

the **MICROBE-LIFT**[®] watergardener

BUYING NEW KOI

The Basics of
Quarantine

Q&A's Beginners
Want to Know

PHOTO CONTEST &
UPCOMING EVENTS

**OPENING
THE POND**

Jump Start Your Filter

CATCHING FISH

Tips on Netting Fish Properly

PROTEIN QUALITY
What's in your Fish Food?



\$4.99 US, \$7.50 CAN, £3.25 UK



0 97121 20290 1

Visit us today at www.microbelift.com

MICROBE-LIFT[®]



LEGACY KOI & GOLDFISH FOOD

A Scientific Diet for Fish

All Foods Contain: **Nature's Building Blocks**

Setting A Whole New Standard ...

It's not just fish food - it's a nutritional feeding system!



Ecological Laboratories INC.
Solving Environmental Problems Naturally Since 1976.



Fish Food and Health Products

by Carolyn Weise, Ecological Laboratories, Inc.

Luckily **MICROBE-LIFT** researchers stay awake at night working on things to improve the health of our fish. We want safe and happy fish, too. So, in keeping with our promise to protect the environment and ecology for future generations, (like my grandchildren, Amanda, Kathryn and Emily) **MICROBE-LIFT** is looking after the needs of our pond inhabitants, many of which can outlive me.

For the Koi, Orfes, Shubunkin and Goldfish, **MICROBE-LIFT LEGACY** foods have introduced three new treats with both flavor and nutritional advantages! The primary source of necessary protein for our fish is derived from fish products, so the **KELP, KRILL & CRUSTACEAN TREATS**

with Vitamin C, will be a special addition to any fish's diet this year. Mmmmm, tasty!!

And here I am eating hamburger, huh? My fish are worth it. Or try the **VARIETY MIX** with floating pellets and sticks.

For transitional situations, look for **ML/LEGACY SINKING FOOD**. Koi are natural bottom feeders, so why not give them food where they would normally feed?

The shy fish in the pond can now eat without fear of airborne predators. This is very helpful when fish are acclimating to new



environments... **LEGACY** foods will not cloud the water.

And for the health of the fish, several new products "just in case"- We have added **POND FISH PROTECTANT, POND FISH WOUND HEALANT, POND FISH PARASITE TREATMENT, and POND FISH ANTI-FUNGAL TREATMENT**. Your fish depend on you to give them the best shot at health and longevity. Stock up on these for your pond first-aid kit from the people you know and trust!



EDITORIAL STAFF

Michael Richter, Barry Richter, Carolyn Weise

ARTWORK

Carol Andersen, Jennifer Charles
www.Knack4design.com

PHOTOGRAPHY

Tom Burton, Keith Rabinowitz, Greg Speichert,
Carolyn Weise, Richard Wolfert

COLUMNISTS

Tom Burton, Vicki Burnley-Vaughan, Doug Dent,
David Duensing, Max Hammond, Mark Krupka,
Dr. Bob Passovoy, Bob Rieser, Greg Speichert,
Dr. Julius Tepper, DVM., Carl Webster, Ph.D.,
Carolyn Weise, Larry Womack, Joe Zuritsky

PUBLISHED BY

The Microbe-Lift Watergardener,
Ecological Laboratories, Inc,
PO Box 132, Freeport, NY 11520
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



Contents >

- 4** Editor's Welcome by Carolyn Weise
- 6** Q & A's- Beginners Want To Know
by Carolyn Weise, Consumer Relationship Manager and
Mark J. Krupka, Technical Director of Ecological Laboratories, Inc.
- 6** Protein and Protein Quality in Fish Feeds
by Carl D. Webster, Ph.D., Aquaculture Research Center,
Kentucky State University

- 8** Catching Fish
by Tom Burton, Mid-Atlantic Koi Club Veteran
- 9** Plant Forum - Queens of the Pond
by Greg Speichert, President, Water Gardening Magazine
- 10** Buying New Koi- The Urgency of Quarantine
by Carolyn Weise, Ecological Laboratories, Inc. and Julius Tepper, DVM,
LI Fish Hospital, Shirley, NY
- 12** Opening the Pond - Jump Start your Filter
by Carolyn Weise
- 13** Whisper Down the "Technical" Alley
by Mark Krupka
- 14** Alright, Why Should I go to a Koi Show?
by Bob Passovoy, President, Midwest Pond & Koi Society, IL
- 14** Upcoming Events and Photo Contest



COVER
Photograph by Greg Speichert,
courtesy of Water Gardening
Magazine, 2005.



NATURE PHOTOGRAPHY ON THIS PAGE COURTESY OF RICHARD WOLPERT.

editor's letter



WELCOME to our first issue of the MICROBE-LIFT WATERGARDENER magazine! This has been quite a learning experience for all of us at Ecological Laboratories, Inc. as we (to use an old cliché) “never did this sort of thing before.” It has been a sort of learn as you go enterprise, and meeting new people, working with such a wide variety of esteemed authors, one cannot help be impressed. If nobody else learns a thing, I know I did. And I’ve enjoyed every minute of it! Who says you can’t teach an old dog a new trick?

I’ve been in the koi hobby since 1990 and writing for the Mid-Atlantic Koi Club magazine since 1996. It is my habit to write everything that happens, no holds barred. And I want people to enjoy what they read, laugh at my mistakes, learn with me and make things “better” perhaps. So, it is to this end that I selected these authors and articles for you, that everything is interesting and important to YOU, the hobbyist, and something you will be able to use in your own life in one way or another. These people are the best of the best. Just ask us. We’ll tell you how good we are. We’ll also tell you how we got there, which is more important than where we are today. It’s been a great journey and there’s more to come. Upward and onward as we trudge our road to a happier koi pond—

Your editor,

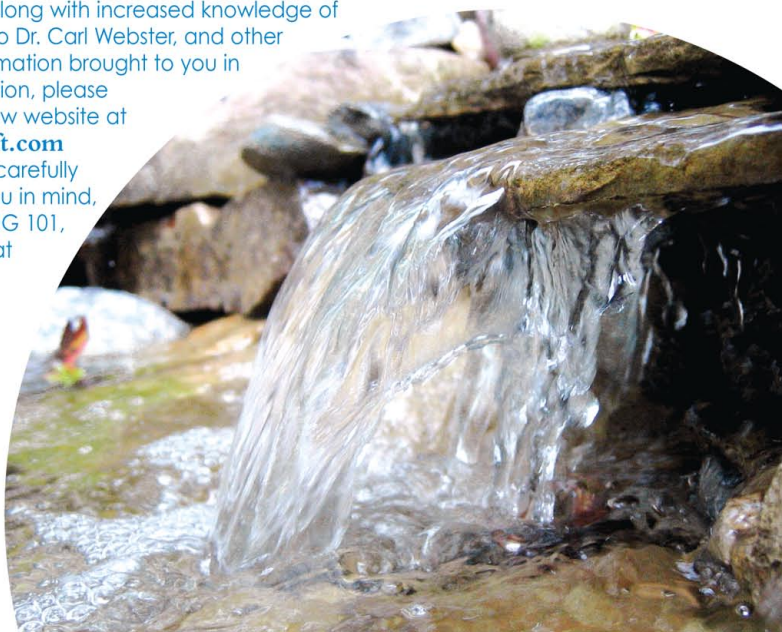
Carolyn Weise

Carolyn Weise



P.S. I would like to draw your attention to the new items in MICROBE-LIFT’s product line to aid in caring for your ponds and fish, along with increased knowledge of proteins, thanks to Dr. Carl Webster, and other very helpful information brought to you in this issue. In addition, please check out our new website at www.microbelift.com which has been carefully prepared with you in mind, with PONDKEEPING 101, FAQ’s and a great POND FORUM. Everything you wanted to know about ponds.

