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April, 2022

By the Pond

Hi All,

The auction is going to be held on April 30th. If you plan on selling fish you will need to register for a tank or tanks. There is a limit of 2 tanks per household. Please follow the sellers link on the web-site: <https://atlantakoiclub.org/wp-admin/post.php?post=30&action=edit>

As you know, this is our major fundraiser for the year and in order to have a successful auction, we need people to volunteer to help. The Sign Up Genius can be found here: <https://www.signupgenius.com/go/4090445a5a629abf49-2022> Kyle Barry is our new volunteer coordinator and as soon as I get her all the Sign Up Genius info she will be managing the sign up. This will be her first event as volunteer coordinator so make it easy for her by signing up please.

If you have any questions, please respond to this email.

Thanks,
Diane

A suggestion for using Sign Up Genius

Before using Sign Up Genius, it is necessary to create a Sign Up.

Your name must be registered (free) before you can add your name to the sign-up list. Otherwise, if you just add your name, it doesn't get saved.

To register, click on the box at the top right of the face page which says "Create a Sign up". After registering, you can just log in at that same area, and your name will be saved.

And now, a message from our Vice President, Marlon Tiller

Good Afternoon All,

I'm sure we are all very excited to get back to our in-person meetings, see familiar faces and welcome new ones! With that said, if any members would like to volunteer to host a meeting at their home AND/OR speak during a meeting, please reply to this email. Are you passionate about a particular topic or aspect of the hobby? Share your knowledge and enthusiasm with your fellow members!

We are looking for speakers and locations for the following 2022 meeting dates:

- ✦ **April 10 No meeting due to upcoming Auction**
- ✦ **May 7 at the Koi Store. Details to follow later**
- ✦ **June 11 at 6PM (Board meets at 5PM)**
- ✦ **July 16 – Summer Social at 6PM (Board meets at 5PM)**
- ✦ **August 13 at 6PM (Board meets at 5PM)**
- ✦ **September 10 at 3PM (Board meets at 2PM)**
- ✦ **October 2 – Elections – It is very important for everyone to attend.**
- ✦ **November 12 Winter Social at 6PM**
- December – No meeting. Happy Holidays to all!**

Thank you for any assistance provided,

Marlon Tiller
Vice President
Atlanta Koi Club

Below are some pictures of our meeting at AW Pottery on March 20th. If you mention that you are an AKC member, you will receive a discount on your purchase.

Rhonda Eubanks



Rumor has it that Harvey Siskin, has a palm tree that he has available. If you want it, please contact him. His name is on our address list.

**Oyama Tosai Koi Event –
Showa and Special Kwarigoi Sale with grow out options!**



Date: May 7th, 2022

- | | |
|--|---|
| 9:00am – 10:00am | Gathering time |
| 10:00am – 10:30am | Zoom meeting with Ryuichi Yoshida owner of JPD koi food |
| *Ryuichi will share the history and current attributes of the Oyama Koi Farm | |
| 11:00am – 3:00pm | Koi sales |
| 3:00pm - ? | Food and drinking time |

3 pickup options –

1. Take koi home
2. Keep here for up to 30 days
3. Put in mud pond from June to September

Mud Pond:

Mud pond fee - \$100/koi

Insurance (if desired) is 10% of koi cost and covers the loss of koi



Koi Food Club Buy Opportunity

The Koi Store is offering the club a group buy opportunity on koi food. They are offering a 10% discount off of their regular prices so, for example, food that is regularly \$5.00/lb is \$4.50/lb during this opportunity! Pricing is as follows:

Koi food club buy...

