



The Lily Pad

The Topeka Area Water Garden Society

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TAWGS members are busy as bees as they build the pond at the Regional Office of the Kansas Department of Wildlife & Parks on North Wannamaker. Pictured (l-r) are Duane Eberhardt, Eric Wood, Tom Platis, Dean Demoss, Hi Stockwell, Mary Eberhardt, Brad Cheney, Carol Gnagy and Mary Ann Bechtold. Spectators in the background includes TAWGS member Lee Wright (between Duane and Eric).

TAWGS builds pond at KDW&P

A hole in the ground on Saturday morning turned into a beautiful pond thanks to the hard work of many volunteers at the regional office of the Kansas Department of Wildlife & Parks on April 23rd. Unlike weather on our previous projects, we donned coats and hats to work on the pond. Even the afternoon was cool and comfortable. The public was invited to watch the construction this year and we had a good turnout with sometimes as many as 15 to 20 people observing the work. Eric Wood from Puddles-N-Pads not only supervised and worked on the construction, he also explained each process so that the observers knew what was being done. Some observers came and went and others stayed until the pond was completed about 5:00 p.m.

Workers on the pond included Eric, Brad Cheney from A-B-C Ponds and Greens, project chairman Bob Saathoff, and his committee Dean Demoss, Doug Peterman, Don Taliaferro and Floyd Gruver and other TAWGS members including: Tom & Helen Platis, Earlene & Dale Jirik, Jim Green, Mary Ann Bechtold, Hi Stockwell, Cheryl Saathoff, Carol Gnagy, Duane & Mary Eberhardt, Dean & Randy Demoss, Betty Karnes, Becky Coffman and Diane Gruver.

Monthly Meeting
7:00 p.m., Wed., May 18, 2005
 Note the location – Puddles-N-Pads
 Vivian Smith will talk about water plants
 Bring your own chairs!!!!

We especially want to thank Eric and Brad for their professional expertise and muscle to help build the pond. Thanks so much fellows!



Eric Wood and Tom Platis, both standing, watch as the first water flows over the waterfall while a spectator kneels to take a picture.



Water flows down the streambed into the new pond.

How to fix problems in the pond

Problems in and around your pond and how to fix them was the topic of Brad Cheney's talk at the April TAWGS meeting. Admitting that he had left his notes and handouts at home, Brad said he would make a few comments and then let the group ask questions.

"Water gardening is a fun hobby," Brad said. "Homeowners love to do it themselves, but they need to research it a lot before starting. Just call me instead," he said with a smile.

Some of the problems he sees are people trying to use a waterbed mattress for the liner. "It won't work," he said. Another problem is the use of limestone, which is a natural rock in this area and is very plentiful. Limestone breaks down when water flows over it and it gradually deteriorates. String algae loves it!

Beneficial bacteria won't grow on a straight surface, Brad said, so that is why it works best to put rocks in the pond. Don't use pea gravel though, because it can reverse the bacteria cycle. A three quarter to one inch size rock works best. Rocks in the pond also help keep animals from tearing the liner and it gives humans better footing when cleaning the pond. Kansas river rock has rough edges which cause problems so he did not recommend using it. When questioned about cleaning the bottom of a pond lined with rock he said that you just set a pump on the bottom under the rocks and it will suck out all the muck. You can hose the rocks off with a stream of water or a power washer if necessary. He said the material breaks down much finer in a pond with rocks than it does with a straight liner. You can rent a cleanout pump to help with the cleanup.

"It is not a swimming pool," he said. "You are not going to get it clean, clean."

When questioned about filter systems, Brad said that skimmers and bio falls are much easier to maintain. You have easy access to the pump and the filters are easier to clean and don't have to be cleaned as often. They can also be run all year. The bio falls should be cleaned in the spring and the pond jump started with bacteria. And yes, you can put too much bacteria in a pond. Follow the directions on the bottle. Filter pads should be changed every three to five years or change if they are compacted or tear easily. Lava rock should be hosed off every year and changed about every three years. Bacteria need a rough surface to grow on.

Ponds will naturally have some string algae and there are products such as String Algae Buster or Pond Balance that will help control it, but don't over do it. Too much can make it worse. Barley bales work well and can even be broken up and put between the filters in the bio falls so that water will run through it which makes it work the better. Barley bales do not kill algae, they prevent it. Activated carbon cleans tea colored water.

