness is all used up, the water will turn a tannish color, signaling the end of the treatment. In my clean water that takes about 10-12 hours. If I reduce the dosage for a shorter duration, do I reduce the initial power to whack whatever I am after? Because the little guys can't take it, after 1.5 hrs (no more than 2 hrs.) I add Hydrogen Peroxide Solution from the local Drug Store. A quart costs under a dollar at the pharmacy. The water turns tan almost instantly and within a couple of hours, as the purple dye color is all gone from the water and gone from the rocks, I have the cleanest, clearest pond. The smaller koi are clean without being subjected to lengthy stress and burning of gills for umpteen hours. This is just one of the alternative ways we learn to change the way we handle meds to be effective and safe.
I learn and change.

continued

We need to keep abreast of changes. At the last AKCA Seminar, I saw a new product called MINNFINN. Lots of people were talking about it. Those who produce the meds we use to help our Koi are constantly improving products. I do not know what is in the stuff, but what I do know is the MINNFINN treatment works in two parts: Part One is applied to the pond water and whacks the pathogens; Then, after 1.5 - 2 hours, Part Two is added, detoxifying Part One, and thus ending the treatment as well as supposedly ending the potential gill burning and stress. I like the idea, and it is exactly the way I apply the PP. It is a way to more safely handle a hard hitting product. MINNFINN is touted to effectively hit hard and then be neutralized. Another treatment a few days later (for some things like flukes?) may be advised. The sales people said it is also safer to handle and more forgiving than other products (PP?) out there that, while effective, must be handled with great care. Safer is an improvement for the average ponder and a great way to **learn and change**.

When a Koi gets a wound, the "bad" bacteria consume the dead cells around the wound. They do not eat healthy cells... only the dead cells. The problem is the bacteria emit as a waste product—a toxin—that kills whatever cell it comes in contact with. Therefore, as it eats

a dead cell, its toxin kills the next cell so it has more food and can reproduce and on and on. KoiZYME is another relatively new product that is bacterial in nature. It is safe to handle, not caustic, does not cause undue stress, and impossible to overdose. It is simply a bottle of safe bacteria. The KoiZYME bacteria also eat the dead cells but give off a waste product that is *not* toxic and does *not* kill the next cell in line. These "good" bacteria compete with the bad bacteria. They do such a good job of it, the bad bacteria simply starve to death. We are beginning to see more of these "natural" bacterial meds.

This month, I received a notice from Carolyn Weise at Ecological Laboratories about yet another change. MICROBE-LIFT® has a new product called SABBACTISUN™ and it is an *herbal preparation*. We have gone from salt to caustic chemicals to friendly bacterial and now to herbal solutions in our ever changing quest for safe Koi meds. The information I received describes MICROBE-LIFT®/SABBACTISUN™ as: **"a unique herbal preparation which supports fish recovering from bacterial infections,**

*"I love the
MICROBE-LIFT® products
& am very impressed with
your customer service!"* —TAWANA



continued

MICROBE-LIFT® / SABBACTISUN™

with symptoms such as fin and tail rot, ulcers, bulging eyes (exophthalmia), milky skin, raised scales, mouth rot/fungus and dropsy (ascites). MICROBE-LIFT®/SABBACTISUN™ supports the natural immune system of the fish. The pathogenic bacteria which are driven off the fish will ultimately die having no host, and without risk of becoming resistant. MICROBE-LIFT®/SABBACTISUN™ helps to reduce bacterial infections as well as ulcers and wounds which often occur on koi. Regular antibiotics kill the non-resistant bacteria but do not heal ulcers. MICROBE-LIFT®/SABBACTISUN™ does not only help to drive off the pathogenic bacteria but helps to stimulate and accelerate regeneration of damaged tissue in a surprisingly short time span. An open wound or ulcer on which the bacteria have been killed by antibiotics still remains a sensitive place for reinfection and parasites, so even after an antibiotic treatment, it is important to use MICROBE-LIFT®/SABBACTISUN™ to help support the immune system and prevent reinfection." The notice goes on to say: it can be used in any pond or aquarium and is safe for all life in and around it.