▪ <u>6.4mm Floating</u>	<u>\$5.00/pound</u>
▪ <u>4.0mm Floating</u>	<u>\$5.00/pound</u>
▪ <u>6.4mm Sinking</u>	<u>\$5.00/pound</u>
▪ <u>4.0mm Color Floating</u>	<u>\$6.00/pound</u>

All available in 10, 20, or 40 pound bags

Packaged in resealable mylar bags

10% discount for club buy

Deadline for placing and paying for the order is April 20th

The nutrition info/ingredient statements are as follows:

4mm & 6.4mm Floating & 6.4mm Sinking

Guaranteed Analysis

Crude Protein (min).....	44.0%
Crude Fat (min).....	10.0%
Crude Fiber (max).....	5.0%
Phosphorus (min).....	1.0%
Ash (max).....	12.0%

Ingredient Statement

Fish Meal, Wheat Flour, Soybean Meal, Fish Oil (Preserved with BHA and BHT), Blood Meal, Poultry Fat, Soy Lecithin, L-ascorbyl-2-polyphosphate (source of Vitamin C), Choline Chloride, Vitamin E Supplement, Niacin Supplement, d-Calcium Pantothenate, Riboflavin Supplement, Thiamine Mononitrate, Biotin, Pyridoxine Hydrochloride, Folic Acid, Vitamin A Supplement, Vitamin D3 Supplement, Vitamin B12 Supplement, Manganese Sulfate, Zinc Sulfate, Ferrous Sulfate, Copper Sulfate, Sodium Selenite, Potassium Iodate, Propionic Acid (Preservative)

4 mm Color Floating

"Guaranteed Analysis

Crude Protein (min).....	44.0%
Crude Fat (min).....	10.0%
Crude Fiber (max).....	5.0%
Phosphorus (min).....	1.0%
Ash (max).....	12.0%

Ingredient Statement

Fish Meal, Wheat Flour, Soybean Meal, Fish Oil (Preserved with BHA and BHT), Blood Meal, Poultry Fat, Soy Lecithin, L-ascorbyl-2-polyphosphate (source of Vitamin C), Choline Chloride, Vitamin E Supplement, Niacin Supplement, d-Calcium Pantothenate, Riboflavin Supplement, Thiamine Mononitrate, Biotin, Pyridoxine Hydrochloride, Folic Acid, Vitamin A Supplement, Vitamin D3 Supplement, Vitamin B12 Supplement, Manganese Sulfate, Zinc Sulfate, Ferrous Sulfate, Copper Sulfate, Sodium Selenite, Potassium Iodate, Propionic Acid (Preservative)

****The color food is the exact same analysis as our growth food, except the added ingredient Astaxanthin is a red pigment that belongs to a group of chemicals called carotenoids. It occurs in certain algae and causes the pink-red color in salmon. Astaxanthin is an antioxidant. This effect might protect cells from damage. Astaxanthin might also improve the way the immune system functions****

!The color food is used to boost color, not to be used exclusively. It is only a supplement!

Marlon Tiller is coordinating this for the club. Please let Marlon know what you would like to purchase before April 20th. Please note that orders must be in 10 lb, 20 lb or 40 lb increments. You can order any combination of those amounts – for example – 10 lbs of color food, 20 lbs of sinking food and 40 lbs of floating food. Carl will be able to bring the food to the auction on April 30th. If you are going to be at the auction you can pay there. If you are not going to be at the auction you will need to send Marlon a check made out to the Atlanta Koi Club as the club is going to make one payment to The Koi Store. Marlon can be reached at mrtgtiller@gmail.com. This food comes highly recommended by top hobbyists and is a great opportunity for club members. Reach out to Marlon with any questions.

FROM THE POND GUY

Is it time to start feeding the fish? They look hungry.

Talk about feeling hungry! If your fish are actively (or anxiously!) swimming around your water garden, nibbling and tasting your budding plants, and gazing at you forlornly as you eat your peanut butter sandwich pondside, it sounds like your finned pals are ready for some grub after their long winter fast.

Signs like these are telling, but to make sure your fish are ready to start eating regular food again, here are some guidelines to follow.

Take Your Pond's Temperature

Last fall when water temperatures fell below 40 degrees Fahrenheit on the thermometer, your fishes' metabolisms slowed way down. For the next few months, they rested in a hibernation-type state when they fasted and lived off the fat stores in their body. They needed no food from you – in fact, feeding them when they're hibernating can make them very sick. Once spring has finally arrived and the sun has warmed your pond's water to 50 degrees F, your fishes' metabolism has kicked back into gear. They're swimming around and searching for food to fuel their increased activity levels. Begin feeding your fish up to 3 times per week, and only what can be consumed in a 5 minute period. They will need a wheat germ food that's easy to digest. Packed with plant-based nutrients, the diet will satiate their hunger, and stimulate growth and fertility.