Owner of A-B-C Ponds and Greens, Brad has a lot of experience building ponds. He built his first pond at the age of 9 years old and his second one at the age of 12. He previously worked in wholesale for Puddles-N-Pads and recently achieved the designation of Certified Contractor for Aqua Scapes. He hopes to open a retail store in Lawrence or Eudora sometime next year.

TAWGS Minutes April 20, 2005

The Topeka Area Water Garden Society met Wednesday, April 20, at Ward Meade Park. President Tom Platis called the meeting to order at 7:00 p.m. with self introductions. Vice President Floyd Gruver introduced the guest speaker, Brad Chaney who owns A-B-C Ponds and Greens. Brad gave an interesting program on the most common mistakes made in building a pond and how to fix them.

Refreshments provided by Dean and Randy Demoss and Bob and Becky Coffman were served following the informative program. Fischers, Petermans and Betty Karnes volunteered to bring refreshments next month.

Jim Green moved and Doug Peterman seconded that the March minutes be approved as printed in the April Lily Pad. Motion carried. President Platis reported that the officers had met prior to the meeting. He said that we are still waiting for a volunteer to take the minutes at the June and July meetings and someone to write the newsletters that come out July 1 and August 1.

Vice President Floyd Gruver reported that the May meeting will be held at Puddles-N-Pads and Vivian Smith will give the program on water plants. He said the June meeting will be held at the home of Pat & Dick Rokey, 3830 SE 25th ST, and Pat will give a program on plants around the pond. He reported that Duane & Mary Eberhardt brought bare root lilies and lotus to give away after the meeting. He also said that Chris and Galen Monaghan will have fish to give away Friday when they clean their pond.

Floyd reported that TAWGS members will build a pond at the new office of the state Wildlife & Parks Dept. on Saturday, April 23, at 8:00 a.m. Bring gloves, lunch and shovels. The hole will be dug on Thursday. Bob Saathoff is in charge of the project.

Jim Green gave the treasurer's report. He reported the good news is that we have \$4,290.18 in the combined TAWGS accounts. The bad news is that we have a lot of expenses coming in with the pond project and the pre pond tour expenses. If everything works right we should be able to meet our obligations.

Joe Breitenstein reported that the Garden Council plant sale will be 8 - 12, April 30 at Fairlawn Plaza. He would welcome any help that TAWGS members could provide. He also said that he had some Louisiana iris for \$5 each and free cat tails if anyone wanted them after the meeting. The proceeds would go to TAWGS. Thanks Joe.

Dean Demoss reported that he and Ray Schroeder put the lilies in the fountain a week or so ago and the water looked good last week. It is pretty green and soupy at the present time, much to Dean's dismay. He said that anybody should feel welcome to bring a net by once in a while and skim leaves, etc. off the pond.

A member pond tour was discussed but nobody volunteered to spearhead the project so it will be discussed next month. Dale Jirik announced that the Meade Garden Club is sponsoring a bus tour again this year and there are still a few seats available at \$50 each. The tour will be June 16 to Hesston. Earlene Jirik

is in charge of the tour and you can call her at 266-5492 if you are interested.

Jim Green said that he needs to order new checks and wondered what address should be put on them. It was suggested he check to see if possibly the address could be omitted on the checks. If not, maybe he could check with Puddles-N-Pads to see if we could use their address.

Doug Peterman suggested that we might want to frame the beautiful purple ribbon that TAWGS won at the February Lawn and Garden Show. Joe suggested there might be a possibility that the ribbon could be displayed in the bookcases at Ward Meade, eliminating the expense of purchasing a frame. Doug will check with Ward Meade to see what can be done.

Don Taliaferro moved and Larry Sheets seconded that the meeting adjourn. Motion carried. Don't forget that the May meeting will be held at Puddles-N-Pads. Bring your own chairs!

Alligator weed



by Duane Van Dolah
Alternanthera Philoxeroides

Alligator Weed is a low-growing, tropical plant that can provide shelter and shade for fish. It has naturalized in the southeastern United States and in some cases has crowded out other plants. The medium leaves are 2-5 inches long and ½ to ¾ inches wide. In areas where it has become invasive, the stems can stand nearly 12 inches above the water surface. The leaves are fleshy with large stems. Small ½ inch, white, powder puff flowers nestle near the leaf base. Copper leaf (*A. reineckii*) is a related plant with purple-red foliage accented by white summer flowers. It is best grown as a marginal where as Alligator Weed forms floating runners. Sun to part shade, in moist to 3 inches of water. It grows 2- 6 inches tall. Propagation is by seed or from stem cuttings, which quickly root in water.