MICROBE-LIFT® also has a new herbal pond additive called PARAZORYNE™, for the treatment of those parasites we find under the microscope. MICROBE-LIFT®/PARAZORYNE™ reduces parasitic infections by causing parasites to be driven off the Koi and keeping them from returning to the Koi. It does not kill parasites but the majority will die without a host.

As knowledge continues to improve, we need to do our best to keep up with it and not be afraid of change.

I have long felt there is a place in medicine for more "holistic" approaches to my personal health. Why not my Koi's health? Some say this is simply a preventative approach. In regard to my Koi, my Vet friends have taught me that preventative medicine is the best way to go. That way, I don't have to resort to dangerous, caustic, life threatening meds. Yes! Knowledge is changing and, for our Koi, it is all good as **I learn and change**. Join me in **learning and changing** as we care for our Koi. 🐡



MICROBE-LIFT® / PARAZORYNE™

**I have long felt there is a place
in medicine for more "holistic"
approaches to my personal health.
Why not my Koi's health?**

Winterizing THE POND

by Carolyn Weise

After you've checked the plumbing & liner for potential dangers, here are a few last minute considerations:

- **When winterizing your pond, it should be:** **1.** clean, clean, clean; **2.** unfrozen, and; **3.** as thermally stable as possible. The idea of spring cleaning is a popular one but a fall cleaning is a better one. All fading vegetation should be removed timely, in the fall. Any annuals need to be put into the compost before shutting down the pond for winter. When the pond is cleared of plants, it's time to vacuum the bottom, clean the filter, and do a 40% water change (using MICROBE-LIFT® /AQUA XTREME to dechlorinate if you have city water). Then, you can sink any lily pots to the bottom for the winter and cover the pond with a leaf net. I like to use a frame or floating inner tubes to keep the net held above the water so leaves that collect in it are not "in" the water. The other reason for cleaning the pond prior to winter is to remove any organic waste. As organic waste breaks down, it draws oxygen from the pond (BOD). Underneath an extended ice covering, this can result in oxygen deprivation for the fish.

continued

"I tried MICROBE-LIFT®/PL 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! My friends think I should do a commercial for you! I love your products!"





CAROLYN WEISE

ECOLOGICAL LABORATORIES, INC.
Customer Relations Manager and
Liaison 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 vivarium 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 others, 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.

- **Unfrozen** Well, that's a given. Once the water freezes completely with the fish suspended in the frozen ice, the fish will not come back to life. A pond that is deeper than your freeze line (frost line) will never completely freeze. The fish will be able to always lay dormant at the bottom in "unfrozen" water. And, since you have done the cleaning before winter arrived, they will be lucky enough to spend their torpor in clean unfrozen water. Koi can withstand temperatures down to 33°F for brief periods, but will be stressed. They will do much better at 39°F. If the water remains cold for any duration, the fish may be noted lying on their sides as a sign of the extreme stress. A deeper pond will always have less potential for winter fatality. So, a little prep-work in the fall will pay handsomely in spring. A floating de-icer can be extremely helpful to keep an opening for gas exchange.

- **Thermal Stability** Deeper ponds will be more stable. Summer or winter, we have thermal inversion, where the least extreme conditions will be at the bottom of the pond. In summer, the cooler water is at the deepest area and in winter, the warmest water is in the same place. Likewise, there is a slower fluctuation at the bottom of the pond when it is either storming or sunny overhead. If you do not have proper winter depth, make up for this with a winter cover. They can be built of PVC pipes and elbows, wrapped in heavy plastic to block freezing winds. Shape it so the snow will not sit on top and secure the base tightly to the ground. 🍂

*"I am a Koi keeper. I had just purchased your
MICROBE-LIFT®/KOI & GOLDFISH
GROWTH & ENERGY FOOD
W/COLOR ENHANCERS.*