Pump Up the Protein

Late spring and summer bring even warmer 50 degree-plus water temperatures, and that's when you can switch your fishes' diet to one that will help them develop and build some serious bulk. If growing big koi and goldfish is your goal, feed your scaled friends a high-protein diet that includes ingredients that will make their colors pop. Check the Forecast Mother Nature has fun with weather – particularly with temperature fluctuations in the spring – so be sure to check the long-term forecast before you start feeding your fish on a regular schedule. Ideally, the weather should be consistently keeping the water a warm 50 degrees F. At that point, feed slowly to make sure they're consuming the food at a steady pace and increase the amount as they're ready.

Happy feeding!

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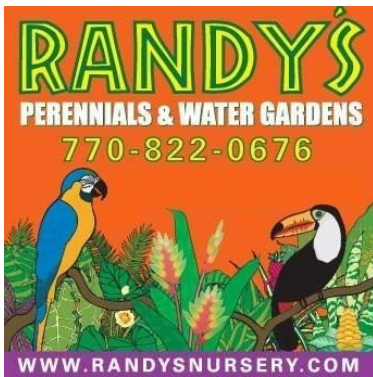
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AQUA
(Logo to come later)

For our newer members who are unfamiliar with preparing your fish for transportation to the Fish Auction, following is a reprint of our article from a recent Newsletter.....)

Koi Transportation

(How to Move Koi from here to there)

by H. Gene Ewy, MD

Reprinted from the AKCA 17th Annual Seminar
(Reprint from an Atlanta Koi Newsletter of 1998)

Koi Isolation and Handling

When a koi hobbyist wishes to closely inspect or move koi from a pond, the specific koi must be isolated and guided to a specific container. A good quality koi net with knotless fine mesh and the circular frame totally covered is commended to minimize the risk of damage to the koi. The bay depth should be shallow. The koi net should be as large as possible (depending on the size of the koi) though large nets are more difficult to move through the pond water, particularly if the net has a telescopic handle and it is extended.

Take it easy, don't get the koi or yourself agitated. Don't agitate or stress the remaining koi. It's risky to approach the koi from the tail, as the caudal fin may be damaged while the koi responds vigorously to the net touching its tail. Minimize the net contact with the koi. Ideally approach the koi from the front, getting the net under its head and gently guiding it into a floating tub or tank.

One advantage of the koi net is that a single person can guide the koi into a floating tank. The rim of a large koi net (guiding a koi to the floating tank) is used to submerge an end of the floating tank. The koi is then guided into the floating tank. This maneuver is easier if a second person appropriately submerges the floating tub or tank. A single person can also bring the koi in the net adjacent to a floating tub or tank. The net is controlled by one hand which has been advanced on the pole to a position near the net. The floating tank or tub is submerged with the other hand and the koi is gently guided into the container. Don't lift the koi from the water with the net, particularly larger koi.

Koi can be collected from a smaller pond readily in the manner described with a koi net. A telescopic pole will allow the net to isolate koi in a larger pond. If this is not practical consider PTTN - patience, time and two nets. The second koi net handler gently guides the selected koi into the koi net of the primary handler, who guides the koi into the tub floating tank.

If your pond doesn't lend itself to any of the above methods, a seine may be used to partition the pond into areas from which the koi may be collected. The mesh of the seine should be knotless. The seine should be longer than the width of your pond. The width of your seine should be greater than the depth of your pond. The seine should have floats the top and weights at the bottom. Koi are not lifted with the seine.

Koi Handling - Short Distance Moves

The koi that have been isolated and guided to a container are ready to be moved. This can be accomplished in a number of ways. If the koi is in a tub in the pond with enough water in the tub to cover the koi, the tub containing the koi can be lifted from the pond. The tub or other container in which a koi is being carried should be covered. A mesh cover, a solid cover or plastic bags on the surface of the water can be used. The container with the koi can be carried by hand, placed on a cart and wheeled, or the container itself may be on wheels. The koi should be transferred promptly to the destination water isolation tank, show tank, etc.).

