The Lily Pad

The Topeka Area Water Garden Society

Published Monthly – February to November

The objective of the society is to encourage a greater appreciation and interest in water gardening and aquatic plants, to disseminate information about those interests and to help our members stimulate the study and culture of water gardens.

Volume 8, Issue 8 **October 1, 2005**

Safety in and around the pond

Most of us don't consider our ponds dangerous, but Eric Wood pointed out some safety features at our September meeting that we need to think about.

Maintenance and construction

"Be very careful," Eric said about pond maintenance. He recommends that no one should get in their pond when they are home alone. He said he speaks from personal experience of knocking himself cold by falling on a slick liner. Fortunately the pond was empty or he could have drowned.

The construction of the pond is a big safety factor. Large shelves with layers eight to ten inches per shelf will make it easier for humans or animals to walk out of the pond should they fall in. Entry access points (steps) with stable rock work are important. Rocks and gravel give a better footing than a bare black liner, which is like stepping on wet ice. Check the stability of the rock work when you clean the pond in the spring.

Pay attention to the way you lift and do it correctly. That bag of lava rock will weigh more in two years than it did when you put it in the BIOFALLS®, he said. The less you have to get into the pond the better it is – use a lily pruner. "If you don't have to get in there, don't," Eric said. It is a good idea to wear gloves since there are bacteria in the water that can cause problems if you cut yourself.

"Kids want to put their hands in the water," Eric said. Most child drownings occur due to ponds constructed with straight, deep walls going down to deep water, no shelves, no way out of the pond. Proper design and construction can greatly reduce the odds of such a tragedy. Design approach areas where you can see them from the house and don't let any child under five years old around the pond unsupervised. Make sure that there is a large stone that is flat and secure in the approach area. Teach kids how to approach a pond. Tell them "flat on your bottom or flat on your belly." A monitor is now available that can be used where the kids wear a wristband that will alert you if they fall into the water. The best way to avoid accidents is to sit children down, encourage their enjoyment of the pond, and set the ground rules of how you expect them to behave around the pond. This would also be recommended to do with neighbor children with their parents present, who will appreciate your caring.

Electricity

Always use a ground fault interrupter (GFI) receptacle, Eric said, and put the outlet as close to the pond as possible. Do not pull the pump out of the water by the cord (use a nylon rope or something else to lift it). Pumps should not be run off an extension cord on a permanent basis. Don't try to hide cords under leaves or mulch; bury them close to rock work along the edge of the pond, so they are less likely to be cut when planting in the future. Check all pump cords annually because turtles, mice and dogs can chew on them causing small nicks. These nicks can be repaired with Scotch pad or seam cover tape if they aren't under the water. Do not use 110 volt landscape lights close to the pond. Avoid building ponds under a power line and never over buried electric lines.

Wildlife

"Pay attention to what is going on in your pond," Eric said. Water gardens naturally attract snakes and turtles. "The snakes are already in the yard, all a pond does is allow you to see them," Eric mentioned. Most of the snakes in our area are harmless but they can be aggressive if provoked. Copperheads don't usually get in the water but they can hide in the rocks, but most commonly they will be seen sunning themselves on the edge of the pond If a snake does bite you be sure to get the snake for identification. Almost all poisonous snakes in Kansas are members of the pit viper family identified by a diamond shaped head and pits under the eyes, but are rarely found in northeast Kansas. Turtles can be a problem as well, especially snapping turtles, for not only the pond owner but for the pond liner. You can usually catch a snapper by using bologna or a hot dog and going fishing. Remember, when handling a snapping turtle their neck is as long as their shell giving them a good striking distance. They also posses extremely sharp claws. The best way to handle them is to pick them up by the tail. Other turtles that may be attracted are painted turtles or red eared sliders. Both of these turtles can be a nice addition to your pond as long as the pond is

Monthly Meeting

7:00 p.m., Wed., Oct. 19, 2005

Historic Ward Meade Park

"Closing your Pond"

Deb Spencer, Waters Edge

constructed so they can't damage the liner. These turtles are mostly herbivores (feeding on pond plants) but they can also eat small fish. These turtles also will eat fish food and in many cases will feed right along side your fish.

Regulations

Currently, under the UBC (unified building code), the national building code, water gardens up to 24 inches deep are considered an attractive nuisance and are not required to be fenced in. Some cities consider ponds 36 inches and over the same as a swimming pool and require they be fenced. We need to watch building codes for our area and will probably see more government interference in the future. If small children are in the neighborhood and are a concern, a Pondless™ waterfall may be a good alternative to put in the front yard.