See you there!



about the editor

Carolyn is the Consumer Relationship Manager of Ecological Laboratories, Inc. and liaison to koi and watergarden clubs in the USA 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. She is a regular columnist for “Water Gardening Magazine” and the former “Pond & Garden Magazine”, and writes a weekly Q&A column for “MacArthur Water Gardens”, Boca Raton, FL. In her spare time, she maintains her own koi pond and active participation in Mid-Atlantic Koi Club on Long Island, NY.

this issue's
featured **AUTHORS**



MARK KRUPKA
Vice President and
Technical Director
of Int'l. Sales,
Ecological
Laboratories, Inc.

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.

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



CARL D. WEBSTER, PH.D.
Aquaculture
Research Center,
Kentucky State
University

Dr. Carl D. Webster has more than 16 years of experience in aquaculture nutrition and diet development research. Currently, he is Professor and Principal Investigator for Aquaculture at the Aquaculture Research Center, Kentucky State University, where he conducts research on nutrient requirements and practical diet formulations for fish and crustacean species that are currently, or have potential to be, cultured. He has authored or co-authored more than 100 publications in peer-reviewed, technical journals and lay publications, and has served as Co-Editor of four books published by The Haworth Press and CABI Publishing.



JULIUS TEPPER, DVM.
Long Island
Fish Hospital,
Shirley, NY

Born and raised in NYC, Dr. Tepper graduated from York College of CUNY in 1971. He then went to Europe to study veterinary medicine, graduating with honors from the University de Liege in Brussels, Belgium in 1976. Returning that year to NYC, he began practicing and held a special interest in birds and exotic animals. After many requests from clients, he opened the Long Island Fish Hospital in 1998 to care for the health of pet fish.

Dr. Tepper is a member of the International Association for Aquatic Animal Medicine, Association of Reptile and Amphibian Veterinarians, Association of Avian Veterinarians, the AVMA and state and local veterinary associations.

With a special interest in ponds, watergardens and koi, Dr. Tepper developed a phytoremedial device for water quality improvement and received a U.S. patent for this invention. Known as "Pondtoons", these are currently in use in ponds, watergardens and in quarantine and treatment tanks for koi. Dr. Tepper has authored many papers on fish health and pondkeeping.



GREG SPEICHERT
Horticulturist,
Publisher and Editor
of Water Gardening
magazine and
Midwest Gardening
magazine

Greg is an accomplished horticulturist and an avid plant breeder. He is a favorite speaker for plant societies, landscape organizations, and garden clubs. He is the author of three books on water gardening: The Encyclopedia of Water Garden Plants, Water Gardening in Containers (co-author), and Ortho's All About Water Gardening. Greg is the Publisher of Water Gardening magazine and Midwest Gardening magazine. Greg's articles have appeared in Fine Gardening, American Nurseryman, and Pondkeeper, as well.



TOM BURTON
Veteran
Mid-Atlantic Koi
Club Member

Tom Burton has been active on the Mid-Atlantic Koi Club Advisory Board, was '92 Koi Person of the Year, Northern Chapter VP for many years, and following training at the University of Georgia's fish-vet course, founded MAKC's Health Hot Line, now featured in the Mid-Atlantic Koi magazine. A frequent speaker on the subject of pond building, and a sought out pond building consultant, he has been well received at the International Water Lily Symposium, Longwood Gardens, the New York Botanical Gardens and Hofstra University as well as a guest speaker at Canadian events. He is the second most published author in the well-received book From the Pages of MAKC News and is renowned for his design and building of one of the most admired ponds and gardens in the country.



BOB PASSOVOY
President Mid-West
Pond & Koi Society

Bob Passovoy stumbled innocently into ponding eleven years ago when his wife decided she wanted a water lily. He now operates a 4400 gallon koi pond with 28 koi, a 550 gallon swamp with fancy goldfish, a filtration system that'll give you nightmares, and (because he left the room at the wrong time) is president of the largest water gardening club in the Midwest, namely the Midwest Pond and Koi Society, Illinois. Bob is a part-time dental surgeon and full-time water gardening family man, and a highly-respected member of the community. When not setting up shows, he is writing for club magazines and sharing his knowledge with newcomers.

CONTRIBUTORS



DOUG DENT
Product
Development
Manager,
Ecological
Laboratories, Inc.



VICTORIA BURNLEY-VAUGHAN
Director of Aquatic
Services, College
of Veterinary
Medicine, University
of Georgia



BOB RIESER
President -
The Frog Bog
Verona, WI



RICHARD WOLFERT
Retired Science
and Computer
Teacher



JOE ZURITSKY
Owner/President
Parkway Corp.
Quality Koi/
Nisei Koi Farm



DAVID DUENSING
President -David
Duensing &
Associates, Inc.,
NAPP Director



MAX HAMMOND
VP Production
Nature's
Expressions, Inc.,
Nicholasville, KY,
NAPP President



LARRY WOMACK
President -Nevada
Water Gardens
NAPP Past
President



Visit the NAPP "National Association of Pond Professionals" website at: www.nationalpondpro.com

Questions & Answers

Beginners want to know

by Carolyn Weise and Mark Krupka
of Ecological Laboratories, Inc.

Q My fish are up and looking for food. When can I safely start feeding and what kind of food do you recommend to start?

A Thank you for asking this very important question. As fish are cold-blooded and assume the temperature of their environment, you need to monitor the temperature of the water for the correct time to start feeding. And as spring temperatures are so variable with late snowstorms, also monitor the weather forecasts.

There is more to starting to feed than meets the eye, as the filter bacteria have to become re-established to avoid problems with ammonia spikes. Ammonia is deadly at levels as low as 1.0 ppm. I would recommend you jump start your filter with either the ML/Super Start for Bubble Bead Filters or ML/GEL Filter Pad Bacterial Inoculant to get ready for the influx of ammonia from the fish once feeding begins. This is the primary reason to begin with low protein foods which are both easier to digest for the fish and easier for the filter to handle at lower bacterial concentrations. MICROBE-LIFT/Legacy Cold Weather (Wheat Germ) Spring/Fall Formula food contains high vegetable protein (rather than the warm weather animal/fish proteins) and are suitable

for feeding once the temperatures become stabilized above 50-55°F.

Nitrifiers in the filter do not function well when the temperature goes below 50°F and around 42°F they shut down completely. So, it is a double-barreled situation when starting to feed in spring!

Q I covered my pond this winter and when I removed the cover I found a lot of leaves still got in there. The bottom is covered with them! I don't have a bottom drain and got all I could out with the net, but there are so many smaller ones that I can't seem to get. What can I do to clean up the pond? I don't want to empty it again and stress the fish when they are not fully "awake" yet.

