



Aquatic Plant Management: Important Questions for Landowners

Wesley L. Gerrin¹, James L. Shelton¹

¹*University of Georgia D.B. Warnell School of Forestry and Natural Resources*

This document is intended for information gathering prior to recommendations. Answers to the following questions are critical for diagnosing aquatic vegetation issues and will help streamline the process of treatment recommendations.

- Who owns this pond?
 - It is important that if a pond has multiple owners, they are all on the same page before any management action is taken.
- What are the latitude and longitude coordinates of the pond?
 - Aerial imagery can be useful for determining surface area and understanding surrounding land use.
- The most important piece of information for making aquatic vegetation control recommendations is a positive identification of the plant! To make a positive identification of a plant, high quality photos are needed.
 - Photos of plants need to be as clear as possible and need only be taken of one or two single strands of each plant.
 - If possible, the leaves, stem, roots, and flowers (if present) need to be visible.
 - In addition to close-ups of plants, a landscape shot of the entire pond may be useful to determine the extent of weed coverage.
 - If it is not visible to the person taking the photo, it won't be visible to the person making the identification.
- Is bringing a sample of the plant to the extension office possible?
 - Seeing plants in-person can often help with identification or making sure that good photos are sent to specialists.
- What is the approximate surface area of the pond?
- What is the approximate maximum depth and average depth of the pond?
- What is the typical water visibility?
- What type of primary spillway does the pond have?
 - Can grass carp escape from the pond?
- Does the pond have excessive inflow and/or water exchange?
 - Some herbicides will not be as effective when there is a lot of water exchange.

- Is your goal for this plant complete eradication, partial control, or just having a positive identification?
 - Landowners should always be informed that native aquatic vegetation, whether submerged, emergent, or riparian, is not always harmful, and often benefits water quality.
 - Oftentimes controlling one species of vegetation offers an opportunity for other species to become abundant.
- Depending on the situation, do you prefer chemical, biological, or mechanical control methods?
 - Sometimes it is feasible for certain types of aquatic vegetation to be controlled using a variety of methods, such as herbicides, grass carp, or mechanical harvesting. Landowners should be aware of all potential alternatives before they decide.
 - Frequently, an integrated management strategy that employs multiple methods will yield the best results but is dependent on landowner preferences.
- Has the pond been fertilized recently or has fertilizer been part of the management regime in the past?
 - Fertilizer is a common management strategy for increasing productivity, but it is not always necessary and can contribute extra nutrients if not needed.
- Do livestock have access to the pond or the area immediately surrounding the pond? If they do not have direct access to the pond, how close can they get?
 - Livestock can contribute excess nutrients to ponds via their waste. Even if they do not have direct access to a pond, their waste can still enter the pond in surface runoff.
- Are the fish being fed (by hand or automated feeder)? What is their feeding rate? How many fish are in the pond?
 - Overfeeding fish can be a source of unnecessary nutrients that can contribute to excess aquatic vegetation.
 - Overstocking can also result in overfeeding and exceedance of carrying capacity.
- Is the water from the pond used for irrigation?
- Is the water from the pond used for watering livestock?
- Do people swim in the pond?
- Are fish from the pond used for food?
 - Use restrictions for irrigation, recreation, fish consumption, and drinking water may apply for certain herbicides. It is important to know how the water is used before making any herbicide recommendations.
- What is the water temperature?
 - Herbicides are ineffective below certain water temperatures, and the risk of oxygen depletion events is greater when water temperatures are high.