Trouble with Plants

By Bonnie Hale
Reprinted from *Waterlog*, 12-04

Yellow Leaves

Yellow leaves caused by lack of fertilizer

Be sure to fertilize your plants once a month, using a pond tablet fertilizer made specifically for pond plants. For potted plants, take a stick and poke it down in the soil and push the tablet down in the hole. Carefully firm the soil back over the hole. The tablets should be placed near the outside of the rim of the pond, not near the crown (the center) of the plant. For floating plants, remove them from the pond and place them in suitable container that will hold water. Add your favorite water soluble fertilizer according to their directions. Do not add more than the recommended amount. Twice the amount

is not better. Too much fertilizer can cause plants to turn yellow too.

Yellow leaves caused by insects

Inspect your pond plants just like you do your other plants. Pond plants are not immune to insects, especially in the winter if you bring them in the house. Spider mites love the dry winter environment our winter homes have. Any insecticide what you can use on house plants is safe to use on water plants inside the home. Some are quite smelly, and I recommend that you take the plant outside or the garage to spray them. Aphids are sometimes a problem in the house, but mites are the more prevalent.

Aphids are usually the main insects to attack our pond plants. Depending on the plant, you may be able to swish them off in the water where they will become fish food. Floating plants like Hyacinths, water lettuce and lily pads, and their flowers are good candidates for swishing. When you do water changes or add water to your pond to compensate for evaporation, spray water on the plants. This will wash the insects off into the ground or into the water. I try to do this weekly to prevent problems before they occur. Should a major insect attack occur, remove the plants away from the pond to prevent drifting spray from settling in the pond.

Seven is a good insecticide for pond plants. If the plant is going to be out of the pond for an extended period of time, set the pot in a bucket of water. Then there is no need to feel that you need to rush the task. After the insecticide has dried, take the hose to the plant and gently spray the plant with water. Be sure to get the undersides of the leaves, as this is where they like to hide. This action alone will get any crawlies that you missed to disappear.

Yellow leaves caused by too much sun

Plants can sunburn just like we do. A sunburned plant will have a bleached look or brownish cast to the leaves, sometimes they will yellow. When moving pond plants outside, after having spent the winter inside, you must do this gradually. Move them first to a shady spot. Set the plants in a larger container that will hold water. The little kiddie pools that are blue and about 6" deep work perfect if you have a lot of plants. Set that up in a shady part of your yard and keep the pool filled with water. Gradually over a two week period, expose the plants to more sunlight. Do this in the spring when the weather begins to warm so that they are also getting used to cooler nighttime temperatures. This whole process is called hardening off. It essentially means adjusting to different light and temperature levels. Keep in mind that the brightest window in your home will not have as much sun as the shadiest part of your yard. Research foot-candles if you need more information on this subject.

Leaves that are under water may also turn yellow or brown. Check this site to determine that the plant is set in the water at the proper depth. It is okay if the stems are under water, but you do not want the actual leaves beneath the water surface or they may turn yellow or brown.

Failure to prosper

Dirty Pond

Plants (just like fish) do not like dirty ponds. If

the water is dirty looking or has a lot of suspended non-algae material in the water, it can interfere with the light and nutrient uptake of the roots. Plants love clean water just as much as fish love it. If you have at least 50% of the water covered with plants, you will not have algae, ever. I will guarantee that! My 5,000 gallon pond is so clean I can see the face of a quarter on the bottom of the pond. But that is because I have 50 percent of the water surface covered with lilies, lotus, floaters, marginals and bog plants that line an 18-inch shelf around the pond. Do a 20%-25% water change once a week, preferably by siphoning off the bottom of the pond. The plants and fish will love you for it!

Pot-bound plants

If you notice that the leaves are smaller than normal or there are no flowers (particularly on the lilies), it may very well mean that the plant is pot bound: not enough soil in relation to the amount of plant in the pot. Lilies should be unspotted and divided once a year in early spring or moved to a larger pot. Failure to do this chore will result in smaller leaves and few or no flowers. Other pond plants should also be divided or moved to a larger pot once new growth is evident in the spring.

Quite frequently I have to remove pots from my pond and check the root system during the mid summer months because they can become overcrowded with roots. If you see roots growing on top of the pot or out of the drainage holes, it is time to divide the plant. I have had plastic pots actually crack as the roots busted out of the pot. If plants are growing out of the drainage hole, divide the plant as soon as possible. Most pond plants are in the one gallon pots and fit nicely on shelves; few ponds can accommodate larger pots, therefore I prefer to use the one gallon size. I divide them in half or sometimes in thirds or quarters. It is easier to do this chore if you remove the plant from the pot and use a hard stream of water over the roots to remove the soil and expose the root system. This way you can see what you're doing. Pull the plant apart into sections, making sure each section has a fair share of roots. You may have to literally use a large knife or a saw and saw through the root system. Iris takes a lot of muscle to divide, and I keep a saw handy for that reason.