A Have you considered MICROBE-LIFT/Spring/Summer Cleaner? This product is specially made to function in colder water and is a two-step process to clean up the pond in situations exactly like yours! The bacterial strains in the liquid container were developed for cold water and will jump start your pond in spring. Then the water soluble packets that contain cellulase enzymes and hyper cellulase-producing bacteria will begin to accelerate the breakdown of leaves, twigs and other accumulated dead organic waste.

ML/Spring/Summer Cleaner is not a chemical. This is the seasonal approach to the proper organic balance in ponds!

Q Last year I had a terrible time with string algae! A friend told me to use Microbe-Lift. Is it an algacide? And will it harm my fish or my dogs that drink out of the pond? I just can't take another season pulling out that awful muck from my pond.

A You are definitely in luck!! We have combined our #1 selling MICROBE-LIFT/PL with GreenClean, an EPA registered granular algacide, in the "MEAN GREEN ALGAE TEAM" value pack, a brand new item in our catalog this year. It is a two-step program wherein you will apply the GreenClean and watch the algae die before your eyes! Then three days after using GreenClean, apply the MICROBE-LIFT/PL to make the dead algae completely disappear by degrading it to carbon dioxide and water! Without the ML/PL to remove the dead algae, it would simply fuel a brand new algae bloom! In addition, ML/PL will seed your filter, help break down other organic sediments on the bottom of the pond, keep the water crystal clear, and help establish and maintain efficient nitrification. And it won't hurt your dogs. If you don't see it at your MICROBE-LIFT dealer, just ask for it!

Protein and Protein Quality in Fish Feeds

Importance of Water Temperature & Good Nutrition

by Carl D. Webster, Ph.D.
Aquaculture Research Center, Kentucky State University

Nutrition involves the processes by which an animal is provided with nutrients needed for maintenance, growth, health, coloration, and reproduction.

A nutrient is defined as an element or compound of dietary origin which is necessary to support the life and well-being of an animal. Nutrition concerns

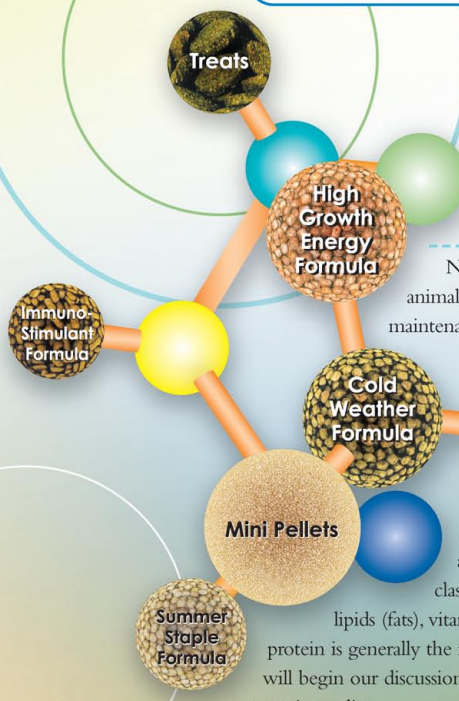
all aspects (assimilation, digestion, absorption, and utilization) of a food. There are several broad classes of nutrients in a food. These are proteins,

lipids (fats), vitamins, minerals, carbohydrates, and energy. Since protein is generally the most important constituent of a fish feed, we will begin our discussion of fish nutrition with a look at protein and protein quality.

Protein is not only the most important constituent of a fish diet, it is generally the most expensive (compare the prices of a pound of steak to a

pound of rice). Proteins are made up of amino acids linked together by chemical bonds. There are 20 amino acids which are common to most proteins, and 10 of these are essential for normal growth and health of the fish. These 10 essential amino acids are called, oddly enough, essential amino acids. They are: arginine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine. There are three types of proteins. Fibrous proteins are highly indigestible and include collagen (found in connective tissue and bone), elastin (found in blood vessels), and keratin (found in hair, hooves, scales, and feathers). A second type of protein is the contractile proteins which are found in the muscle. These proteins are highly digestible and are found in the flesh of all animals. The third group is represented by globular proteins which are found in hormones, enzymes, and blood.

Proteins serve many functions in fish. They are components of bones, skin, organs, and muscle. Generally, about 70% of the total weight of the fish is made up of protein. Like humans, fish cannot make the essential amino acids in the body. Therefore, fish need to have a dietary source of proteins as the source for essential amino acids. As the protein is broken



down in the digestive tract, the amino acids that were once linked together are separated into individual amino acids, called free amino acids. These free amino acids are carried through the blood and travel to the various organs and tissues where they are rejoined together to make new proteins. If a fish gets too little protein in the diet, growth of the fish is reduced and, in severe cases, weight is lost. Feeding fish too much protein in the diet is not wise because protein is expensive and the cost of the feed will be higher than needed, and the excess protein will be used as an energy source. Lipid (fat) is a much better, and cheaper, source of energy for fish.

Fish require a certain percentage of protein and a certain level of essential amino acids for proper growth. These requirements depend upon the size of fish, water temperature, culture conditions, daily feeding rate, stocking rate, and species of fish. The last factor is different than in most animals. One breed of cattle requires the same protein level as another breed. Likewise, all breeds of dogs require the same protein level in their diet. This is true for goats, cats, hogs, etc. However, each species of fish have their own protein requirements. Thus, koi have a different protein requirement (actually essential amino acid requirements) than do largemouth bass, or carp, or tuna. This makes feed formulation for fish quite interesting.

Protein quality, or the nutritional value of proteins, is based upon the amino acid composition of the feed ingredients, specifically the essential amino acid content, as well as the availability of the amino acids. The percentage of protein that can be digested by a fish determines protein quality. For instance, poultry feather meal is an ingredient with a high percentage of protein (80%) and is not very expensive. Thus, one might think that a fish diet could use a high percentage of this ingredient and save the producer some money. However, this is not the case. Poultry feather meal is very poorly digested by fish and thus has a very poor protein quality value. However, if the feather meal is hydrolyzed (broken down) during processing, the protein quality is improved, but so is the cost of the ingredient.

Generally, marine fish meal represents the highest quality protein source used in fish diets. Marine fish meals can contain between 60-75% protein, of which between 80-95% is digestible. Poultry by-product meal is an animal-source protein ingredient that has attracted much attention from nutritionists and is used in numerous feed formulations as a partial or total replacement for marine fish meal. Soybean meal, cottonseed meal, corn gluten meal, soy protein products, and distiller's and brewer's by-products are commonly-used plant protein sources. For koi and goldfish diets,

“Like humans, fish cannot make the essential AMINO ACIDS in the body”



PHOTOGRAPH BY CAROLYN WEISE

additional ingredients may be added to the diet to enhance color and health of the fish, such as algae meals, yeast, protective and chelated forms of vitamins and minerals, and ingredients that enhance color of the fish.

Thus, when one evaluates a feed, it is not enough to know the percentage of crude protein. One must know if the ingredients supplying the protein have a high protein quality that is digestible to the fish. Only by meeting these two criteria can a fish feed be considered adequate to meet the protein requirements of the fish.

