

## What is the green slime in Woodglen Lake?

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About ten days ago, we noticed a bright green substance floating on the surface of Woodglen Lake, almost like paint. After a number of emails with staff at the Northern Virginia Soil and Water Conservation District and other Fairfax County employees, my husband took a sample of the stuff out to their offices this morning. The consensus is that the green slime is blue-green algae, also known as cyanobacteria. This primitive bacterium is bright green because it actually photosynthesizes. Most blue-green algae is harmless, but some types can produce toxins that are harmful if ingested or breathed. Therefore, it would be prudent to keep your boat off the lake until the blue-green algae bloom runs its course. It is especially important to keep your dogs out of the lake. The toxins stay inside the algae, but if a dog licks itself clean after swimming or wading in the lake, it could ingest enough blue-green algae to cause illness and even death, if the strain of algae does produce toxins. And as the algae dies and releases the toxins into the water, we may see fish dying, too.

But blue-green algae is not the only algae blooming in the lake this fall. There is also an abundance of filamentous green algae. The big question is why the algae has grown in the lake. The answer to both of these algae blooms is found in the fertilizer and compost spread around lawns in our neighborhoods. An excess of phosphorus will allow the naturally-occurring algae to increase rapidly. An excess of phosphorus coupled with nitrogen will cause a bloom like we have experienced on Woodglen Lake. The warm temperatures and sunshine we have had this fall are the other factors to produce ideal growing conditions.

We can't control the temperature or the sunshine, but each of us can control the amount and kind of fertilizer that is applied to our yards. Before you allow any fertilizer to come onto your property, have a soil test done to see what type of fertilizer your yard actually needs. You can take the sample yourself and send it to Virginia Tech for testing. The soil test kits are available at the County Extension office and at all libraries. Just ask. Once you have the test results back, if you do need to add nitrogen, be sure to purchase fertilizer that has a large percentage of slow-release nitrogen. That will allow the nitrogen to stay on your yard and be used by your plants, rather than being washed into the local streams and down to the lake with the first rain after you apply it. If you think back a month or so, we had a long dry spell when lots of lawn companies were applying fertilizer. Then we had a heavy rain. Then we had a severe algae bloom. The likelihood is that the lawn companies were applying a fertilizer that contained quick release nitrogen for fall growth, especially with overseeding. But the growth was not in your yard. It was in the lake. It takes a little extra effort to do the soil test and to demand to see exactly what is in the fertilizer being applied to your yard, to make sure it contains the nutrients your yard actually needs. But if everyone made that little extra effort in the future, the lake would remain healthier for the fish and the frogs, the kids and the dogs.

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