Keep those plants clean

Remove old leaves and spent flower blooms just like you do in your flower beds. The advantage of ponds is that there are no weeds to pull as you have to do in the garden. Spend a few minutes once a week trimming the older yellow or brown leaves. My fish usually come up and give me "fish kisses" while I am doing this chore. I think of it as their way of saying thanks for keeping their home clean. And yes, I put on my suit and go in the pond so I can clean up the plants in the middle. The fish do not mind me in their water at all.

Algae

"My pond is green." This is the most common complaint that I hear. I know customers think, "she is just trying to sell me more plants." If I had a dollar for each customer who followed my advice and added more plants, I'd probably be rich. I had one lady who bought 10

water hyacinths. Her husband was furious that she did not buy the chemicals he sent her to buy. She came back five days later to tell me how clear her pond was. She was ecstatic because she could now see her fish. I know you don't know me, but let me tell you, I am not a pushy sales person – never was and never will be. I don't use chemicals except as a last resort, even on my garden plants. I like to work with Mother Nature and chemicals are not natural. I will guarantee you that once you get 50% of the surface covered with plants, you will no longer have algae.

Is the water in your pond clear?

by *RANDALL TATE, Chief Manager, The Water Garden*

One of our readers wrote with a question that is relevant for many of you.

Q. I had my water garden installed recently and am having trouble getting the water to clear. I can't even see my fish. What can I do to make the water clear? Stacy M.

A. It is normal for a new pond to grow algae very quickly. In a matter of days a new pond can go from clear to pea soup. Most of the turbidity in a pond is due to single-cell algae that turn the pond green. Algae can be many colors so it is possible that the color may be brown or some other color but it will usually be green.

Algae need three things in order to grow; light, warmth, and nutrients. The nutrients are supplied by the breakdown of organics in the pond i.e. plant debris, left over food, and fish waste to name a few. The best method of getting rid of algae is to get rid of the things that it needs to grow.

There are several steps that should be taken in order to maintain clean water in your pond. A pump that circulates at least 1/2 your pond volume each hour is recommended. A pump aerates the water and at the same time it can operate a fountain or waterfall as well as a pond filter. This filter should be large enough for your pond. Some companies overstate the filter's cleaning capacity. It is much better to buy a filter that is too large than one that is too small. To reduce the amount of nutrients in the pond we want to install a biological filter to break down some of this waste. A biological filter contains some type of media, which has a large surface area for the bacteria to live on and a large enough void space for good water flow through the filter.

Another thing we can do to reduce the nutrients is by using a pond vacuum or some other means of removing a portion of the sludge that accumulates in the pond. This sludge is a rich source of nutrients for the algae.

Plants play a critical role in keeping the algae down in a pond. Plants provide shade, reducing the amount of sunlight available to the algae (this also reduces the water temperature); and they use the same nutrients that feed the algae. For our purpose there are three basic types of plants that will be used in the pond; plants that grow entirely underwater, plants that have

their roots in pots with their foliage on the surface of the pond, and plants that float on the surface with their roots hanging in the water. Most important are the underwater plants. The most commonly used of these is Anacharis. These plants are very efficient in removing nutrients from the pond.

Plants with floating leaves provide shade for the pond. Water lilies and lily-like aquatics provide beauty to the pond as well as needed shade.

Floating plants such as water hyacinth, water lettuce, and frog bit not only provide shade but these plants use up nutrients as well.

Products that contain bacteria and enzymes help in the control of algae by breaking down the food source and helping to starve the algae. These should be added on a regular basis for the most benefit.

It takes time for a pond to mature. Each year that goes by you should see less and less algae as long as you are applying these techniques.

During the times that the plants are not actively growing and or for new ponds it may be necessary to use chemicals to kill the algae. Some of these are fine to use and others may harm your plants or fish. Read the bottle or ask your water garden expert for information on the best one to use for your pond.

Another device that is widely used for algae control is an Ultraviolet Light. This is 100% effective in eliminating single-cell algae that reduces the clarity of the pond (as long as the UV unit is properly sized). A UV unit will not help with filamentous algae though. This type of algae produces long strands or mats and grows on the surfaces of things in the pond.

