



## 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.

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April, 1, 2010



Deb Spencer talks about gravel bog filters at the March TAWGS meeting.

## Gravel bog filters work

We all like to sit by our water garden and enjoy it with our friends and family, Deb Spencer from Waters Edge in Lawrence said at the March meeting. But sometimes our beautiful pond becomes an ugly nightmare. The water turns green and we can't even see our fish, let alone the bottom of the pond. Algae grows and almost takes over the pond. Yikes!

There are several things that contribute to algae: fish overload, feeding fish too much food, too much sunlight and too much debris in the pond. The nitrogen cycle – food & waste equals ammonia, which turns into nitrites and then into nitrates. The key is to get rid of the nitrates.

“Do not change the water,” Deb emphasized. “You will just have to change it again every two to four weeks. Use plants – they are the key. Filtration plus plants equals clear water.”

Deb said the objective is not to kill the algae, but to control it. There are two basic kinds of filters: mechanical filtration (removal of physical debris) and biological filtration (conversion of toxic ammonia and nitrites to nitrates). Gravel bog filters can perform both of these filtration functions, working with Mother Nature to produce clear and healthy water. It works by filtering your pond water through a gravel bed planted with bog plants. The pea gravel mechanically filters and provides lots of surface area for beneficial bacteria which convert the ammonia & nitrites. The final step or nitrate removal is

## Monthly Meeting

7:00 Wed., April 21

Snyder's Cabin – Gage Park

Off 10<sup>th</sup> Street, go west on 10<sup>th</sup> to the 2<sup>nd</sup> entrance west of Gage Blvd., turn left (west) at the first street, go past the Greenhouse and turn right (north) to Snyder's Cabin, which is across the street from the model plane flying field.

“Landscaping Your Water Garden – Inside and Out”

Annette Jackson – Jacksons Greenhouse

achieved by the marginal plants which pull out all of the free nutrients basically causing the algae to starve to death.

Some guidelines: A gravel bog filter should be at least 10% – 15% of the total surface area of the pond (double that for koi ponds) and no deeper than eight to 12 inches. Plan on moving at least half the volume of the pond through the gravel bed each hour, selecting pumps and pipe sizes accordingly.

Easy to retrofit – gravel bog filters can be built outside the pond, inside the pond or as an island in the middle of the pond. You can even convert your biofalls into a bog filter. First, decide where you want to put it. Using a 2 inch PVC pipe with ¼” holes drilled along the bottom sides of it. Place the pipe work so that you have even distribution of water throughout the bog. It is best to use underlayment on top of the liner to keep from wearing a hole in the liner. It is a good idea to put clean-outs with drain cap at the end of your runs so that it can be cleaned out if necessary. Make sure to check to see if the water will be distributed evenly before you put the gravel on top of the PVC pipe. It is recommended that you use two pumps; one for the gravel filter and one for the waterfall or other features that you have.

Common mistakes that people make when they build a gravel bog filter are:

1. The bog is too small: For water gardens 10 – 15% of surface area should be bog, and for koi ponds there should be 25 – 30%.

2. Too deep a bed of gravel - this is the most common mistake made, you need no more than 12” of gravel substrate. If you are adding a Gravel Bog to an existing deep pond area; you can construct a false bottom or shelf using blocks or grating.

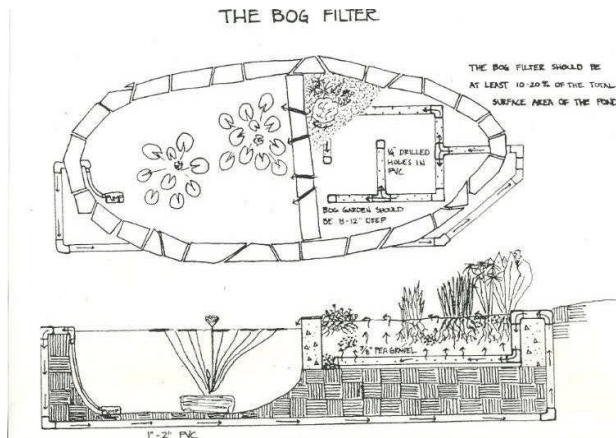
3. Wrong size gravel - use 3/8” pea gravel.