Our water gardens can bring a lot of enjoyment to us but we need to be mindful of the many safety measures that we need to practice to keep them safe for us and our neighbors.

Eric is co-owner of Puddles-N-Pads Water Gardens and is a charter member of TAWGS. We appreciate his support in our many projects and sharing his educational expertise.

TAWGS Minutes Sept. 21, 2005

President Tom Platis called the meeting to order with self introductions. Following introductions Eric Wood gave a very interesting program on safety in and around the pond.

The meeting resumed following refreshments. Tom thanked Gerald and Donnis Hodges and Floyd and Diane Gruver for the refreshments and asked for volunteers for next month. Don Taliaferro and Bob Saathoff volunteered to bring the October refreshments.

Jim Green pointed out that the August minutes needed to be corrected with the name of Gerald Binkley instead of Gerald Ensley. Jim moved and Betty Karnes seconded that the minutes be approved as corrected. Motion carried.

Treasure Jim Green reported that we have $2,595.11 in the checking account and $1,143.87 in the savings account for a total of $3,738.98. The final income report for the 2005 pond tour was $2,858.33.

Secretary Diane Gruver reminded everyone to be mindful to paying their dues. We have a larger number of people who joined in September because that is the official charter month for the society.

Vice President Floyd Gruver requested input for the programs for 2006. He said that Eric Wood has volunteered to host a meeting next year and his program will be on pond lighting. Other suggestions were programs on landscaping around the pond and koi.

Tom Platis read the schedule that he has for workers at the Apple Fest at Old Prairie Town on October 2nd. Thanks to all who have volunteered.

Chairman Tom reported that the nominating committee of Floyd Gruver, Duane Eberhardt and Don Taliaferro met at his house and has the following slate of officers for nomination: President – Duane Eberhardt; Vice President – Floyd Gruver; Secretary – Diane Gruver; and Treasurer – Jim Green. He said that Jim and Diane have agreed to serve one more term with the understanding that someone will be in training to take over for them next year. The treasurer would need to have a computer with the capability of using Quicken. The secretary's job is only to take the minutes and do the official correspondence of the society: the secretary and newsletter editor are two separate jobs and Diane would most likely continue writing the newsletter. There were no nominations from the floor for any of the offices.

Joe Breitenstein reported that he had daffodils for sale after the meeting. Larry Sheets moved that the meeting adjourn.

Fall & winter pond care

by ERIK TATE Operations Manager, The Water Garden

Reprinted 10-05 Water Garden News

Another summer has come and gone. We're not far away from our ponds' winter dormancy in much of the U.S. It is time to look into a few preparations to make this transition easier and have the pond better prepared for next spring.

Climate will determine how soon these preparations need to be made. Some of us may need to start now, while others have a few weeks to make plans, or just procrastinate. Those who live in climates where your pond does not go dormant can ignore the bulk of this article and carry on as usual.

Keeping up with the leaves

Obviously one of the more significant events of autumn is that the leaves begin to fall. Leaves decaying in the pond will throw off the ecological balance of the water. One option is to use a net to skim leaves off the surface of the pond as they fall, but this can be a daily chore. A pond skimmer can clog too rapidly in the peak of fall unless emptied multiple times per day. Installing leaf netting over the pond will be easier to maintain. The Water Garden carries leaf netting in different mesh sizes and varying dimensions including custom cut netting.

The leaf netting will not only keep the leaves out of your pond but will help protect your fish from predators such as birds and raccoons which are more of a problem in the winter when there are no plants for the fish to hide under. We offer leaf netting in two different mesh sizes cut to length or prepackaged. The fish's metabolism is slower in cold water and the fish would have a difficult time escaping predators. If you don't use leaf netting you may want to consider a Koi Kastle. This will provide a place for your fish to hide making them more comfortable and safer.

Feeding the fish

As the air temperature begins to drop so will the water temperature in the pond. As it does, we should be slowly preparing the fish for winter. Do this by gradually reducing the amount of food they are receiving. When the water temperature falls below 60 degrees you should begin feeding a food with a lower protein content. Pond Care Spring & Autumn Food is available in 3 sizes and is an ideal choice for fish feeding at these temperatures. It is formulated with a

unique blend of amino acids and minerals to help supplement the dietary requirements of koi and goldfish in cool water. A newer option is the Microbe Lift Legacy's wheat-germ based Cold Weather Formula. This is available in 5 sizes.

As the water temperatures continue to drop to below 60 degrees you should feed your fish only two or three times a week. It can take your fish two or three days to digest food at this temperature.

Once the temperature drops below 50 degrees you should stop feeding altogether until spring when the water temperature remains above 50. Reminder: The water temperature is what is relevant, not the air temperatures. A good pond thermometer makes things easier.