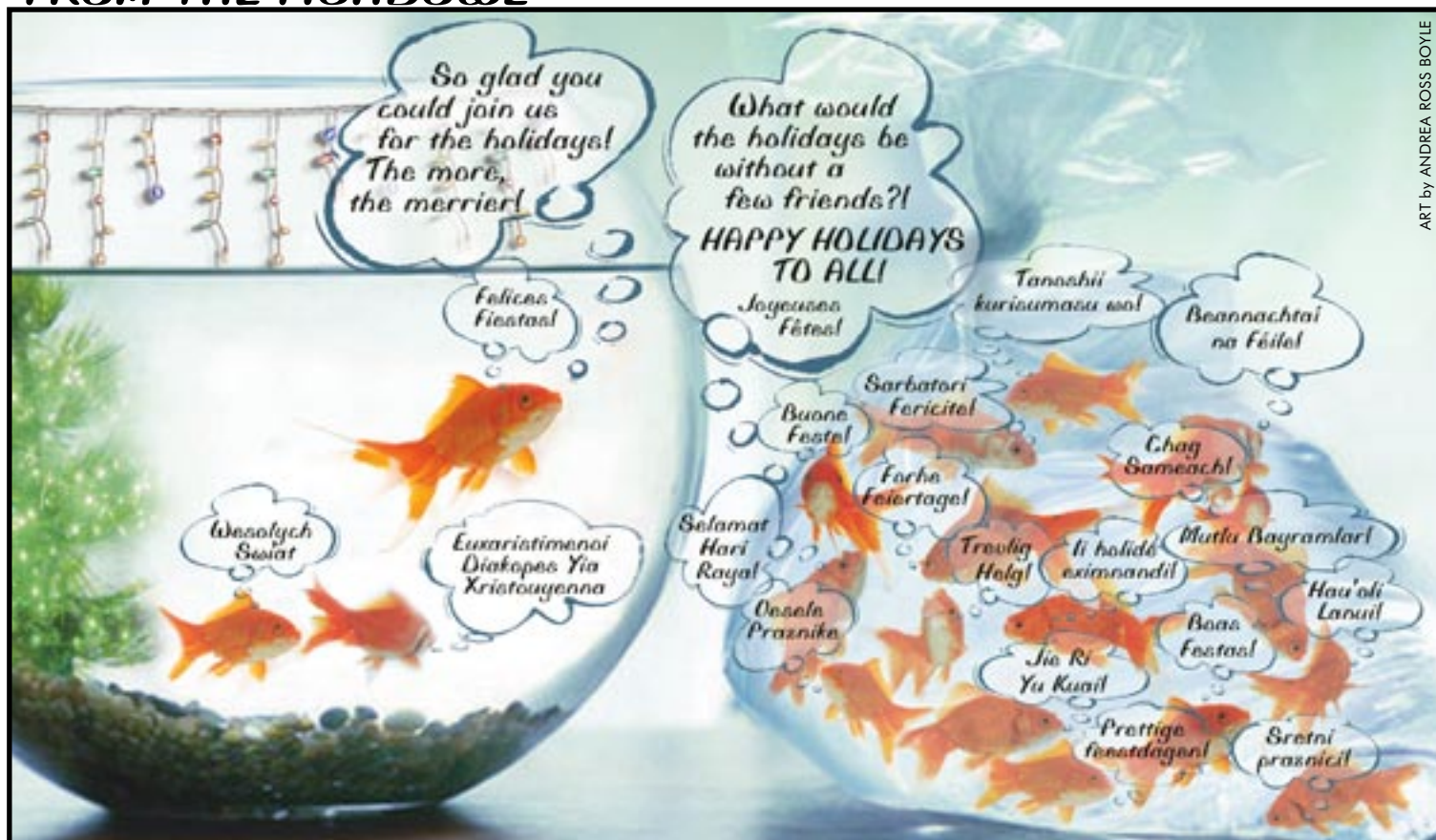
*I cannot believe the difference it has made
in the color of my Koi after only A FEW DAYS.
The colors are deeper & brighter.*

*I just wanted to let you know, as a consumer,
that your product is EXCELLENT &
I will be switching to your product line."* — MICHAEL