Koi sock nets are open ended fine mesh nets attached to a circular covered frame with a relatively short handle. The net is much longer than the diameter of the opening (42 inch sock net with an 11 inch diameter opening as an example). The koi is brought through the opening of the net head first by carefully advancing the net over the head of the koi or by manipulating the head of the koi into the net with your free hand. the koi is positioned in the body of the net, the end of the net is closed by one and of the holder, the other end of the net is folded over) retain the koi, the hands are held tightly tautly apart as the koi is lifted from the water and transferred for hopefully only a short distance. A head first exit of then koi from the sock is preferred to avoid unlikely, but perhaps possible, fin or scale damage. Some mucus may be lost from the skin. This is a safe method to distance move koi short distances.

I prefer to use plastic bags for most short moves. Double plastic bags (one bag inside another) should be considered particularly for larger koi for safety. Three mil and four mil bags are quite strong. Bag size depends upon the size of the koi. Fish should be carried horizontally. Small fish may be carried in the small end of the plastic bag with the bag held upright. Large koi may need to be carried with the bag horizontal and held tautly between both hands. The largest koi may need to be carried by two handlers.

The top edge of the plastic bags should be rolled over. This results in a large relatively fixed orifice which frees one hand that can be used to direct the koi head first into the bag. Some pond water should be in the bag when the koi is gently introduced. There should be enough water in the

bag to cover the gills of the koi as the bag is carried to its destination. A head-first exit from the bag is ideal but I think the smooth plastic surface allows a tail first exit with negligible risk if done carefully. If the opening into the bag is large enough the koi can be lifted out by hand. For a short move without adding transfer water to the destination tank consider transferring in a plastic bag with a corner cut out to drain the water.

I have noted from a UK publication (Koi Health Quarterly) an instance of torn plastic bag from the dorsal fin of a koi. From both a UK publication (Koi Kichi) and a Japanese publication (Rinko) recommendations are made to remove a palpable 'hook' on anal fins of larger koi which may tear a plastic bag. If this could happen it would be an added reason to double or triple bag larger koi.

Moving koi by hand is best reserved to transfer koi from one container to an immediately adjacent container. Koi have a slick slime coat, they may be quite active, and they can be dropped. Dropping koi is not recommended. The handler's hands should be thoroughly wet. No hand-held jewelry should be worn. The koi may resist movement in a direction that it is not going and become agitated.

If it is difficult to place your hands under a larger koi in the proper position for support of the koi during transfer, considering taking advantage of the temporary disorientation produced when rotated in a clockwise or counterclockwise direction for a few turns. If going clockwise, the handler should place his right hand across the left hand and shoulder area and support the under surface of the Koi just back of the head with his right hand when the Koi is facing at eleven or twelve o'clock. Continue the clockwise rotation with the right hand, place the left hand under the posterior aspect of the Koi when the head is at four to six o'clock. Lift the Koi from the water. Bring the head close to your body for control, move your hand with the Koi if it moves as you deliberately and promptly transfer the Koi into the adjacent container.

Preparing Koi for Transportation

Stress during Koi transportation should be minimized as much as possible. Stress may lessen the effectiveness of the Koi's immune system. The possibility of infection or other health related problems which could be transmitted to other Koi in your pond is enhanced.

Koi should not be fed at least three days and possibly seven days before transport. The production of ammonia during transport is reduced and the transport water is not polluted to the extent that it would if the Koi had been fed during the fasting period. Koi may be eating algae from the pond wall during the fasting period when they are not fed. If an isolation tank with an adequate water volume and an active biological filter is available the Koi could be in this tank at least during the last part of the fasting period.

Additives to the isolation tank water could be salt, mineral salt or various medications. Be accurate and do not over-medicate.

There will be less stress when the Koi is in a dark environment during transport. Transport water can be cooled to reduce metabolism. Mild sedation should be considered.

Long Distance Transport

In general, Koi may be transported for many hours safely in plastic bags or rigid containers. The development of the plastic bag had an immense impact allowing safe worldwide Koi transportation.