Sludge and bacteria

Sludge on the bottom of the pond should be removed as best we can. If it is about 1/4 of an inch thick or less, it is normal and should not be a concern. This sludge is a combination of decaying plant debris, leaves, fish waste, and more. Some of this can be removed with a net. The finer debris can be removed by siphoning or by using a vacuum such as the Mini-Vac.

Remember to continue use of beneficial bacteria. Microbe Lift Autumn Winter Prep is made for cooler weather and can continue to be used throughout the winter. These bacteria will reduce maintenance by breaking down sludge and debris as well as sustaining biological activity throughout the cold winter months.

You should have stopped feeding your plants by this point. As the foliage on your hardy plants begins to die back you should remove any dead and dying leaves and place the plant deep enough in the pond to keep the roots from freezing. While it is true that some marginal plants will survive even if their roots freeze solid it is best to lower all of your plants below the ice zone. Removing dead plant material now is much easier than removing it after it becomes sludge. As organic material decomposes in the pond toxic gasses are produced. These gasses escape harmlessly into the atmosphere unless there is a coating of ice over the pond in which case they can be harmful to the fish. To prevent this from happening keep an area of the pond surface free of ice. You can do this with an ice reducer, or by using a pond deicer. The deicer has a built in thermostat that will turn the unit on when the water gets cold enough and back off as the water temperature rises.

Protect the plants

If your pond is too small or shallow to offer protection from freezing temperatures, you still have other options. If your pond is not too large and does not contain any fish, you can place a cover such as plywood over the pond and cover this with bags of leaves or bales of straw to provide insulation. A tarp should also be placed over the straw to keep it dry and provide better insulation. A basement can provide protection if you remove the plants and store them either in their original containers or in peat moss. You could build a temporary shelter over the pond. Lumber or PVC pipe can be used to construct a framework over the pond. Place clear plastic over this and weight the plastic down with soil or stone. This frame should hold the plastic a few feet above the water. Greenhouse type plastic is best, but construction grade plastic should last through one winter.

This method works very well and is basically like moving the pond one USDA hardiness zone higher. On clear days the sun warms the water and, even if covered with snow, there is good insulation over the pond. Some tropical plants can be wintered over this way in mild winters, even if you live in zone 6 or 7.

Some plants do not like being submerged in the pond through the winter. Iris ensata (formerly know as Iris kaempferi), a Japanese Iris, should be removed from the pond and planted in the yard. When new growth starts in spring it can be placed back in the pond for the summer. Lobelia cardinalis (Cardinal Flower) should be removed from the pond and planted in the yard for the winter. This plant should have a few inches of mulch over it as well. You will have more success wintering over Cannas if you remove the rhizomes from the pot and store in slightly damp peat in a basement or other cool area.

Some tropical water lilies will bloom all winter if kept in a tub container inside and given at least six hours of bright light. You can also winter them over by removing the tuber from the pot after the foliage has died back from a freeze. Then place the tuber in a container of slightly damp sand or peat moss at 50 degrees. In the spring you will need to heat the tuber in an aquarium to about 75 degrees to trigger its growth before moving outside.

One choice with tropical plants is simply disposing of them after freezing weather and replacing them in the spring. This way you get to try new plants and colors next season. If you want to attempt to winter over your tropical plants there are a few methods worth trying. Many tropical plants can be brought inside and treated as houseplants for the winter. Umbrella Palm, Taros, and Calla Lilies will do very well with medium light levels. If these are in no-hole containers no special care is needed. Otherwise keeping the pots in a tray full of water is needed to keep the plants wet. Water hyacinth and water lettuce require more care than they are worth. It is much easier (and less expensive) to replace them each spring. If you still want to make the effort, they require 10 hours of intense light and water temperatures above 70 degrees.

Waterfalls and pond equipment

You may or may not want to run your pump and filter system through the winter. This will depend on several factors, including climate. If you live in a climate with temperatures mostly well above freezing, then it will be to your advantage to keep your pump and filter running through the winter. The bacteria in your biological filter will not be active at low temperatures, but it will remain alive as long as you keep it supplied with oxygen-laden water. When spring arrives and the water temperature is rising, the bacteria can start to work much quicker keeping the water quality good for your fish and helping to control the algae. Should you choose to run your filter through the winter it is a good idea to minimize the water circulation in order to take advantage of the layering effect of the water. (Water temperature is densest at 39 degrees and the water on the bottom of the pond will remain at this temperature even with

