

## Collecting Water Samples from Ponds for Water Quality and Algae Analysis

*Note: Lab accepts samples Monday to Thursday ONLY.*

*(Do not ship the samples on Thursday)*

Algae are the primary source of food in an aquatic ecosystem. Algae readily take up nutrients, while providing food for fish and other organisms. A water body rich in nutrients provides an ideal environment for algae, such as cyanobacteria, also known as bluegreen algae, to flourish, including those that are toxic to fish and other animals. The presence of these monotypic cyanobacteria blooms may decrease water quality and impede water treatment. In order to determine the extent of algal blooms and possible treatment procedures, the Warnell School of Forestry and Natural Resources of UGA is now offering testing services that requires microscopy work. They will provide a taxonomic list (to *Genus*, and when possible, *species*) and measure algal abundance (cells/mL) for your water samples.

The properties of water may vary with depth and area within the pond. The following may be useful in obtaining a representative sample to describe the alga and water chemistry of the pond:

### Water Sample Collection

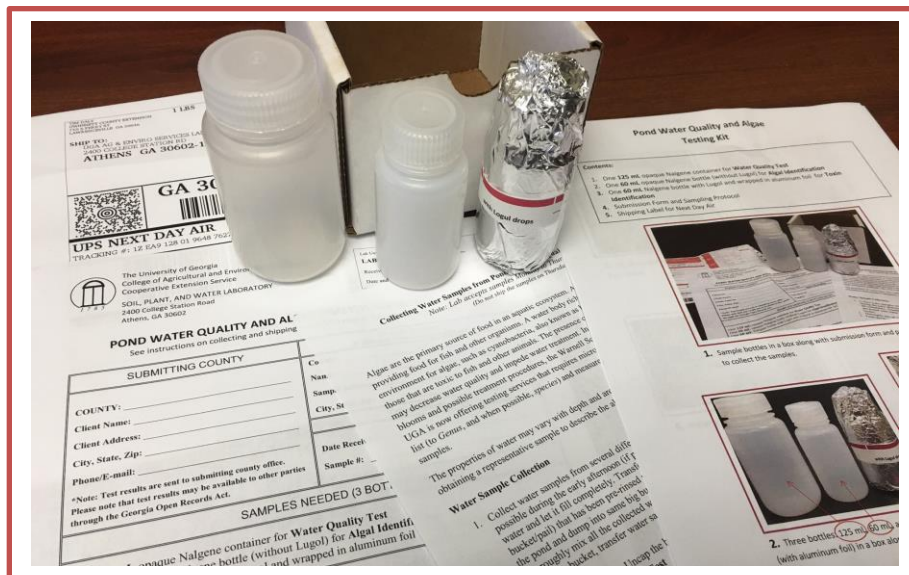
1. Collect water samples from several different areas around the pond as far from the bank as possible during the early afternoon (if possible). Do this by holding a container collector under water and let it fill completely. Transfer the collected water to a large, clean container (ex. bucket/pail) that has been pre-rinsed with water in the pond. Continue collecting water around the pond and dump into same big bucket.
2. Thoroughly mix all the collected water in the bucket.
3. From the bucket, transfer water samples into 3 plastic bottles provided in the kit:
  - **125 mL** bottle: Uncap the bottle, fill the container up to the neck, then cap tightly. This is for **Water Quality Test**
  - **60 mL** bottle without Lugol: Uncap the bottle, fill the container up to the neck, then cap tightly. This is for **Algal Identification**
  - **60 mL** bottle with **Lugol** and wrapped in aluminum foil: Unwrap container from aluminum foil and inspect for the presence Lugol solution (dark liquid) in it. Lugol is a fixative agent for algae and so **DO NOT** pour it out. Uncap the bottle and fill the container, then cap tightly. Wrap the container again with the same aluminum foil. This is for **Toxin Identification**.
4. Place all 3 bottles in the same box.
5. Enclose check payment and submission form.
6. Seal sample box, affix UPS shipping label and call UPS at 1-800-742-5877 to determine your local pick-up/drop off place and time for “Next Day Air” packages.
7. Or hand deliver to the SPW Laboratory, 2400 College Station Rd, Athens.

NOTE: In many cases, pictures of the ponds help us diagnose the quality of the pond. You may send us pictures for complete assessment of the pond.

# Pond Water Quality and Algae Testing Kit

## Contents:

1. One **125 mL** opaque Nalgene container for **Water Quality Test**
2. One **60 mL** opaque Nalgene bottle (without Lugol) for **Algal Identification**
3. One **60 mL** Nalgene bottle with Lugol and wrapped in aluminum foil for **Toxin Identification**
4. Submission Form and Sampling Protocol
5. Shipping Label for Next Day Air



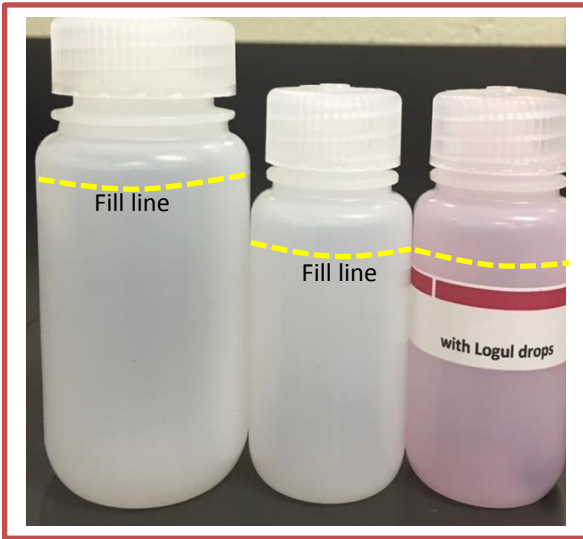
1. Sample bottles in a box along with submission form and procedures on how to collect the samples.



2. Three bottles: **125 mL**, **60 mL**, and **60 mL + lugol** (with aluminum foil) in a box along with submission



3. Remove aluminum foil prior to filling bottle with water sample.



**4.** Fill containers near the neck (fill line) of each bottle.



**5.** Re-wrap lugol container with aluminum foil and place all three bottles in the box, along with submission form and check payment of \$110 payable to Soil Lab.



**6.** Shipping label for next day air



**7.** Seal box, attach shipping label and send to:

Soil, Plant, and Water Laboratory  
2400 College Station Road  
Athens, GA 30602

Call UPS at 1-800-742-5877 to determine your local pick-up/drop off place and time for "Next Day Air" packages.