“However, each species of fish have their own PROTEIN requirements”.

PHOTOGRAPH BY CAROLYN WEISE



MICROBE-LIFT® LEGACY CRUSTACEAN TREATS
KELP TREATS, & KRILL TREATS

Catching FISH

by Tom Burton



“Never lift a fish out of the water in the large net as it’s very likely to cause DAMAGE to fins or scales.”

Some folks have said I seem to have a knack for netting fish. Maybe so, as it seems to come very naturally. But when asked to describe my method (or write about it) it’s sort of like trying to tell somebody how to ride a bike or learn to drive; there’s no substitute for experience. However, to shorten the learning process, here’s my methodology, for whatever it’s worth.

A 32" net is a “must” no matter what size fish you’re going after. The length of the handle depends upon the size of your pond, your strength (you’d be surprised how heavy and cumbersome that thing becomes with over a five foot handle), and whether or not you’ve got a “herder” to help keep the “target” fish in your reach. By the way, the herder never attempts to catch the fish.

I keep total concentration on the target fish, and the position of my net, all the while segregating the target. Don’t get distracted. Move very slowly. Don’t stress the other guys either. Let’s keep everybody cool and calm.

Start advancing on the target from the bottom of the pond. You want him to rise toward the surface (it would do you no good to have him in the net at four feet - he’d just swim away as you started your ascent.)

Once near the surface, the net should be moved under the fish and slowly raised and turned toward the side of the pond to corral the fish. Then, slowly raised and turned up to the surface with the fish “free” in the water in the net. NEVER lift a fish out of the water with a net as you may injure a scale or fin inviting a bacterial invasion in the broken mucus immune system.

At your side you have a large pan, such as we use at shows, which you can now, after having brought the fish hand-over-hand closer to you, dip into the net and allow the target to gently enter. Or you could use a sock net for the transfer but - NEVER lift a fish out of the water in the large net as it’s very likely to cause damage to fins or scales. Sounds easy doesn’t it?

A couple other “nevers”:

If the fish darts past your net or jumps out of it, never give chase. Just start the process over again. Never stab the net at a fleeing fish. Suppose you nailed it to the side of the pond. That’s like taking a block from a Dallas Cowboy - survivable, but sometimes bringing injury and always bringing discomfort.

The old saw about “If at first you don’t succeed” comes to mind about now. Practice. And in the meantime, happy hunting. 🍀

“Catch me if you can”

PHOTOGRAPH BY CAROLYN WEISE



Queens of the Pond

by Greg Speichert of Water Gardening Magazine
www.watergardening.com P.O. Box 607, St. John, IN 46373

The most well-known water plants are waterlilies and rightly so. They are the queens of the pond with beautiful flowers and a heady fragrance. Plus their colorful blooms are more beautiful than any royal gown.

There are two types of waterlilies: hardy and tropical. Hardy waterlilies can stay in the pond through freezing temperatures while tropical waterlilies need warm temperatures to survive. You can tell the difference between hardy and tropical waterlilies by their leaves. Hardy waterlily leaves have smooth edges while tropical waterlily leaves are serrated.

COLORS

Hardy waterlilies come in red, yellow, white, pink, sunset and orange. A unique group of hardy waterlilies are changeable. Their flower color changes from day to day as they bloom. Some will open red and fade to yellow by the third day. Others will open yellow and mature to red by the third day. 'Indiana' and 'Little Sue' both go through remarkable changes from day to day.



RHONDA KAY WATERLILIES

Tropical waterlilies also have a variety of colors including blue, purple, pink, white and sunset. Some tropical waterlilies are night bloomers. The blooms open at dusk and close early in the morning. These are great for ponders who work from 9-5 because they can enjoy the fragrant blooms of their tropical waterlilies.

SOIL

The best soil to use for waterlilies is heavy clay because it is soft when wet and has a high holding capacity for nutrients. If heavy clay soil isn't readily available, use a bagged pond soil or

General knowledge about majestic waterlilies will make adding them to your pond a royal treat



generic clay cat litter. Don't use bagged top soil or potting mix as it will break down in the pond and make the water murky. Coarse sand and pea gravel will prevent fish from digging in the soil. Use dark pea gravel because it makes the water plants look greener and the pond look deeper.

PLANTING

Waterlilies like wide, shallow containers. Seven gallon tree pots work well for most waterlilies. Generally, a 17 inch diameter pot or more is sufficient for large waterlilies. For mini waterlilies, 10 inches in diameter (a hanging basket sized pot) should do.

Make sure to plant waterlilies clear of any fountains, spitters or waterfalls. A continuous spray of water will cause the leaves to rot.

Another route is to plant the lilies directly on the bottom of the pond. I prefer this method because the lilies flourish and don't need to be transplanted as frequently. Here's how to do it. First, create a ring of stone 10 inches high on the bottom of the pond. Then line it with landscape fabric. Next fill the ring with heavy clay soil and plant the lilies. Firm the soil and create a slight crest across the planter. The crest will make for easy rinsing when the pond is drained and cleaned each year. Then top with an inch of coarse sand and finally an inch or so of pea gravel.

WATER DEPTH

Large waterlilies like water between 2 and 4 feet over the crown. Smaller varieties like it 1-2 feet over the crown. Although waterlilies will grow in water that's shallower or deeper, they don't perform as well.

FERTILIZATION

Waterlilies need a steady supply of food to keep blooming and looking good. So feed them at least monthly with a pond fertilizer. I like tablets that you push into the soil of the pots or planters.

PESTS

The most common pests for waterlilies are aphids and China mark moth. Aphids will cause the leaves to yellow and will eat holes in buds and blooms. Aphids are easy to control by rinsing them off the leaves and flowers, dusting the plants with diatomaceous earth or using one of the many pond safe aphid control products.

The China mark moth cuts pieces out of waterlily leaves to use as shelter. A severe infestation of China mark moth makes your pond plants look like cole slaw. A natural control for China mark moth is *Bacillus var. kurstaki* (Btk), which is the active ingredient in caterpillar attack.

The right know-how and some common sense are sure-fire ways to succeed with waterlilies. Waterlilies will reward the dedicated pondkeeper with a majestic show of color and beauty – as only a queen can. 🌸



MICROBE-LIFT®
AQUATIC PLANTING MEDIA
PRE-COLONIZED WITH
MICROBE-LIFT® BACTERIA



WHITE WONDER WATERLILIES

Buying new koi

The Basics of Quarantine



PHOTOGRAPH BY
KEITH RABINOWITZ

by Carolyn Weise, Ecological Laboratories, Inc. and Julius Tepper, DVM,
Long Island Fish Hospital, Shirley, NY

When I started collecting koi, I knew nothing and was blissfully ignorant. I think “blissful” was my key word here. And, why not? I was engaged in a prestigious new hobby, one with excitement, extravagance, danger. Back then, we had the *Aeromonas* and *Pseudomonas* infections to watch out for! We had parasites! We even had thieves who stole into peoples’ yards at night and stole their koi! “Ignorant” didn’t mean much to me at that time. Nor should it. But in 1998, the koi hobby was irrevocably changed—forever. No longer can I (or any other koi collector) afford to be blissfully ignorant about quarantine when it comes to adding new fish to our collections.