freezing temperatures at the surface.) Some ways to minimize circulation are to turn off bottom drains, place intakes to pumps/filters at mid water (you do not want to circulate bottom water in the winter), place your intakes closer to the outlets in the pond (waterfall or fountain), and/or turn the pump down. These actions will allow the biological filters to stay alive without interfering with the layering of the water. Massive circulation of water in the winter can super chill the water by exposing warmer pond water to below freezing temperatures leading to death of the fish. One problem with running a pump and filter in the winter is the potential of major damage to your filter and plumbing system if the power goes off for extended periods and you are not at home to make sure no water is present in the filter and plumbing. If water is allowed to freeze in plumbing, UV's or filters this can lead to breakage and replacement of these units. If your system is designed to allow water to flow back into the pond in the event of a power outage, these problems can be averted. If you have a check valve in your system, you can use a long piece of small tubing or wire to hold the valve open allowing water to drain out.

You can turn off pumps and filters for the winter. Cold water holds much more oxygen than warm water and the fish's respiration is slow. Therefore you should not need the circulation and aeration in most areas. The bacteria in your biological filter do not work in cold temperatures, so the reason to run the filter is to keep the bacteria alive. If you turn off the pump and filter for the winter be sure to drain all plumbing. External filters, UV's, and external pumps will need to be drained. Submersible pumps should be left in the pond or in a bucket of water in a warm place to keep the seals from drying out. If you choose this method be sure to clean the filter before starting up in the spring. With the absence of biological filtration, you may want to add Microbe Lift Autumn Winter Prep, which contains bacteria that will work in near freezing temperatures and enzymes that consume cellulose in the form of leaves.

If you choose to run the pump all winter and you have an Aqua Ultraviolet UV sterilizer, it would be advised to remove the lamp, ballast, and quartz sleeve. You can use a Winterizing Cap on the UV sterilizer and avoid removing the whole unit from the plumbing.

Scrub the pond? No way!

Reprinted from 8-05 Splash

Many of us have beautiful rocks in our ponds and waterfalls that we took great care to pick out! And then it happens... the things turn green, brown and overall yuckie! We have had customers tell us that they actually take scrub brushes to the rocks to try and clean them up!

This is not only harmful to our backs and takes up our precious spare time...it also not good for the pond (scrubbing away precious beneficial bacteria)! There are products out there that will do the job for us, safely and easily (follow label directions, of course).

Check out D-Solve or Green Clean for that pesky stuff on the rocks and my all time favorites for that gooey stuff on the bottom: Microbe Lift Sludge Away or Aqua One. I have not drained my pond or scrubbed anything in it for several years!

Some thoughts on aquatic plants in winter

Reprinted from 10-3-04 Splash

We always get lots of questions whether plants are hardy or tropical, so I thought I will include a list of the most common of each here:

Tropical Aquatic Plants:

- Taro
- Longwood Canna
- Umbrella Palm
- Papyrus
- Bog Lily
- Spider Lily
- Water Hibiscus

Hardy Aquatic Plants

- Arrow Head
- Lizard Tail
- Parrots Feather
- Pickerel Rush
- Cattail
- Dwarf Bamboo
- Golden Club
- Water Mint
- Thalia

Tropical plants need to come inside for the winter. Hardy plants can be cut back to within about 4 inches of the soil level once the leaves die back and then submerged into deeper water until the first green sprouts appear again in the spring.

How many fish can the pond hold?

Reprinted from 8-05 Splash

Have your fish multiplied this summer or you found some more that you simply could not resist buying? Or both? We recently had some severe storms here in St. Louis that left several hundred of our customers without power on hot and humid days. This produced a scramble in our retail facility for ways to keep the fish alive without pumps to oxygenate the water.

This is a rather common problem! In the summer time the oxygen content of the water falls as the water temperature rises. Most of the time this is not dangerous as the pump(s) replenish the oxygen, but when they fail....

The general rule of thumb is that a pond can safely support one inch of fish per square foot of surface area without pumps and filters running. If your pond has more fish than that, then it is best to make some provisions for potential problems such as a power out.

Since most of us do not have a generator handy when these types of things happen, the next best thing is to keep a jar of Microbe Lift OX on the shelf. This is not a miracle cure but lots of times it is the difference between inconvenience and disaster!

2005 Pond Tour Pictures

Bill & Susan Kraus shared their pretty kidney shaped pond on the 2005 pond tour. (Photo provided by Dean Demoss.)

The pond of Larry & Gayle Wiecken, which was on the tour, has a 14' stream bed and 5 waterfalls. (Photo provided by Dean Demoss.)

Educational opportunities

The following seminars are being offered by Puddles-N-Pads and Waters Edge who both provide great information to their customers as well as TAWGS members.

