

# Blue Green Algae Jar Test

Bureau of Environmental Health



July 2012

## A Do-It-Yourself Option:

Supposed you look out over your private lake or pond and see the water looks very green. You may ask yourself if there isn't a simple way to decide whether it is blue-green algae in your lake, or just a moderate-to-high amount of some of the more beneficial types of planktonic algae. A simple test you can do is the "jar test."

### Jar Test:

Find a clear glass jar with a screw top lid (maybe pint-to-quart size, like a Mason jar), fill it three-quarters full with lake water (not directly from the surface, but collected just under the surface), and set it in your refrigerator where it can be left without being disturbed overnight.

The next day, carefully (don't agitate and mix the water) take the jar out and look to see where the algae have accumulated. If they are all settled out near the bottom of the jar, then that likely indicates your lake does not have a lot of

blue-green algae growing in it. If, instead, the algae have formed a green ring around the top of the water in the jar, or just seem to be collected at the air/water divide, there is a strong possibility your lake does have a blue-green algae community present.

Be aware, however, that just having blue-green algae present does not mean your lake is automatically hazardous. Many lakes in Kansas typically have blue-green algae in them. Hazardous conditions occur when the amount of blue-green algae is large, and composed of species capable of generating toxins.

Photo 1: initial collected lake



Photo 2: Blue-Green Algae present

## Private Water Bodies:

Water samples for blue-green algae identification can be submitted to the Kansas State Veterinary Diagnostic Laboratory for a small fee. Contact the Kansas State Veterinary Diagnostic Laboratory at 866-512-5650 to receive water sample collection and mailing instructions.

Kansas State Veterinary Diagnostic Laboratory

1800 Denison Avenue

Manhattan, KS 66506

PH: 866-512-5650

**Stick Test:**

You look out over your lake and see a mat of green material growing on the surface. Is it blue-green algae forming a surface scum, or is it a mat of floating filamentous green algae (often called “fisherman’s moss,” although it really isn’t moss at all)? A simple test you can do is the “stick test.” Find a sturdy stick; long enough to thrust into the surface mat without letting you fall in, and see what comes back out on it. If the stick comes out looking like you thrust it in a can of paint, the mat on your lake is likely to be a blue-green algae scum. If the stick pulls out strands that look like green hair or threads, the mat on your lake is likely filamentous green algae. Although filamentous green algae can be a nuisance, when over-abundant, they do not pose a danger to health.

The stick test can fail when a particular type of blue-green algae is present. A type called *Lyngbya wollei*. This blue-green algae can form tough filamentous mats that float to the surface, similar to the mats formed by harmless filamentous green algae. However, *Lyngbya wollei* typically will have a very putrid sewage-like odor which filamentous green algae do not. *Lyngbya wollei* mats also will often produce a purple pigment in the water around them, which is also something filamentous green algae do not do.

Provided by: Edward Carney, Environmental Scientist IV

Kansas Department of Health & Environment

Bureau of Water, Watershed Planning Section