The word itself has had far reaching effects. Shows have changed also. No longer do we have the luxury of viewing all the same-size category show in one tank, but the judges now have to go the length of the showroom floor to judge the merits of one fish against another in order to protect the contestants from communicable and fatal disease. In 1998, immediately following a koi show at Hofstra University, NY, many ponds were wiped out due to a new disease, yet unnamed and undiagnosed. I bought three fish at that show and was one of the very lucky ones.

I did not experience any sickness or loss following the show. It matters little from whence it came, but that it did come and it is an ever-present danger in any pond or show. We are no longer blissfully unaware. Precautions have been instituted, at least, at the show level.

Have you taken the necessary precautions at home? It is not just the imported koi that can be infected with KHV (as we now know it). No koi dealer is exempt from at some time in the future purchasing a “carrier” fish without his knowledge. It is not a guarantee that your

fish will be safe simply by buying “only domestics”. Let’s look at what you go through when buying a new fish, and you decide.

When purchasing a new fish, the gorgeous fish in the dealers tank with the reported history of coming from his “own stock,” born last year (or this year) and he has never had any disease, all fish in his stock are treated for any parasites and are – “guaranteed clean”...

- a) Do you ask any more questions and take a really good look at the fish in the bag, maybe have the dealer take a scraping for you?
- b) Do you take the fish home, float the bag on the pond until the water temperature is the same and then release it?
- c) Do you do a salt-dip and then release it into the pond?
- d) Or do you have a quarantine tank that will house the fish for the next 4-6 weeks (or longer)?

Well, if you answered anything but “d” you lose! KHV is not readily detectible unless the fish is already dying. The fish could be a carrier and infect all your other fish. How do you know the dealer knows the health of this particular fish and where did he get this

information, or how do you know you can trust him if you have a pond full of beautiful koi at stake? Most of us would really prefer to believe the dealers are the experts so we don’t have to work so hard at protecting our fish. But it is your responsibility, not theirs. If you do not have a quarantine tank, get one. There is no koi owner with a “too small” pond to forget about quarantining new fish. Now is the time to think about the consequences of adding this one more, “cute little fellow” to your friendly, loyal bunch at home....

A quarantine tank should be the cleanest water on your property. It should be deep enough and highly filtered, covered with a net to prevent escapees from succeeding, and close to a water supply. It should be close to the house where you have easy access and can readily

monitor the fish. It should be large enough to accommodate sick fish (as they will grow) and should hold more than one fish. It will need an aerator too. It will be a basic hospital tank.

In dealing with KHV, you will also want to be able to raise and manipulate the temperature in this tank. Raising the temperature to 74°F for two weeks will either bring out the virus or prove the fish to be negative, according to recent studies.

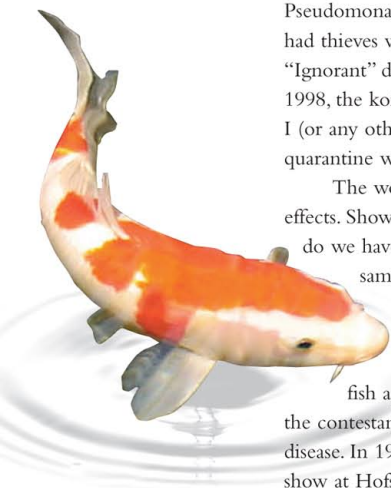
What must be impressed on hobbyists is that this virus must be treated like HIV in humans. Use universal precautions. Treat every

koi as though it is infected. Gone are the days of floating the bag on the pond and then releasing it 20-30 minutes later, to watch the new fish explore its new home. Gone are the days of seeing several owners’ fish in one tank at a koi show. Until there is a cure, and unless another disease arises, quarantine is the only way to go!

Now, the tools of quarantine regimen are as follows:

- Holding tank
- Netting or cover to prevent fish from jumping out
- Small bio-filter, preferably pre-colonized with nitrifying bacteria

“...or do you have a QUARANTINE TANK that will house the fish for the next 4-6 weeks (or longer)?”



“Use universal precautions. TREAT every KOI as though it is INFECTED”

- Small pump with protective screen over intake hose and all parts that can harm fish
- Dedicated fish net and bowl for quarantine tank only
- Dechlorinator
- Test kits
- Pond salt (Non-Iodized salt)
- Microbe-Lift/TheraP

The 21-day quarantine regimen is as follows:

(Note: The following dosages assume a 100 gallon tank. Adjust for your tank capacity accordingly.) This program originally designed by Water's Edge has been modified and presented anew that many fish deaths can be prevented.

Day 1: After thorough cleaning of tank, refill with dechlorinated water and set up filter with pre-colonized filter media. Add 6 oz. of Microbe-Lift/TheraP, mix 1.5 cup of pond salt with water from the tank, then distribute throughout the tank. Add fish.

(Note: Koi do not fare well unless there are two of them together.)

Day 2: Repeat above.

Day 3: Repeat above. Use salt level test kit to check the salt levels.

Our goal is to have a 0.3% solution by Day 3.

Days 4, 5, & 6: Monitor with water tests.

Day 7: Add 2 oz. Microbe-Lift/TheraP, check water levels.

Day 8: Add another 1.5 cup pond salt. Salt level should now be 0.4%.

Days 9 through 21: Dose weekly with 2 oz. TheraP.

- Examine fish daily.
- Watch for odd behavior: flashing, rubbing listing to one side, rapid breathing, or closed gills.
- Look for signs of bacterial/fungal infections: white or discolored spots, fuzzy growth on fins, tail or mouth, discoloration around gills.
- Check ammonia and nitrite levels every other day. If these

levels are high, or if the water becomes cloudy, perform a 30-50% water change, as needed. Refill the tank with water from your pond. (This will dilute your salt level, so add more salt. The total salt amount after Day 8 = 6 cups or 0.4%. If you perform a 30% water change, add 2 cups back. If you perform a 50% water change, add 3 cups.

- Feed sparingly (every other day) only as much as your new fish will consume in 5-10 minutes and remove any uneaten food. Remember, they do not have stomachs.

DO NOT USE TANK WATER IN ANY OTHER PONDS!

Maintain water temperature in tank at 74°F for two weeks to bring out KHV in the event fish have been infected.

According to Dr. Julius Tepper of the Long Island Fish Hospital, some, but not necessarily all of the following may suggest a KHV infected fish:

- Sudden death
- Loss of appetite
- Rapid “gilling”
- Lethargy and slow swimming
- Body sores
- Areas of “dry” skin (feels like sandpaper)
- Other areas with excessive slime production
- Whitish dead areas on the gills

If any of the above signs are seen, contact a fish vet to arrange for KHV testing.

Now the day comes and the fish have passed all their tests. It is time to put them in the pond. Take a fresh bucket with fresh pond water, put fish in the bucket, carry to the pond, and gently release the fish into their new home! 🌿

Footnote: Thanks to Water's Edge www.watersedge.com.



PHOTOGRAPH OF STU BLUMBERG'S POND TAKEN BY KEITH RABINOWITZ

Opening the POND

Jump Start Your Filter

by Carolyn Weise, Ecological Laboratories, Inc.