PHOTO by GEORGE ERTLE

FROM THE FISHBOWL



ART by ANDREA ROSS BOYLE

Happy Holidays in 20 languages! • French "Joyeuses Fêtes!" • Spanish "Felices Fiestas!" • Swedish: "Trevlig Helg!" • Italian: "Buone Feste!" • Portuguese: "Boas Festas!" • Turkish: "Mutlu Bayramlar!" • Hebrew: "Chag Sameach!" • Romanian: "Sarbatori Fericitel!" • Mandarin: "Jie Ri Yu Kuai" • German: "Forhe Feiertage" • Dutch: "Prettige feestdagen" • Hawaiian: "Hau'oli Lanui" • Polish: "Wesolych Swiat" • Gaelic: "Beannachtaí na Féile" • Japanese: "Tanoshii kurisumasu wo!" • Slovenian: "Vesele Praznike" • Indonesian: "Selamat Hari Raya!" • Croatian: "Sretni praznici!" • South African (Xhose): "li holidé eximnandi" • Greek: "Euxaristimenoi Diakopes Yia Xristouyenna"

DEMAND THE BRAND
MICROBE-LIFT®

Nitrogen Gas (N₂)
Gaseous nitrogen bubbles harmlessly to the surface where it is released to the air, which is 78% nitrogen gas

Denitrification
The reduction of nitrate in filtered aquarium anoxic zones
MICROBE-LIFT/Special Blend (already added in step #1) contains denitrifiers that function without oxygen. These select microbes can remove nitrate in the aquarium by converting it to nitrogen gas under the anoxic conditions that exist in aquarium filters and their biofilms

Nitrate (NO₃⁻)
A nutrient source for plants and algae

Nitrobacter sp. & Nitrospira sp.
MICROBE-LIFT/Nite-Out II (already added in step #2) provides the necessary Nitrobacter sp. and Nitrospira sp. bacteria required for the oxidation of nitrite to nitrate in the aquarium filter.

2 steps to a natural, clean, clear, non-toxic aquarium environment!

Fish

Sources of Ammonia

In addition to the ammonia released by the fish through their gills, fish waste plus uneaten food protein and dead plant matter are broken down by the aquarium microbiota, generating ammonia

step #1: add MICROBE-LIFT/Special Blend
Speeds the removal of all organic waste matter in aquariums by adding a select group of microbes that increase the rate of organic breakdown and improve filter performance.

step #2: add MICROBE-LIFT/Nite-Out II
Provides the necessary nitrifying bacteria (*Nitrosomonas* sp., *Nitrobacter* sp., and *Nitrospira* sp.) required for the biological nitrification process, and assures the continued removal of toxic ammonia.

Nitrosomonas sp.
(contained in **MICROBE-LIFT/Nite-Out II**)
Converts ammonia to Nitrite (NO₂⁻)

Naturally CYCLES Freshwater & Saltwater AQUARIUMS FAST

Two novel, chemical-free products formulated to eliminate organic waste matter, enhance water quality, & reduce ammonia, nitrite, & nitrate toxicity!

Reef Safe



Visit us at
www.MicrobeLift.com

Ecological Laboratories, Inc.
Providing Aquatic Solutions Since 1979



WINTER CAN BE MESSY

OF ALL THE SEASONS, winter is the hands-down dirtiest.

It is filled with leaves and soil, trash and air-borne pollutants of all sorts that blow without a care. Water being a veritable “dirt magnet” makes it likely that your pond(s) will receive more than a fair share of the pollution (both organic and inorganic). This is the first part of the problem. The second is the cold temperatures that prevent or slow down organic waste removal. This leaves spring, our finest season, ripe for a “tune-up” and a big clean-up.

Area waste, above ground is easy to see and simpler to rake and remove. But a pond requires water changes, possibly emptying it to vacuum and replace everything for the new season. Spring is the time to find out what fish lived through the winter. It is exhilarating to work in the garden after months of being idle indoors, perhaps snowed in. After raking the winter leaves and debris from surrounding areas, we

will usually fertilize and mulch, right? Well, in the pond, it is a good idea to check your fish for any sores, red spots, visible parasites clinging to fins or skin, and give them a bit of salt (0.1% if you have plants in the pond). Winter water testing is done by taking the water sample indoors, allowing it to warm to room temperature, and then finding out what the ammonia, pH and other levels are. If a water change is needed, we do it (even in the whipping wind!), add new water slowly, with MICROBE-LIFT®/ DECHLORINATOR+ for safety. Warm water, if added too quickly, will trick your fish into thinking they are hungry, so please go slow.

