

## Basic Pond Management

There are many interesting components of plant science and agriculture. We County Agents spend a large percentage of our time diagnosing pond weeds. Yes, there are weeds that grow in ponds. Call me sheltered, but I was unaware of the significance of a pond weed infestation until I began my career in Thomas County as Extension Agent.

Many different species of weeds can be present in a pond. The four types of pond weeds are algae, floating weeds, emergent weeds, and submersed weeds. Algae and floating weeds make up the smallest percentage of pond weeds yet these are the most noticeable. Some algae are microscopic; other algae are filamentous. Algae are very common in ponds.

Floating weeds are defined as aquatic weeds not attached to the bottom. This is also a small category which includes duckweed, bladderwort and a few others. These come in various sizes, and most have roots that hang in the water from the floating green portions.

We also see submerged and emerged plants in the water. Emergent plants are rooted usually along the shorelines that stand above the water's surface. Common emergent plants are water lily, cattails, rushes, torpedograss, etc. Submerged plants are rooted plants with most of their vegetative mass below the water surface. Submerged plants do not rise above water because of the soft stems. There are many weeds in this category.

Many ponds have more than one type of aquatic weed, and we must correctly identify all the aquatic species before determining a management plan. When managing aquatic weeds, we generally begin with chemical control and move toward a biological control.

There are many registered herbicides labeled for pond weed control. A common concern when using herbicides in a pond is the oxygen depletion that results from vegetation decomposition. If we kill all aquatic weeds at once, we sometimes observe fish kills resulting from oxygen depletion. It is recommended to treat 1/3 of the vegetation at a time during the spring once weather hits 70° F. We generally avoid weed treatments from June to August, since it is difficult to regulate oxygen depletion through decomposition with high temperatures.

Once we control the majority of the weeds, we can stock grass carp to further maintain weeds. Grass carp generally do better at controlling smaller weeds. I get questions about stocking grass carp in large weed infested ponds. With thicker stems and foliage, it is difficult for grass carp to eliminate weeds.

Not only does Extension help with pond weed management, but also fertilization and fish pond production. I also receive pond management questions on the topic of fertilization. Like fertilizing plants, we also think about pH in a pond. However, measuring pH in water is significantly different than that in soil. This is because the pH in water changes throughout the day.

The best way to determine if a pond needs to be limed is through a hardness test. I have a pond test kit in the office and sometimes run these tests for folks. Usually, a pond will need ½ ton to a ton of lime per acre. This maintains the pH at the right level.

As far as fertilizing, it is not recommended haphazardly. Ponds are fertilized for fish production, but only fertilizing once or twice a year can cause more issues than not fertilizing at all. A one-time fertilization can leave the fish pond unbalanced and promote weed growth.

If you have a pond and would like to get more information on management, the Thomas County Extension office is hosting a Pond Management Program on **Tuesday, July 28<sup>th</sup>, 2015**. The location will be **Myrtlewood Plantation** from **9:30 am to 12:00 pm**. A sponsored meal will follow the meeting.

Our guest speaker is UGA Extension Aquaculture Scientist Dr. Gary Burtle. Dr. Burtle will discuss pond management issues. The main topic to be discussed is pond weed control and identification. If you have a weed in your pond at this time, feel free to bring a sample in a Ziploc bag.

If you plan to attend, **please call the Thomas County Extension office at 225-4130 by Friday, July 24<sup>th</sup> to be included in the sponsored meal**. There will also be commercial and private pesticide credits available for this meeting. If you have any questions, feel free to contact me at 225-4130.