**Grimy, green and gross**

In the late summer, water temperatures are at a peak and algae and aquatic plants grow exponentially. Though algae is natural, high levels of phosphorus in some of our local lakes allow algae and aquatic plants to grow faster and larger than they normally would.

To the casual observer, one grimy, green, gross lake may be indistinguishable from the next, but there are important differences to look for.

Duckweed is a beneficial aquatic plant that floats on top of the water. From a distance, a duckweed covered pond or lake may look green and slimy, but if you look at the plants up close, you can actually distinguish little tiny leaves floating and little tiny roots dangling into the water. As the name implies, duckweed is a good food source for ducks and other waterfowl.

Filamentous green algae, which is commonly found in lakes, is a stereotypical swamp monster type of algae – gooey, blobby, and greenish brown. It can make swimming and boating unpleasant but is not toxic. Chara, a form of filamentous algae found in lakes with good water quality, has long, stringy strands and looks more like a plant without roots.

The biggest concern for human and aquatic health is blue-green algae, which usually looks like pea soup or spilled green paint in the water. Though small amounts of blue-green algae exist in all of our lakes and rivers, the algae can quickly multiply into large colonies during the summer, creating blooms that are sometimes toxic to people and animals. It is impossible to tell the difference between a safe bloom and a toxic bloom just from looking at the water. People and animals may develop skin irritation or upper respiratory problems from exposure to harmful algae blooms, and in extreme cases, dogs and other animals have even died after drinking lake water containing these toxins. Algae blooms are also problematic if they grow large enough to cover an entire lake or pond because the algae consume oxygen during the night to fuel their growth when sunlight is not available. As a result, dissolved oxygen levels in the water plummet and fish die.

In freshwater systems, phosphorus acts as a limiting nutrient for algae and plant growth, meaning the algae will keep growing until they run out of phosphorus. Most lakes get way more phosphorus than they need due to runoff from surrounding neighborhoods, businesses and farms. In Minnesota, it is illegal to apply fertilizer containing phosphorus to a lawn unless you are establishing new turf or have a soil test showing a phosphorus deficiency. Yard waste like lawn clippings, leaves and seeds also contain high levels of phosphorus and can easily be washed into storm drains that connect to our lakes and rivers when it rains. You can help to keep lakes from going green by raking and sweeping dirt and yard waste off of sidewalks, driveways and streets throughout the year and adopting your local storm drain at [www.adopt-a-drain.org](http://www.adopt-a-drain.org). [Note that the Adopt a Drain program is currently only in the seven county metro and Rochester]

Learn more about how to identify algae and other aquatic plants on the Minnesota Department of Natural Resources website: [www.dnr.state.mn.us/nr/plants/aquatic/index.html](http://www.dnr.state.mn.us/nr/plants/aquatic/index.html).