4. Top of bog too deep – surface of gravel should be

at or above the pond surface area

5. Not enough plants- initially you should plant one plant per foot

6. Wrong plants – there are many aggressive species which can over grow your bog.



## TAWGS Minutes 3-17-2010

President Don Taliaferro called the March meeting to order at 7:00 p.m. with self-introductions. Deb Spencer from Waters Edge in Lawrence was our speaker with bog filters being the main topic.

There was a motion to approve the minutes of the last meeting of 2-17-10 as written in the Lily Pad by Mark Weaver and seconded by Phil Thompson. Motion carried.

Treasurer, Jim Green reported that we have \$2,296.38 in the checking account with \$1,453.00 of that being committed to various projects. Michael Bradley made a motion to move committed money back to our general fund. Diane Gruver seconded. Motion carried.

Mark Weaver thanked all who helped at the Lawn and Garden Show.

A motion was made by Allen Ellis to pay Don Hutley \$50.00 to help offset expenses he had of hauling pallets of rock to the Lawn & Garden Show. Jim Green seconded and motion carried.

Mark Weaver suggested that we send thank you notes and pictures to businesses and individuals that donated materials for the garden show. Mark said he and Mary Weaver would take care of this.

Phil Thompson said a committee meeting for the Pond Tour would be in a couple weeks. Anyone that is interested is welcome to come. In the process of checking with printers, Phil found Topeka Blue Print will do the pond tour booklets for \$1.35 each, which is a \$200 - \$300 savings over last year, based on the same amount we had printed last year. Phil said the pond committee is trying something new this year to help increase ticket sales. At our April meeting vouchers will be given out to members to take and sell to friends, relatives, business associates, etc. The vouchers will sell for \$1.00 less than the normal price. Later, the voucher would be redeemed at retail stores selling tickets for the actual ticket. The money members collected would be turned in at the May meeting.

Phil asked for three members to volunteer to be on a back-up list in case any of the people scheduled to be on the pond tour have to back out. These should be members

that haven't been on tour in the last three years.

A motion was made by Floyd Gruver that a payment of \$1,000 be made to the City Parks and Recreation Foundation fund now, with a possibility of more after the pond tour. That would start to pay back the \$7,000 that was loaned by them to TAWGS for the latest water feature. Michael Bradley seconded. Motion carried.

Bob Saathoff thanked Ray Schroeder for all the help with the leaks on the water project at Ward Meade. For the moment all seems to be okay.

Tom Platis made a suggestion for a fundraiser. Our group could put together a pondless water feature that would be raffled off. There will be more discussion on this at another meeting.

Ray Schroeder asked if our group could get volunteers for two days during tulip time to sit at a table at Ward Meade to greet people. The two days we agreed to do was April 12 and 24.

Our June meeting will be a fish fry at Ward Meade. Ray Schroeder will be giving a tour to the guests that come.

Ken Mulder made a motion to adjourn the meeting. Mark Weaver seconded. Motion carried.

Sandy Regier, Secretary

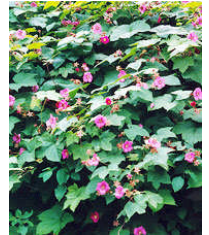
## Moisture loving plants

by Duane Van Dolah

### Eastern Thimbleberry

*Rubus Odoratus*

I happened to come across an article on this plant awhile back and thought it might work in some gardens. It has some characteristics that could be very useful in certain gardens. This plant is the Thimbleberry. It is a member of the raspberry genus, but is thornless and the fruit usually isn't eaten because of the many seeds they have. The 4-10 inch leaves are five-lobed, maple-shaped in appearance, dark green and turning a light yellow in the fall. They grow on canes that can get to a height of 3 to 6 feet. These thornless canes are a yellow to orange-brown color with the bark exfoliating. The flowers are 2 inches across with the color being a rose-purple fading to a pink. The flowers are slightly fragrant and appear on new wood throughout the summer. The height of this shrub is 3-6 feet in height and the spread is 6- 12 feet. It spreads by suckering and can form a thicket, but hard pruning after it fruits will keep it from spreading too fast. New growth on the branches is bristly or hairy.