Transporting Koi in Plastic Bags

It's time to get physical again. We're going to put our Koi in plastic bags for transport. There is a wide choice bag size and thickness. The bag should be longer than the rectangular corrugated Koi box or any other container into which the bag will be placed. This allows secure closure of the bag, using most of the length of the box.

Double plastic bags should be used placing one bag inside the other. Large Koi transported long distances by airplane within the USA or from overseas may be within the inner bag of three to five bags. It is helpful to roll the mouth of the bag down before placing the Koi into the plastic bag.

This produces a relatively fixed opening and keeps water from going between the bags. Put some water from the pond, or water prepared specifically for the transport, into the bag.

The Koi is put into the bag by hand transfer or by using your free hand to direct the Koi into the bag. Usually one koi 18 to 20 inches in length is placed in a bag, perhaps two 5 to 18 inch Koi are placed in the same bag, etc. The gills should be covered with water, I prefer to add enough water so that the Koi can float, and not rest on the bottom of the box.

Some hobbyists and dealers put additives in the transport water. This includes such things as salt, mineral salt, anti-parasitic medication, antibacterial medication, etc. If you choose to do so, do not overdose. Prepare the transport water accurately and add it to the bag. Transfer the fish into the bag by hand, sock net, or bag with a corner cut out to drain the pond water from the bag so that the mineral water will not be added to the transport water. The transport water will not be significantly diluted.

The bagged Koi is placed in a corrugated rectangular Koi box, Styrofoam box, polystyrene box, ice chest, etc. The length of the box is usually two times the width or height. The width and height are normally similar.

Newspapers are often placed in the bottom of the Koi box for insulation. I won't say that Japanese newspapers are best, but the Koi I have received directly from Japan have been calm and happy.

Look closely at the bagged Koi in the transportation box. If water needs to be added or removed, do so. Remove all air from the bag by carefully compressing the bag down to the water level. Pleat the plastic bag near the mouth of the bag so no air reenters the bag. Insert the hose from the regulator (attached to an oxygen cylinder) through the mouth of the bag. Slowly fill the bag with the pure oxygen to about three fourths full and withdraw the hose. Twist the neck of the bag closed so that no oxygen escapes. Fold the neck of the inner bag over and secure it with rubber bands tightly placed over the folded neck. Use two rubber bands for safety. Seal the outer bags in sequence in the same manner. Insulating material (usually newspapers) is placed over the bag in the box and the box is sealed.

If one wishes to gradually lower the water temperatures in the bag during transit, place frozen reusable freeze packs on top of the bags before the newspaper insulation, support the bottom of the cardboard box when it is being carried.

Place the transport box or other container holding the bagged Koi in transport vehicle sideways to the travel direction. Braking during transit would then move larger Koi sideways and would not bang their nose or tail against the end of the box.

Moving Koi in Transport Tanks

The other common method of moving Koi long distances is in transport tanks. Many varieties are used: 1) flexible liners such as vinyl coated industrial fabric liners in a rigid frame made from PVC, tubular steel or other material, 2) polyethylene tanks, 3) fiberglass tanks, etc. The tank must have a secure cover to retain water and the Koi. The zippered covers with vinyl tanks allow easy closure and access. The size of the tank is determined by the type of vehicle and the amount of weight that can be safely carried in the vehicle. Water weighs over eight pounds per gallon and there are seven and a half gallons in a cubic foot of water.

My transport tank for a station wagon measures 3 foot by 4 foot wide, and is just over 18 inches high. Usually we carry 10 inches of water, which is 75 gallons weighing 625 pounds. Obviously transport tanks in trucks can be much larger, carrying more water and fish. All tanks must be stabilized so they will not shift during transport.

The transport tank water should be oxygenated before Koi are added and the dissolved oxygen in the water should be maintained at about 8 parts per million, or over. Pure oxygen can be diffused into the water easily using an oxygen tank with a regulator through an air stone or a fine pore diffuser for pure oxygen. The advantage of a fine-pore oxygen diffuser would be a smaller bubble size (approximately 0.5 to 2 mm diameter) which would increase the total surface area per unit of oxygen. Oxygen saturation is maintained with a slow flow rate. This system is used worldwide with great success.