Puddles-N-Pads Water Gardens, Topeka

October 7, Friday, 7:00 p.m.
Closing your pond – sign up now
October 8, Saturday, 8:30 a.m.
Closing your pond – sign up now

Waters Edge, Lawrence

October 8, Saturday. 10:30 a.m.
Bubbling Bird Baths and Fountains - Free - No reservation required
October 22, Saturday, 10:30 a.m.
Winterizing Your Garden Pond - Free - No reservation required

Plants that can not freeze solid in the winter time……..

Information provided in 10-1999 Reflections

Some hardy plants will not survive if you leave them on the shelf: Hardy water wisteria, golden buttons, melon sword, houttynia cameleon, New Zealand jumping rush, azure carpet, cardinal flower and the lobelias, water clovers, parrot feather, water parsley, pickerel plant and lizard tail.

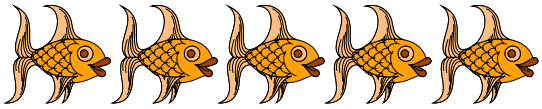
Lower all of these semi-hardy marginals to the bottom of the pond to assure that they live through the winter. Some winters you might be lucky enough for them to survive on the shelf, but don't count on it being a sure thing!

Give your fish protection

Reprinted from 9-03 Splash

When the plants in the pond start dying down for the winter they leave your precious fish pitifully exposed to predators! Hawks, owls, etc., consider koi and goldfish a Gourmet Dessert! Take steps to prevent them landing on the predator dinner plate, give them places to hide:

1) Take large terra cotta flower pots and put them in the bottom of the pond turned on their sides (the fish can scoot into them). Be sure the pots do not contain residue from fertilizer, etc. Five gallon buckets will work well too.
2) Cover the pond with a net even if there are no large trees nearby.
3) Use two foot sections of six or eight inch white PVC pipe and put them on their side in the pond so the fish can hide in them.



Why fall food for fish?

Reprinted from 9-03 Splash

Special food formulations for the cooler water temperatures of fall and winter are available for the pond fish and we are asked often if it is really necessary to switch to this special food.

Here is the reason: Koi do not have stomachs and they digest all of their food with their intestines. As the water cools, the Koi's metabolism slows and with it their ability to digest food.

Fall/Winter food is formulated with more vegetable matter (which is easier to digest) than summer formulas.

It is equally important to stop feeding completely when the water temperature dips below 50 degrees Fahrenheit, because the food will no longer be digested at all and will sicken the fish if it remains in the intestine!

Topeka Area Water Garden Society
9900 SW K-4 Highway
Topeka, KS 66614

Calendar of Events

October 19	TAWGS monthly meeting – Election of Officers
November 16	TAWGS Pot Luck Supper
2006	
March 1 – 5	Wichita Lawn & Garden Show

Pond Fun Facts

Water temperature can alter a Koi's coloration somewhat. Very warm water can cause the pigments to contract causing the colors to look paler. Colder temperatures cause the pigments to expand. Koi actually have the brightest colors in the cooler months of year!

Your Dues are Due if your label reads 9-05, 10-05 or anything in 05 prior to November

Please renew as soon as possible to continue receiving the newsletter.

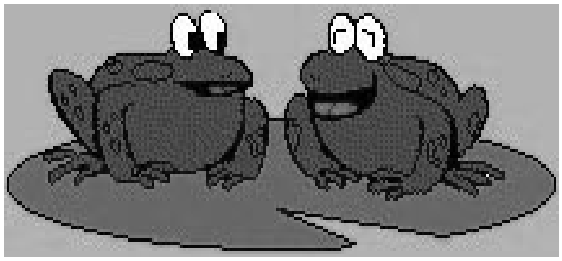
Send dues to Jim Green, 5701 SW Arrowhead CT, Topeka, KS 66614

THE TOPEKA AREA WATER GARDEN SOCIETY

OFFICERS:

Tom Platis	President
Topeka	785-478-9514
Floyd Gruver	Vice President
Holton	785-364-3046
Diane Gruver	Secretary
Holton	785-364-3046
Jim Green	Treasurer
Topeka	785-272-7139

Meetings are held the third Wednesday of each month at Ward Meade Park unless otherwise publicized. Dues are $15 per single or $20 per family and can be sent to Jim Green, 5701 SW Arrowhead CT, Topeka, KS 66614.



Check it out - www.tawgs.org

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The Lily Pad encourages submission of articles pertaining to water gardening from the membership and other interested parties. Deadline is the third weekend of each month. Address input and/or questions to:

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We reserve the right to edit input to meet publishing requirements. Copy cannot be returned.