Spring is the most difficult time for a pond owner! The water temperatures, between 40-50°F is what we call “Aeromonas Alley” and a time (March, April and May) when the parasites are actively feeding before our koi have become reactivated. Their immune system is still half-asleep. Parasites and bacteria traditionally over winter in detritus on the

“The first thing to do in SPRING is make sure everything is CLEAN”

bottom of the pond and remain active even in the dead of winter, feeding on your fish. So.....

The first thing to do in spring is make sure everything is clean. Clean the filter, the pond, the stream, and the bogs. If you are using filtration media full of gravel, lava rock or other aggregates, it would be best to wash it out thoroughly to be certain the filter is optimally cleaned before having to take on the demands of fish waste in the spring.

If the pond does not have a proper bottom drain, a thorough vacuuming is a must. Any potted plants that have been settled to the bottom of the pond will now be raised and repotted, discarding any sickly or damaged parts and trimming any strangling root systems (or potting in larger containers). Lilies will need to be fed now. Do not power wash the sides of the pond. On the sides is the anaerobic denitrifying bacterium that is necessary to remove nitrites, before the algae bloom strikes.

Next, repair any tears or weak spots in the liner. Inspect the pond area to see if the winter freeze and thaw has damaged any of the surfaces before starting the above-ground water flow. Check the waterfall area and pipes. Check for rodents nesting in the system. As much as we would like our ponds to look natural, they are not natural and we are the caretakers. So, while admiring the crocus and daffodils, check the edges of the pond too.

Then take a good look at the fish to see if everybody looks alright. Are there any sores or are they flashing? This would not be a good time to ignore these subtle symptoms of disease in the makings.



PHOTOGRAPH BY KEITH RABINOWITZ

DO NOT START FEEDING YET.

The filter bacteria will not become active until the water temperatures reach 50-55°F and will take approximately 3-weeks to build up under normal conditions. This can be accelerated with certain products but by starting to feed before the filter is “ready” will further stress the fish. This is why cold weather foods are recommended in fall and in spring. In fact, for the first two weeks of feeding, you can use medicated food—once the filter is “charged”—if they have been spending the winter in less than optimal conditions, to protect the fish from secondary bacterial infections (caused by parasites feeding). The filter should be running as soon as the last hard freeze is past. Then follow with regular cold weather foods until the water temperatures are above 60-65°F. (Note: Cheerios do not have any real nutritional value to offer koi.)

You want the pond also to be parasite-free. To rid the pond of parasites, use non-iodized pond salt or potassium permanganate. And thoroughly clean and disinfect any new plants coming into the pond. Give thought to using soil-less potting media for repotting

plants so to limit the introduction of new bacteria.

Overall, to reduce stress on the fish, a clean pond and filter is the key to their reawakening in spring safely. Then you can enjoy your pond and your fish can survive another spring. 🌱



“California” SPRING HEALTH COCKTAIL for Pond Fish

by Carolyn Weise

Some pond owners are reportedly using a cocktail mix to combat spring blues in their ponds! Their secret is as follows:

Mix one part (one ounce) of each:

- ML/Pond Fish Wound Healtant
- ML/Fish Protectant
- ML/Pond Fish Parasite Treatment
- ML/Pond Fish Anti-Fungal Treatment

After mixing thoroughly, administer as directed for any ONE of these products to the pond to take care of fish health dangers! Use as directed.



Whisper Down *the* "TECHNICAL" ALLEY

by Mark Krupka of Ecological Laboratories, Inc.

Remember the game "Whisper Down the Valley"? I guess most people born after 1985 wouldn't be familiar with it since there isn't an electronic version. Well, for the uninitiated, it was a game where someone would come up with a phrase that was whispered from person to person until the last one in line spoke the phrase out loud. Most of the time, the last this version of the phrase bore little or no resemblance to the initial phrase. Something very similar happens in the passing of technical information regarding ponds and related technologies.

As a result, I have noticed during my ten years in the pond business that there are a lot of misconceptions and half-truths regarding the science involved in pond maintenance, particularly with respect to water. In order to address some of these, hopefully to the benefit of pond owners, my first articles will deal with what I feel are some of the most common misconceptions. I will try to keep it from getting too technical but it is hard to talk about aquatic chemistry without getting into at least a few technical terms, such as pH, or ammonia nitrogen levels. Speaking of ammonia, since it is such a critical parameter for good water quality, especially when there are fish present in the pond, I'll start there.

Nitrogen is one of the key building blocks of living organisms since it is one of the building blocks of amino acids, which in turn are the building blocks of proteins that make up a large portion of all living things. Nitrogen can exist as inorganic compounds like nitrogen gas (N₂), which makes up about 78% of the air we breathe; nitrite (NO₂) and nitrate (NO₃), or as organic compounds like amino acids (H₃N-C-COOH), amines, etc. The supply of nitrogen in the biosphere is finite so it must continually be recycled. Fortunately, nature has provided a host of bacteria capable of carrying out all the necessary conversions of nitrogen from one form to another to sustain life. In your pond water the nitrogen will most commonly be found in the form of either ammonia nitrogen, nitrite nitrogen or nitrate nitrogen. The ammonia and nitrate forms of the nitrogen are more commonly found in higher concentrations than the nitrite, which is usually a transient intermediate but can build up and cause a problem when there is incomplete nitrification.

I have had people comment that "their pond makes ammonia". While ammonia does turn up in the pond, it is not the pond making it. Most of the ammonia comes from protein in the food being consumed and broken down. When protein is broken down and all the nitrogen is not needed for protein synthesis by aquatic fauna in your pond, what is not needed ends up in your pond as ammonia that the fish give off through their gills. (Uneaten fish food on the bottom can also be broken down by bacteria and ammonia released through 'ammonification'.) Since ammonia can be toxic to fish in concentrations as low as 0.8 mg/L (ppm) having a way to keep ammonia below 0.8 mg/L is important. As mentioned above, nature has provided a way to do this through a biological process called "nitrification". Nitrification is the two step reaction through which bacteria oxidize ammonia to nitrite and then to nitrate. There are different populations responsible for each of these steps.

The reason ammonia can build up is because these nitrifying populations are slow growers and it takes time for a population to develop. Many people refer to establishing these nitrifying populations as "conditioning" or "cycling" the pond. MICROBE-LIFT PL can help these populations become established faster and our new Nite-Out II which is strictly nitrifiers has never failed in field tests to lower ammonia or nitrite within 24 to 48 hours. Applying MICROBE-LIFT PL helps these populations quickly become established on the media in your filter or skimmer. How long it takes to build up an adequate population depends on temperature, pH, and fish load.



Predator Proof Packaging

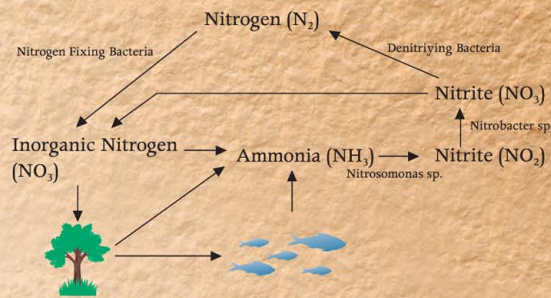
by Carolyn Weise of Ecological Laboratories, Inc.