Air, which is 21% oxygen, can be introduced into the water through an air stone (approximately 1 to 3 mm diameter bubble size). The flow rate would have to be significantly higher than the flow rate of pure oxygen to maintain the same oxygen level in the water. The source of air could be from a 12 volt portable piston or diaphragm compressor operating from the car or truck battery during transit. An adapter from the cigarette lighter socket is used. If the tank is to be aerated for some time when the power source is not from the vehicle's 12 volt battery, a 12 volt marine or deep cycle battery (larger capacity) could be used as the power source.

Members of the Louisville Koi Club have developed and use a nice transport tank system utilizing a 12 volt submersible bilge pump which pumps about 500 gallons of tank water per hour through a spray bar through aeration. They have kindly shared this system with a number of Koi hobbyists.

Why and How We Should Quarantine

(From Atlanta Koi Club Newsletter— 1995)

Spring is in the air, birds are chirping, and the fishies are up. As every red blooded Koi Kichi person is contemplating, "What fish should I get next"? We have an Auction and Sale coming up very soon and there will be some keepers there for us to add to our collections.

Before you take that new Hi Utsuri home we need to talk about the Big Q. That's right Quarantine. Quarantine is the best known method to reduce disease introductions. You gotta do it. There are several reasons to quarantine "ALL" new fish. Here are a few for consideration:

The new fish "WILL BE STRESSED" and very susceptible to disease and parasite attack.

Second, you do not want to subject your collection to an outbreak of any kind that the new guy may bring to your pond.

Third, even though your pond is very clean of what you think are all those bugs you don't have, the new little fishie has not been subjected to whatever you have living there. On top of the stress of the auction, the ride home in a plastic critter receptacle, the new surroundings, and if you just float the bag and drop it in, utsuri will not be given the best chance for survival. We want the best chance to survive.

What is a Quarantine Tank?

Ideally, you want a tiny little version of your pond. You will need to have a pump, filtration, aeration, a net to cover the tank, a small aquarium heater, and do not forget to conduct water changes often, along with religious daily testing. Things you utilize for you Q tank "SHOULD NOT BE USED" in your regular pond. (Cross Contamination and stuff). What size tank you say. That depends on how many fish you buy at the auction and how big they are. In a pinch, a 50 gallon garbage can will do (cleaned and disinfected of course). Most feed and seed stores here in the south sell Rubbermaid 100 gal feed tanks fairly cheap (\$73). Larger containers of course are better depending on the size of your new fish. You can even put small fish into a 30 to 40 gallon aquarium. Whatever works. The Important thing is that you have near-perfect H2O conditions all the time.

What Kind of Filtration?

The filtration need not be sophisticated. Small filters can be obtained from most pond supply dealers. It should have a mechanical section to filter solids, and a biological section to clear ammonia, and convert nitrites and nitrates. The tricky and time consuming part is to have a cycled filter before your fish get home. Think about adding some filter medium from your existing pond. Many hobbyists run their Q tank all the time to keep the filter cycled just in case they just cannot live without that sanke in the window.

Adding a pond fish to the Q Tank.

It has been proven that a good practice is to place one or two small koi from your pond into your Q tank to help cycle the filter and to introduce your pond conditions to the new fish. Use one that you would not mind losing just in case.

How Do I Treat The New Fish?

Once you get home with your new additions, again do not get into a big hurry. Don't start throwing a lot of chemicals on top of your very stressed-out, new and expensive fish. When you get the fish home, float the bag for at least 30 to 45 minutes before you add to the tank. Do not dump the bag contents of ammonia, poop laden water into your pristine Q tank. Have a cover for the tank to protect from jumpers and you may even want to float a large piece of Styrofoam to give a hiding place for the fish. (It makes them feel warm and cozy)

LET THEM REST for a few days. Observation of the new arrivals is a very good practice. The tank should start out with a very light salt load if any. May be less than .1% and then over the next week or so push the salt up to .3%. If you plan to treat with Proform C, salt will need to be zero. Please don't dump the salt into the tank and risk burning your fish. If rock salt touches their skin it will burn. Dissolve the salt in a bucket and distribute around the tank very S-L-O-W-L-Y. Do not feed for the first two to three days. When a fish is under stress they will expel the food not utilize the food for nutrition. Let the fish adjust first, they won't starve.