One of the most important things to remember is that fish waste is a leading cause of algae blooms. Limiting the number of fish you keep and making sure you don't over feed them are critical to a clear and healthy water garden.

What is normal evaporation

Reprinted from 4-05 Swans newsletter

The main and foremost thing when you have a pond is to distinguish between your pond's normal evaporation rate and an actual leak. Each pond is individual in of itself. There are many factors that affect your rate.

A pond with a higher waterfall or longer streams will have more evaporation than small waterfalls and little or no stream. The more actual falls, the more the evaporation rate. The windier the day the more evaporation. The larger the pond's surface the more the evaporation.

But in the same respect, a small pond with a long stream will drop more inches in evaporation than the same size stream on a larger pond in the same period of time. In this case, the overall volume of water loss is the actual factor. You may look like you lost more inches but actually have not lost more gallons.

When you first have a pond it may take at least several weeks to several months to determine your normal evaporation rate for your pond. But you still need to remember to take in consideration the time of the year and

amount of windy days in that week. For example you will experience more evaporation in early spring to mid-summer than you will in the late fall or winter.

As you can see, it can be a complicated procedure but over time you will get to know your pond better than anyone else and you will automatically figure in these factors.

Now that you have established your evaporation rate for your pond, remember it is always better to replace water weekly or bi-weekly than to wait until your water level has dropped several or more inches. Replacing for normal weekly evaporation you do not need to add de-chlorinator. But for large amounts you will have to add de-chlorinator to maintain the health of your fish.

Biggest Blooms Recipe

(David Puff's Special Recipe)

Editor's Note: If you want huge beautiful blooms, try this special recipe provided by the late David Puff. Many club members have used it the last few years and know that it is a proven recipe. This only works for ponders who still plant their lilies in pots.

Starting at the bottom of the tub, I use the following steps:

1. 1" of mostly clay soil finely tilled. A little sand is okay.
2. 1" of composted (bagged) cow manure mixed with the soil from step 1.
3. 2/3 cup of bone meal spread around the outside perimeter of the tub, on top of the manure and soil mix.
4. Using a 3 lb. coffee can, mix one can of tilled clay soil and one can of composted cow manure in a separate container. Spread the mixture on top of steps 1-2-3 in the tub without disturbing the bone meal placement.
5. 3 Tablespoons of Fertiloam New Lawn Fertilizer 9-13-7 spread evenly over the top of steps 1-2-3-4.
6. 5 Pondtabs 10-14-8 (planttabs Aquatic plant food). Use a wooden dowel or small broomstick to push the tabs to the bottom, spaced evenly around the outer perimeter of the tub. Pack the hole tightly with clay.
7. 1" of finely tilled clay on top of steps 1-2-3-4-5-6.
8. One Hardy Lily rhizome of your choice. Make sure you wash off any soil from the previous pot, coat any cuts or division with an anti-fungal powder. Trim off excess roots. Plant the rhizome in the container and firm down soil and rhizome firmly.
9. 1" of pea gravel pressed firmly over the mix and rhizome. Place a stone or half brick over the rhizome or it will float out. Water heavily with pond water before placing your plant in the water. Firm it again. This will help to keep from floating out unsettled mix.

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

Calendar of Events

May 18	TAWGS monthly meeting Held at Puddles-N-Pads – Bring Chairs!
June 15	TAWGS monthly meeting Held at Dick & Pat Rokey's – 3830 SE 25 th ST – 357-4422 Bring Chairs
June 25-26	Topeka Pond Tour
July 9-10	Wichita Pond Tour
July 9-10	Kansas City Pond Tour
July 20	TAWGS monthly meeting
August 17	TAWGS monthly meeting
September 21	TAWGS monthly meeting
October 19	TAWGS monthly meeting
November 16	TAWGS Pot Luck Supper

Pond Tip

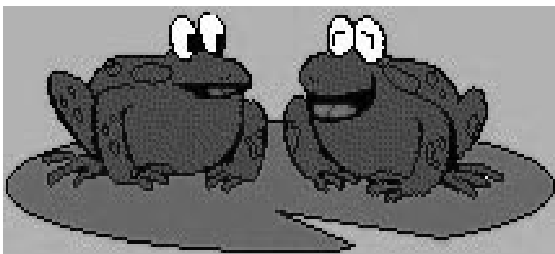
Koi can grow up to 6 inches their first year.

**Your Dues are Due if your label
reads 3-05, 4-05 or 5-05**

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

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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.