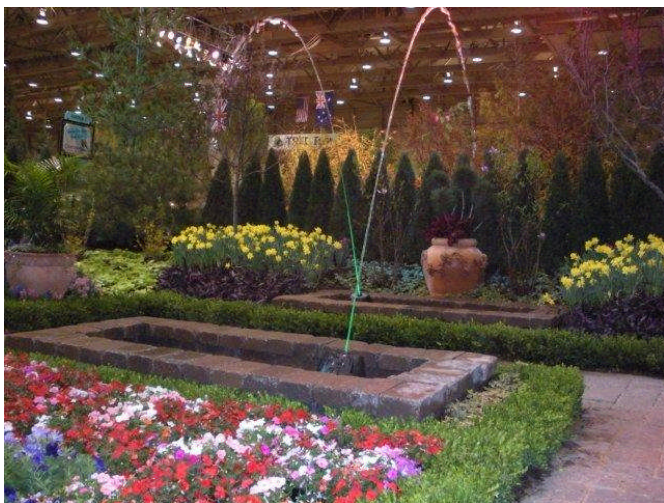
After the flowers are through blooming, the fruit sets on. The fruit is 3/4 in diameter, red and cup-shaped. With the flowers and the fruit, this is a very ornamental shrub. It grows in zones 3-7 with the soil being moist but well drained but can tolerate occasional flooding. The Thimbleberry is happy in partial shade but can tolerate full shade. This plant would be good for filling in open shady areas where grass has a hard time growing or close to a bog or stream.



# Refreshments for 2010

We have a couple of months that we need someone to volunteer to bring refreshments. Also, it is nice to have more than one couple each month. If you would like to volunteer, please call Don Taliaferro at 272-8348 or e-mail [dontal@swbell.net](mailto:dontal@swbell.net).

April	Doug & Marikay Peterman
May	Joe Breitenstein
June	Fish Fry – Saathoff and Taliaferro
July	
August	Tom and Helen Platis
Sept.	Floyd & Diane Gruver
Oct.	
Nov.	Pot Luck



Flowers and water features abound at the 2010 Wichita Garden Show.

## Wichita Garden Show

It has been a few years since Floyd and I have been to the Wichita Garden Show but this year we were able to enjoy the beautiful sites provided by Wichita nurseries and garden clubs. I don't know if it is just us, but it seems like the shows aren't quite as spectacular as they used to be. Maybe we were just "wowed" more the first few times we went. Could be that, and the fact that the displayers aren't allowed as much money to work with as they used to be. For whatever reason, we thought this year's show was certainly worth the trip to Wichita.

It isn't a bad day trip. We left at 9:00 with Tom and Helen Platis, spent a few hours at the show and were back in Topeka in time to eat before going to a Pond Tour committee meeting at 7:00. Hope a few of you will be able to make it next year. We have often talked about trying to get a busload to go but never seemed to be able to generate enough interest.

## Spring pond maintenance

Spring has sprung, or that is what they say. Now is the time to think about getting your pond ready.

### Inspect The Pond

Take a careful look around your pond. Make sure there has been no winter damage to the pond or any of

the components. Repair or replace as necessary.