continued

by Carolyn Weise



MICROBE-LIFT®/ DECHLORINATOR +
WATER CONDITIONER

After the pond is cleaned and the fish cared for, the filter is readied for the new season. March may be early to start up an above-ground system if you have had it shut down for winter, but it should be warm enough outside (on some days) to at least start the preparation work. Don't change anything in the pond yet. Adding new plants will excite the fish prematurely and we still may have a late cold snap. New plants should be sanitized before adding to the pond and new plants always create in my koi the desire to spawn. Remove any sharp rocks which may have fallen in the pond during the winter and may cut the fish. Make sure all the waterfall rocks are secure; have not been moved by the freeze-thaw or visiting wildlife. When all is done, you will be ready for spring and summer! 🐸



*“Consider this a love letter for
MICROBE-LIFT®!*

*Our 5 family, 1/3rd acre retention pond
which, at it's deepest is about 16”,
is beautiful this year!*

*We began MICROBE-LIFT® treatment
approximately one year ago, hoping it
would solve the problem of 6” of
**BLACK STINKING POND BOTTOM
MUCK** that had developed over the pond's
16 year history... & I must say there were
some cynics among us. Last week
I had occasion to don my waders & go
slogging around in the pond.*

*To my delight, only a
tan (clay) sediment arose from my
footfalls & no black muck stench.*

*Now, when those of us whose homes
surround the pond look out of our rear
windows, we can see down to the
pond grass growing on the bottom
that the resident ducks seem to enjoy...*

*& another indication that
MICROBE-LIFT® SAVED
THE POND from reverting to a bog is
that some volunteer water lilies have
chosen a spot near the cattails to flourish.*

***MICROBE-LIFT® is a
wonderful & simple solution to
a very frustrating problem!”*** —JOAN



THE INDOOR POND (or Holding Tank!)

by Carolyn Weise

For those of you who bring your fish indoors to overwinter, there are a few basics to caring for them properly. The first, second & third of these is water quality! An indoor pond needs the same care, filtration, water changes & organic waste removal as the outdoor pond.

SETTING UP THE INDOOR POND

1. Start preparations with new dechlorinated water (if you have chloramines in your water supply, MICROBE-LIFT®/AQUA XTREME also handles the free ammonia). Test the water parameters for pH, chlorine/chloramine, Total Alkalinity, General Hardness, Nitrite/Nitrate, Phosphate and KH. Add salt to 0.1% and a sinking pond thermometer.

2. As the water temperature reaches that of your pond, or within 2-5 degrees, it's time to move the fish indoors. If the water in the pond is already colder than the indoor tank, take the time to bag your fish with pond water and oxygen. Float the bags (with fish) on top of the tank water to allow the temperature to slowly acclimate. This can take 30-60 min. Open the bag, but *do not* dump it into the new tank! Lift the fish out of the bag (which may be a two-person job) and into the tank. Throw away the bagged pond water. You don't need it. Put a net securely over the tank to prevent jumpers from escaping to the basement or garage floor.

3. Add MICROBE-LIFT®/NITE OUT II and MICROBE-LIFT®/PL immediately to the water, as per the directions on the containers. MICROBE-LIFT®/NITE OUT II can be added every other day until ammonia and nitrites level off *continued*



INSET FISH PHOTOS by CAROLYN WEISE BACKGROUND PHOTO by RICHARD WOLFERT



MICROBE-LIFT® / TEST STRIPS



PHOTO by CAROLYN WEISE

*"I don't know
what I'd do without
MICROBE-LIFT®/PL.
It is the best."* — ANN

(to zero) and your tank is cycled. Withhold food for the first week while the tank is cycling. Keep monitoring parameters until the tank is stabilized. Do partial water changes as needed and add more salt to keep levels at 0.1–0.3%. The salt will protect the fish from nitrite toxicity as the new tank water becomes cycled and will reduce osmotic shock of moving them from the pond to a new environment.