If you do not have a microscope to check for parasites and treat specifically, we must assume they have everything. Doc Johnson has a "Shotgun Treatment" that he recommends that won't hurt the fish. This is his recommendation slightly modified.

(1) Temperature should be 72 to 78 degrees in quarantine. Warm the fish no faster than one degree per hour, up to the mid seventies, or if you want to combat Koi Herpes Virus, use the same "one degree per hour" heating from their ambient temperature up to 86°F for four days with seven days being better. Heating your fish to 86 degrees will also kill Ick and ends bacteria overgrowth. Make sure you have plenty of O₂ in warmer water.

(2) PH must be buffered. Small Q tanks are subject to PH crash. (Check Daily along with ammonia.)

(3) After two to three days and if you wish to treat with the broad spectrum Proform C, treat per instructions. 24 hours after the last Proform treatment then treat with salt.

(4) Salt to 0.3 to 0.6% over a period of several days.

(5) Feed Romet or Medikoi food. It will help control bacterial infections. (No longer sold- ed)

(6) The Q tank can be treated with Dimilin, even with salt, to handily control comparatively rare but large parasites like Anchor Worms and Fish Lice.

(7) Prizi or Prazi containing medications control of Flukes on Koi. A Formalin treatment on the way into the quarantine where the above will be applied will break the lifecycle of Costia and prevent it emerging in the quarantine tank.

(8) Small and numerous Water Changes are a definite requirement.... 10 to 15% every other day, maybe. (Don't forget to replace the % salt after the water change)

Finally, Quarantine should last for at least 14 to 21 day after you complete treatments, so long as with water changes the water quality can be properly supported. Watch your fish for signs of stress or disease during the process.

Quarantine is an essential part of our hobby. Enjoy!

Koisan Joe

Spring Concerns

By Chris Neaves, K.O.I. Instructor

Courtesy from KOI Organisation International

Koi care in spring is probably one of the most difficult times for Koi keepers, because most losses occur during this time.

The variations in winter temperature is such that it is hard to give generic advice that will be applicable to all. The fact remains that whatever the winter temperature, the problems experienced by Koi keepers in spring remain the same. The temperature sensitive bodies of the Koi are going through the same cycle per season and per year, regardless whether the temperature ranges are extreme or mild. It is almost as if Koi are genetically programmed to go through a resting period.

A friend of mine, while still residing in the North Coast of KwaZulu Natal, was very keen on showing Koi. His modus operandi was to buy batches of the best Tosai that he could find and then grow the lot of them on in a special pond that was built specifically for this purpose. This growing on pond also served as a long term quarantine pond for the young fish to guard against any possible disease. He would then release the best fish for showing purposes in his main pond and pass the rest on to hobbyists. The pond was equipped with a heater, protein skimmer, sand filter and an over-designed biological filter. A waterfall and air pump provided the oxygen. The temperature was maintained at 24 degrees Celsius (75 degrees Fahrenheit) to ensure optimal growth of this Koi. The result was the same every year. Like clockwork, parasites and the resulting ulcers will appear in the middle of November (early summer, late spring). Needless to say my friend was utterly dismayed because some of his future hopefuls were ruined and not suitable for showing in future.

Every year was the same old story. I will do the water tests, scrapes for parasites, inspecting the filters etc. Every year we found the same results. The checklist confirmed clean filters, impeccable water conditions, fresh food etc, but there were a cocktail of parasites present.

In my experience with koi and disease treatments over many years and in many ponds, I have never seen an uneventful spring/early summer if koi collections have been subjected to stress during the winter such as overstocking, where new additions have been added to a pond or where a new environment has been created by moving collections to new ponds or doing major alterations to ponds during winter time.

Although not all the under mentioned will manifest itself in every pond, the following are the most common problems experienced during spring:

Green water

Green water may actually appear any time of the year but it is most prevalent during springtime. Mostly the appearance of green water is only harmful to the ego of the hobbyist. The Koi enjoy it!