After the alarm went off, as it always does at 7:30am, I opened the back door, as every other day, to let the dogs out, and saw my koi food containers strewn on the deck, covered with muddy pawprints. When I went to bed they were sitting neatly on top of the patio table. Then I noticed the cattails knocked over, their branches lying across the koi pond. YIKES!! It looked like a fight!

Before long I figured out it must have been a raccoon, considering all the trampled plants and the muddied tablecloth and koi food containers. Telltale footprints were everywhere. Definitely wasn't a cat and wasn't likely to be a squirrel doing all that damage. I checked and no fish were missing or harmed. It had spent a lot of energy trying to open the two Legacy food containers.... And left hungry!



Nitrogen Cycle



While there are products on the market to chemically remove ammonia from the water like our new MICROBE-LIFT Ammonia Remover, it is still desirable to eventually establish biological nitrification and save Ammonia Remover for occasional spikes. The advantage to establishing biological nitrification is that the bacteria adjust their population to the ammonia load except in the cases of rapid changes where they cannot respond fast enough. With chemical ammonia removers the chemical has to be continually adjusted to the ammonia load requiring more monitoring and measuring. The bacteria are just the better way to go. After all, they are the way nature deals with nitrogenous pollutants. Next time, the rest of the nitrogen cycle. Bet you can hardly wait. 🐟



**KOI SHOWS
COMING SOON!***

May 5-7, 2006

MPKS Spring Trade Show

Location: Darien Sportsplex, Darien IL.

For more details: Visit www.mpk.org

Sponsored by The Midwest Pond and Koi Society

June 22-25, 2006

Koi Across Niagara- 25th Anniversary

AKCA seminar

Location: Buffalo, NY.

For more details: NY - contact Marlene Hyden,

seminar chairperson @ 716-694-6977, or visit

www.nfkpc.org for show information.

August 25-27, 2006

Koi and Goldfish Show with a Trade Show

Location: Darien Sportsplex, Darien IL.

For more details: Visit www.mpk.org

Sponsored by The Midwest Pond and Koi Society

September 8-10, 2006

Koiphen 1st Annual Koi Show

Location: Gaylord Opryland Hotel, Nashville, TN

For more details: www.koiphen.com

** As the season begins, pond tours do also- for a club in your area, contact Carolyn at carolynw@microbelift.com for listing of clubs in the Water Garden Directory! If your club is having a show or event, let us know early so we can spread the word!!*

Alright, Why Should I Go To a Koi Show?

If you are reading this article, it means that you have picked up and opened this magazine, which also means that you've got at least a passing interest in ponds, fish, plants and the hobby in general. Many of you may have goldfish, some of you may have koi, and all of you have questions.

Questions like:

"What kind of fish is that?"

"Why is my water that funny color?"

"What is that smell?"

"Why are all my fish swimming upside down?"

"Where can I rent a bulldozer?"

If you're a little better at the hobby than that, questions about equipment upgrades, water testing, pond chemicals, fish health and access to better quality fish are more likely to be on your mind. A good-sized koi and goldfish show is the ideal place to go to find answers to all of these and more. They are gatherings of the most knowledgeable hobbyists in the area, who are there to exhibit the best fish in their ponds and compete for prizes. Also in attendance will be a wide variety of vendors, who provide services, equipment and livestock for the hobby. Shows will frequently sponsor seminars and speakers on a wide variety of topics which are open to all attendees.

What is even better, almost everybody present is, in one way or another, an enthusiast, and more than happy

to share experiences, solutions, disasters and help at the drop of a question. It is incredibly easy to get a water gardener talking. The hard part is getting them to shut up. Ask a question; present a problem, within an hour you'll have twenty suggestions and solutions. They may not all work for you, but every one of them has, at one time or another, worked for someone.

Koi shows are noisy, sometimes chaotic, invariably wet, and always fascinating fun. Come join us!

Bob Passovoy

President, MPKS



PHOTO CONTEST

ENTER TO WIN
one of 3 Prizes

1st Prize: Collection of Legacy Foods

2nd Prize: EZ Pond Starter Kit

3rd Prize: 1 gal. Dechlorinator Plus

IN THIS ISSUE WE ARE LOOKING FOR THE BEST PICTURE OF PONDS AND OTHER PETS, and explain how MICROBE-LIFT has impacted your life- SEND PHOTO AND ESSAY, 50 WORDS OR LESS, TO CAROLYN WEISE c/o Ecological Laboratories, Inc., PO Box 132, Freeport, NY 11520



HOW TO ENTER - OFFICIAL RULES

Entries must be received by September 1st to qualify. Print photos (no laser printouts or Polaroids, please) should have your name, address, phone number and email (optional) on the back. If you are sending digital images, please send them on or ZIP disks (no email submissions) at 300 dpi, at least 4x5 inches in print size, JPEG format. Please note that digital images that do not meet these requirements cannot be considered. Captions/info for any photos sent should also be provided; please tell us what's pictured. Winners will be announced on the www.microbelift.com website. All entries will become the property of Ecological Laboratories, Inc.

Microbe-Lift®'s Photo Contest, c/o Carolyn Weise, Ecological Laboratories, Inc., PO Box 132, Freeport, NY 11520 (photographs and slides will not be returned.)

Name of Photographer _____

Date of Photograph ____/____/2006

Address _____

Phone Number _____ daytime _____ evening _____

E-mail Address _____

Entrant will automatically be eligible for monthly newsletters.

2
WAYS
to
WIN



CUT HERE

Reader's Survey:

Enter drawing to WIN \$150 Toward Microbe-Lift® Products!

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 your **largest** pond or water garden?
Length _____ Width _____ Depth _____ Gallons _____

5. In which of the following are you primarily interested? (check all that apply)

- | | |
|-----------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Plants | <input type="checkbox"/> Landscaping |
| <input type="checkbox"/> Fish | <input type="checkbox"/> Equipment for your pond |
| <input type="checkbox"/> Filtration | <input type="checkbox"/> Predator Protection |
| <input type="checkbox"/> Water features | <input type="checkbox"/> Education about your hobby |

6. Which of the following water garden oriented magazines do you read regularly?

- | | |
|------------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Water Gardening | <input type="checkbox"/> Pond Boss |
| <input type="checkbox"/> Aquascapes Lifestyles | <input type="checkbox"/> Koi USA |
| <input type="checkbox"/> Ponds USA Annual | <input type="checkbox"/> Ponds Magazine |
| <input type="checkbox"/> Koi World Annual | <input type="checkbox"/> Mid-Atlantic Koi Magazine |
| <input type="checkbox"/> 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)

- | | |
|-------------------------------------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> My Microbe-Lift dealer offered it to me | <input type="checkbox"/> Saw it advertised online. |
| <input type="checkbox"/> A friend told me to look for it | <input type="checkbox"/> Just happened upon it |
| <input type="checkbox"/> My (koi or water garden) club talked about it. | |

Name _____ *Email _____

*Note: This is privileged information and will not be offered, sold or given in trade to any outside institution or establishment. Your privacy is guaranteed. The sole purpose of your email address is for the distribution of a monthly newsletter. You may unsubscribe at any time.

ENTER TO WIN
\$150 Toward
Microbe-Lift®
Products!