4. Plants need sunlight, fish do not! Carp don't have specific needs regarding sunlight, so the lighting you add to your indoor pond/tank is for the purpose of visually inspecting the fish. Place the lighting high enough above the water so that it can't be corroded by splashing fish and plug it into a GFCI outlet.

5. Depending upon the temperature of the water, feed normally once the tank is cycled. 🐟

And for those of you who do not bring your pond fish indoors for winter, I'm sure you have an indoor aquarium. MICROBE-LIFT also has a wide variety of HOME AQUARIUM products especially for you! Whether it is reef/marine or freshwater or a planted aquarium, you'll find exactly what you need to set up and maintain the perfect environment for your chosen wet indoor pets.

& BACKGROUND PHOTO (top) by RICHARD WOLFERT

*And don't forget our
fine feathered friends during winter...*

**Wild birds have a real shortage
of unfrozen water during winter.
Fresh water is more important
than birdseed. Use a birdbath de-icer
& MICROBE-LIFT®/BIRDBATH CLEAR.**



ROBIN PHOTO (bottom)

What do they have in common?



It may seem that the **leading pond water clarifier** would have *nothing* in common with **the world's leading soft drink**. Well, except for the fact that they are both liquid, there is something else! Coca-Cola's competition is always making claims to be better than Coke. The reason they do this is easy to understand: it's because many people feel that **Coke®** is **THE BEST** soft drink and the standard by which all other soft drinks are measured.

Over the last four years, several new biological products have been introduced by our competition, all making the same claim: that they are better than MICROBE-LIFT®. Some have even made the statement that the bacteria in MICROBE-LIFT® are DEAD!

Well, we are very flattered that people use MICROBE-LIFT® as the standard for our industry! And, as for the negative comments about MICROBE-LIFT®, everyone knows that no good salesperson or company with a good product badmouths the competition. In fact, many of our customers believe that companies using unprofessional sales tactics like these lose credibility because, regardless of what they may say or claim, MICROBE-LIFT® is the **#1 selling** and **BEST** bacterial product because it works better than any other bacterial product on the market. We can also say, based on the false statements made, the competition doesn't understand the technology behind MICROBE-LIFT®/PL. View it for yourself...

Mark J. Krupka

MARK J. KRUPKA, VP/TECHNICAL DIRECTOR
MEMBER, AMERICAN SOCIETY OF MICROBIOLOGY (ASM)

Ecological Laboratories INC.
www.microbelift.com • Call 800.645.2976

Go to
www.microbelift.com

and view first hand just how active our so-called "dead" bacteria are in the bottle! Under our digital video camera equipped microscope, we show you the **vibrant activity** exhibited by MICROBE-LIFT®/PL just minutes after taking a sample from the bottle. We also show just how **nonrobust** and **inactive** the competitor's products are **even hours** after taking them from their bottles. That's because most are limited to Bacillus species that don't give you the robust performance of MICROBE-LIFT®'s broad spectrum of organisms. We've even tested that new product claiming to be the "Heinz+ One" of bacterial products with 58 different species of bacteria, and guess what we found...primarily the same three Bacillus blend that everyone else has!

FALL WINTER

ARCHIVAL RESOURCES

www.microbelift.com/htmls/video.php

SEASONAL ISSUES

GETTING READY FOR SPRING & SUMMER *by Carolyn Weise* – SPRING/SUMMER 2010

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

A BETTER PRE-FILTER – 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

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

POND CONSTRUCTION/FISH HEALTH ISSUES

CALCULATING POND VOLUME *by Mike Anger* – SPRING/SUMMER 2010

SALTING A POND *by Jerald Kyle* – SPRING/SUMMER 2010

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

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

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

BEWARE THE AQUATIC PLANTS "WHITE LIST" *by Mark Krupka* – SPRING/SUMMER 2010

CAROLYN'S CANDIDS *by Carolyn Weise* – SPRING/SUMMER 2010

JUST A FISH – SPRING/SUMMER 2010

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

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 STONWORKS 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

PHOTO by GEORGE ERTL; RETOUCHE by ANDREA ROSS BOYLE



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