Some of the reasons for this bloom by suspended algae are the following:

The rotifers that feed on suspended algae have died off because their food supply has dwindled during the relative algae free winter months. These plant-eating organisms will only multiply to sufficient numbers to control algae once the food source (algae) has established itself.

The tube of the ultra violet sterilizer needs replacement.

Accumulation of Nitrates over the winter months, and a rise in temperature may act as a trigger for the algae to multiply.

High ammonia/nitrites

At very low temperatures, the biological activity in the filter system has slowed down considerably and the water parameters will fluctuate until the required balance is restored. Contrary to what is believed, Nitrifying bacteria do not die off during cold water conditions, but like the other pond inhabitants go into a state of inactivity. The nitrifying bacteria responsible for converting ammonia to nitrite are the first to respond. The bacteria that convert nitrite to the more harmless nitrate, always lags behind and a window period for a nitrite spike will then occur. The increased feeding rate that automatically follow the arrival

of spring, also contribute a sudden increase of ammonia. In subtropical and tropical climates however, the threat of high ammonia/nitrites are not so high.

Parasites

One of the golden rules in keeping Koi is to remember that you cannot get a Koi to be parasite free. Medication that will kill all parasites will inevitably also kill the fish.

Most parasites flourish and multiply in warmer water conditions. In cold water, these organisms do not just cease to exist. They are always present on fish and wait for conditions to improve. The improved conditions can include an increase in temperature and anything that may stress the Koi like temperature swings, dirty filters and bad water conditions. The exception is the dreaded Costia. Costia remains active even in the coldest conditions and must be guarded against!

Bacterial problems

During spring, the water starts to heat up and the first activity will be at micro level as bacteria have simple structures and can respond quickly to the change in environment. Although experts differ on the exact temperatures, most agree that Koi are most susceptible to disease between the temperatures of 8.3 and 16.8 degrees Celsius (about 45 to 60 degrees Fahrenheit). Below 8.3 degrees Celsius, one can say there is a ceasefire in the pond. The Koi's immune systems are not functioning, but the pathogens are also not very active. Below 16.8 degrees C, the immune system of Koi is not fully functional but the pathogens are relatively active. Above 16.8 degrees Celsius, the immune system is again functional, and can normally reduce the pathogens, provided the Koi is not already in a weakened state. The critical range, described by many authors on immune systems, as "Aeromonas alley," is the range over which the pathogens are active but the Koi's immune system is compromised. Koi with a compromised immune system, regardless of the cause, will be less able to adequately fight disease. Combined with a cocktail of parasites as described earlier, it may prove fatal to Koi.

Dropsy

Although it is also a bacterial problem, dropsy is mentioned separately because regardless of the pond and water condition, it is a very common to lose one or two Koi in spring due to dropsy.

Summary

To summarize the above, one can say that although the Koi may have seem healthy going into winter, there is a definite chance that they were carrying a low number of parasites. Many Koi change hands during all seasons and even if a Koi has been quarantined, pathogens may come into ponds and only wreak havoc during spring. When in low temperatures the immune system of a Koi is at its lowest, as well is the parasite activity. But, as the water warms, bacteria and parasites become active quicker than the Koi's immune system. This is a critical time for the Koi.

Prevent problems with a clean pond

With the above in mind, the best way to protect a Koi collection is to prevent problems by cleaning every component of the pond as early in the spring as possible. Take apart the filters and clean each piece. Assure the bottom of the pond is 'squeaky' clean and bottom drains are functioning well. Clean any settling tanks, and replace the UV bulbs. Clean the waterfall or stream basins of any winter detritus. If the Koi must be moved or disturbed, use a gallon of Ultimate in the pond to help prevent pathogens from penetrating any areas where slime coat may have been scraped or removed. Meanwhile, it is always crucial to keep a close eye on the Koi's behaviour and to diagnose any problem early.

Articles available on our web page

Our Atlanta Koi Club has a wealth of information available to club members. These articles are located in the “Help and Education” tab of our home page.

Additionally, we try to include articles of current and past interest. If you have any knowledge to share, please send it to editor@atlantakoiclub.org.

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