### Clean The Pond

No matter how much preparation you have done, winter has likely left the pond in less than perfect condition. Even with leaf netting, you probably have had a few leaves settle to the pond bottom. Any plants that were not completely cut back will usually leave a settlement of organics in the pond bottom. Manually scoop out as much of this as possible or use a pond vacuum if you have one. You can also use bacteria to help this such as Microbe Lift Spring Summer Cleaner or Microbe Lift Sludge Away. Use the latter for more serious accumulations.

### Start Pump

If your pump has been off for the winter, spring is the time to start it back up. Most people do this when the water temperature increases to around 50 degrees. Do not start the pump and then leave. Start the pump back up when you will be spending time around the house for several hours. This way you can keep an eye on everything and make sure that all the water is still going where you want it to go (back in the pond).

### Start Filter

If the pump and filter system has not been running for awhile, you will want to give your filter media a thorough cleaning prior to starting the system backup. Next, or if your pump has run all winter, it is time to give the bacterial colonies a boost. There are many products that accomplish this like Microbe Lift PL or Bio-Filter Booster.

### Test Water

Begin testing the pond water again. Of particular importance are ammonia and nitrite levels. Both of these should be zero. Perform partial water changes if either test gives a reading other than zero.

### Condition Fish

Spring is the time of year when fish are most susceptible to developing health problems. There are a few things that can be done to help protect the fish. Gram-negative bacteria can cause severe infections. These infections can be prevented by use of KoiZyme but are very hard to eliminate after the fish has become infected. Debride DW is a medicated fish food that will help protect fish from internal worms. For general protection, pond salt can be an easy way to help the fish ward off disease and pathogens.

### Feeding

Warm weather means your fish are now or soon will be ready to start eating again. Until the water temperature is consistently above 50 degrees, continue to not feed the fish. Once the water temperature is into the 50s you will want to feed a food designed for spring and fall like Microbe Lift Cold Weather or Pond Care Spring and Autumn food. As the water temperature reaches into the 60s it will be time to feed your regular summertime fish food.

### Plants

Also as the water temperature reaches into the 50s it will be time to get the hardy plants that survived the winter ready for a great year ahead. This is the time we begin fertilizing the plants. Also, for maximum performance, it may be necessary to divide some of these plants. If the plants are too crowded in their pots, they will suffer and their growth and flowering potential limited.

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

## Calendar of Events

April 10 – 26 Tulip Time  
April 21 – Monthly TAWGS Meeting  
May 19 – Monthly TAWGS Meeting  
June 16 – Monthly TAWGS Meeting  
June 26-27 – Topeka Pond Tour  
July 10-11 – KC Pond Tour  
July 10-11 – Wichita Pond Tour  
Aug. 18 – Monthly TAWGS Meeting  
Sept. 15 – Monthly TAWGS Meeting  
Oct. 3 – Apple Fest  
Oct. 20 – Monthly TAWGS Meeting  
Nov. 17 – Monthly TAWGS Meeting

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*Filters that have been turned off for the winter should be cleaned well before turning them back on this spring. Cleaning will remove toxins that can develop from waste breaking down in the filter in the absence of oxygen. Once your filter is up and running, add beneficial bacteria to seed it .*

**Your Dues are Due if your label reads  
2-10, 3-10 or 4-10**

**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 2010 OFFICERS:

Don Taliaferro Topeka	President 785-272-8348
Bob Saathoff Topeka	Vice President 785-272-7125
Sandy Regier Topeka	Secretary 785-286-9998
Jim Green Topeka	Treasurer 785-272-7139

Meetings are held the third Wednesday of each month at Old Prairie Town (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](http://www.tawgs.org)

## *The Lily Pad*

Published Monthly, February to November by the Topeka Area Water Garden Society (TAWGS), a non-profit organization. TAWGS does not warrant the information in this newsletter. The opinions expressed are solely those of the authors and do not necessarily represent those of the Topeka Area Water Garden Society.

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:

Diane Gruver, The Lily Pad Editor  
408 Emerald, Holton, KS 66436  
785 364-3046

[fdgruver@embarqmail.com](mailto:fdgruver@embarqmail.com)

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