

## Preventing Pond Problems

Old Man Winter obviously decided he was still young enough to enjoy Spring Break by allowing the 30 degree temperatures to appear last week. Despite his presences, it is still time to go outside and start doing our spring tasks. One of those tasks for several individuals should include observing their pond and making some decisions about how they will handle issues that might arise in the coming months.

One of the issues that might arise is a high level of plant growth and algae in a pond. There are several reasons that one could experience this problem including a high nutrient level that is a result of nutrient-loaded runoff from yard, pasture, or field, the pond is stagnant, overfeeding of your fish, allowing livestock to drink and enter the pond, or the pond is too small or shallow. Ultimately, to fix a high nutrient level problem, you need to try to reduce the amount of nutrients entering your pond. One way you can do this is by adding a filter strip. If you can't add a filter strip, you could try utilizing an aerator to help move the water, prevent livestock from entering the pond, and stop feeding your fish.

Controlling the nutrient level in the pond will help prevent the development of the various types of algae: microscopic algae (commonly referred to as blue-green algae), mat-forming algae (commonly referred to as moss), and Chara (a calcified, brittle plant that is rooted). In addition to controlling algae formation by reducing the nutrient level in the pond, you can also control most algae problems by using copper products. However, you should not use copper products if there are trout or koi found in the pond.

Some pond owners are successful in controlling the amount of algae and other pond weeds in their ponds by using blue dye. By adding the blue dye to their pond frequently, pond owners block out some of the sunlight which ultimately reduces vegetation. If you are interested in trying to utilize dye in your pond this year, then you should put your first application of the dye in your pond by April 15. That is the approximate date that we begin to see plant germination occur in Indiana. You will then need to reapply the blue dye throughout the summer based on the recommendation found on the product label.

Some of the other pond weeds that can be an issue include: duckweed, watermeal, waterlilies, watershield, and American pond weed. Duckweed and watermeal are two free-floating plants that can wreck havoc on a pond. These two plants are extremely small (duckweed is 1/8 to 1/4 inch in diameter). You can tell these two plants apart by looking for roots. Duckweed has small roots that hang in the water while watermeal has no roots. Both of these plants can completely cover a pond and cause oxygen depletion to occur.

Waterlilies, watershield, and American pondweed are three examples of rooted-floating plants. Each of these plants have underground stems, call rhizomes, from where new plants sprout. The leaves and flowers of these species then float on top of the water. American pondweed has

long slender leaves that are 2 to 3 inches long. They will then be attached to their roots by long petioles. Waterlilies and watershield are similar in appearance. However, you can tell them apart since watershield has smaller leaves and petioles that are attach in the center of the leave.

It takes a lot of time and effort to learn to identify the various pond weeds that can be found around a pond. For help with identifying pond weeds, you can bring in a sample (live or photograph) of the weed to your local extension office. If you would rather try to identify the plant yourself, Purdue Extension Publication APM-3-W Identifying and Managing Aquatic Vegetation is a great resource. You can find a copy of it at:

<[http://www.extension.purdue.edu/extmedia/APM/APM\\_3\\_W.pdf](http://www.extension.purdue.edu/extmedia/APM/APM_3_W.pdf)>. In addition to being a great identification resource, this publication has information on how to control the various weeds both biologically, manually, and by using chemicals.

Visit our homepage at [www.extension.purdue.edu/putnam](http://www.extension.purdue.edu/putnam) or you can contact the local Purdue Extension Office by calling 765.653.8411 for more information regarding this week's column topic or to RSVP for upcoming events. It is always best to call first to assure items are ready when you arrive and to RSVP for programs. While many publications are free, some do have a fee. Purdue University is an equal access/equal opportunity institution. All times listed are Eastern Time.

#### Upcoming Events:

- April 6 Wear Blue Child Abuse Prevention Program, Fairgrounds, 6 pm
- April 6 Putnam 4-H Junior Leaders, Fairgrounds, follows child abuse prevention program
- April 16 Electric Workshop for 4-Hers, Extension Office, 6-8 pm
- April 22 Kim Miller Retirement Reception, Extension Office, 4:30-6:30 pm
- April 23 Exploring 4-H Meeting, Fairgrounds, 6:30 pm
- April 24 Performing Arts Area V 4-H Contest, Vermillion County
- April 27 Fair Board Meeting, Fairgrounds 7:30 PM