HOW TO ENTER:
Please remove or
copy this survey
from the magazine
and mail it to:

Carolyn Weise
Ecological Laboratories, Inc.
PO Box 132
Freeport, NY 11520
or Fax to 516-379-3632

MICROBE-LIFT®

GEL BACTERIAL FILTER PAD & MEDIA INOCULANT

product comes in
an easy-to-use
**FLIP-TOP
SQUEEZE
BOTTLE**



- All Natural
- Nontoxic
- Non Caustic

PL/GEL is a technological breakthrough because it is the first product that puts the bacteria right where you want it and it stays there!

PL/GEL will quickly attach to and populate any filter media including: foam, strapping, floss, bio-balls, ceramic media, etc. This will help rapidly establish the necessary biological activity in your filter to stabilize your pond's environment quickly. It will also help to restore this activity to your filter when you clean or change the media in your filter.

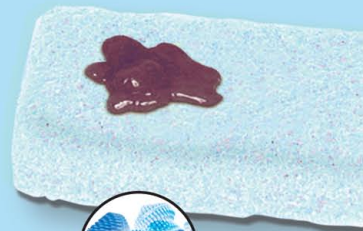
- Easily applies to filter pads/media without running or getting messy
- Contains the same spectrum of bacteria found in **MICROBE-LIFT/PL**
- Contains naturally occurring bio-polymers that help the organisms quickly attach to media allowing for 80% reduction in filter start-up time.
- Helps to stabilize pond environment quickly upon startup and to eliminate transient instability that can occur when filter media is cleaned or replaced.
- Allows for more frequent cleaning of filters without subsequent instability if a pond has a high solids load where frequent cleaning is beneficial
- Reduces the frequency of cleaning by accelerating the breakdown of organic solids that can lead to high maintenance requirements.
- Helps to establish denitrification in the filter which can lower nitrate levels in the pond.

Application

Inoculate (spread) **PL/GEL** directly to your filter pad or media. The **GEL** will absorb into the pad/media by letting it set for one to two hours before inserting back into the filter or skimmer. After insertion, turn off recirculating pump for one to two hours, providing water can maintain adequate oxygenation without circulation for this amount of time.

Maintenance

Repeat application of **PL/GEL**: each time you clean or replace your filter pads/media; when nitrate levels exceed 0.6 mg/L; or as necessary to maintain optimum performance from your filter or skimmer.



Bio Rings



Biological Pinballs



Biological Mini Pads

Also may be used with Spring Flo, Bio Filters and other filter media, pads & cartridges.

 **Ecological Laboratories** INC.
Solving Environmental Problems Since 1976

For more product information please visit our website: www.microbelift.com



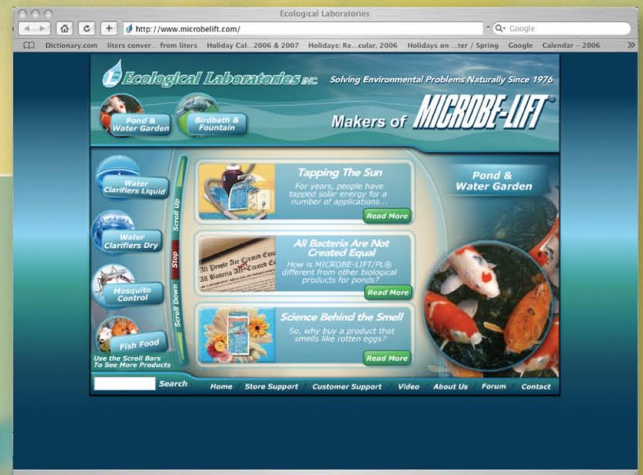
MICROBE-LIFT®

visit us at
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.

Some features of our new website are:

- Informative DVD presentation of MICROBE-LIFT products guides you in becoming an educated consumer!
- Calendar of National KOI and Water Garden Events to look for!
- New Nationwide MICROBE-LIFT Dealer Directory!!
- Free Monthly e-mail newsletter with timely subjects and articles from KOI vets and aquatic plant experts!!
- On-line POND FORUM!!!
- Pondkeeping 101!



Solving Environmental Problems Since 1976

 **Ecological Laboratories** INC.

215 North Main Street
P.O. Box 132
Freeport, NY 11520

Where Do You **SHOP** for Pond Supplies?

By Carolyn Weise, Ecological Laboratories, Inc.

Speaking honestly, I don't know about you but I have a problem with misinformation. I am not saying that I don't impart my own share of wrong information from time to time, either by not paying close enough attention to the person talking or by simply being inexperienced. But when a consumer has a fish crisis and seeks out help from a mass merchant and finds the sales person does not even know what a koi is, I wonder why people would shop there in the first place. I expect, somehow in the corners of my mind, that store personnel are astute and trained to meet consumer needs. I must really believe that they should know how to direct consumers in caring for fish, plants and ponds. Does anybody remember Ed's Aquarium? Those people really knew fish! You could ask them anything about tropical fish and they would give you the absolute in depth knowledgeable information, and how to remedy the situation post haste. I loved Ed's Aquarium... It was a small store, albeit a chain of small stores, which catered only to the fish hobbyist. They epitomized the Independent Dealer of today.

I suppose this is the reason for Ecological Laboratories, Inc. taking a stand against "Box Stores" that sell everything from soup to nuts but specialize in nothing of interest to the pond hobbyist. When seeking products, especially products new on the market, I want the store personnel to hand me information too. I want to be an informed customer. I care about my pond and my koi, and I deserve to have somebody take a few minutes to tell me about new and better ways to care for them. (Garden stores and fish vendors have much more to offer than Home Depot, Lowes, Target, Wal-Mart, etcetera,

when it comes to knowledge about water gardens and koi ponds, let's face it.)

That's right, Ecological Laboratories, Inc. (MICROBE-LIFT) won't sell to the box stores. You will only find MICROBE-LIFT products on the shelves at your local independent dealer.

We need to support the people who can really support our hobby. The new www.microbelift.com website offers a Nationwide Dealer Directory to help you find informed specialists in your area. And in my own effort to reproduce the Ed's Aquarium information center for you, I am sending out a monthly e-mail newsletter with timely subjects and articles from Koi vets, pond enthusiasts and aquatic plant experts. The new website also offers a pond forum for everybody to share their pond and koi experience and obtain up-to-the-minute information in return.

We have an informative DVD presentation of our products because an educated consumer is our best advocate. You can't say it doesn't work if you haven't tried it.

I don't see Ed's Aquarium around anymore, and I still miss it, but I do know where to find the right fish care products, and it's not at Home Depot, Wal-Mart, Target or the rest. You can use our website to find a better store for your pond needs...

Pond Shui™ - Carolyn

this
magazine
is brought
to you by your
**INDEPENDENT
retailer**



check out our
FREE
monthly
e-newsletter

To receive your monthly e-Newsletter with exciting and educational articles by prominent authors in the water gardening field, simply email info@microbelift.com or just go to www.microbelift.com and submit your email address on the home page.

In addition, you will receive your discounted product coupons by mail, redeemable at any participating MICROBE-LIFT dealer in your area as a thank-you from us at Ecological Laboratories, Inc.!

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