

How to Manage Algae Growth...

To restore healthy habitats and waters!



What are Algae?

- Simple aquatic plants that thrive in conditions with an overload of nutrients, known as eutrophication.



University Lake (Indiana Clean Lakes Program, 2009)

Why are they a problem?

- Bloom-forming algae can produce a green surface cover, which shades plant and algae.
- The lack of sunlight inhibits photosynthesis, or the process by which plants create oxygen and convert sunlight into energy for growth.
- Without appropriate oxygen levels, fish and other aquatic life become stressed.
- Some algae create toxins.
- Algae also impair water quality and disrupt healthy populations by altering natural food webs.

How can I reduce algal growth? Consider these recommendations:

- Choose the right fertilizer. Buy **Phosphorus-free** lawn fertilizer for mature grass. Make sure the middle number on the bag is zero!
- Take a soil test to determine the appropriate levels of nutrients for your lawn. If you have a new or nutrient deficient lawn, consider a fertilizer low in phosphorus.
- Fertilize only once, in the fall.ⁱ
- Use a drop spreader or rotary spreader to keep the fertilizer on your lawn.
- Mow higher to develop and maintain a strong root system, an important aspect of healthy soil. Healthy, established turf grass decreases soil erosion and helps to keep nutrients on your lawn.
- Clean impervious surfaces (e.g. sidewalk, driveway) of any fertilizer spills or grass clippings to prevent them from reaching our rivers and creeks.
- Recycle grass clippings or leaves as mulch. This organic material already contains nutrients that microbes can release to replenish the soil.
- Pick up pet waste. It contains a high concentration of nutrients that can contribute to algal blooms in lakes and ponds during rainfall or storm events. Storm sewers often directly lead to streams and lakes.
- Water in the morning. Watering in the afternoon or evening leads to evaporation and fungus growth, respectively.
- Plant native species in your backyard habitat as they are better adapted to Indiana's climate. When planted in a 20ft zone around water, these species, especially tall grasses, can act as a natural buffer for lakes and ponds by filtering out unwanted sediments and nutrients.

Join the IWF Clean Water Team. Pledge online:

[www.indianawildlife.org/
phosphorus.htm](http://www.indianawildlife.org/phosphorus.htm)

How can I remove algae from a pond?

Preventive:

- Discourage geese from making your pond their water source by planting a buffer of native shoreline plants
- Clean boats of plant debris after removing from lakes
- Direct septic systems away from water
- Restrict livestock from entering water

Physical:

- Hand-removal or raking
- Remove below-ground growth. Most aquatic plants are perennial.

Habitat alteration:

- Properly manage nutrients by controlling lawn fertilizer applications
- Diminish soil erosion by establishing healthy ground cover and reducing root system disturbances
- Use aerators to slow algal growth

Chemical:

- Consider a dye, herbicide, or algicide (such as copper sulfate or chelated copper, depending on type of algae and alkalinity)
- Make sure to completely understand how and when to use the chemical



Microcystin (Indiana Clean Lakes Program, 2009)

Remember: Be cautious in properly identifying the aquatic plant and knowing the right product to use. Always follow the procedures on the label.

For more details and before using any chemical, please consult Purdue Extension's Guide of "Identifying and Managing Aquatic Vegetation" at http://www.extension.purdue.edu/extmedia/APM/APM_3_W.pdf



Read more information at Purdue's Extension (<http://www.extension.purdue.edu/store/>), Indiana Clean Lakes Program (<http://www.indiana.edu/~clp/>), and Indiana Lakes Management Society (<http://www.indianalakes.org/>).ⁱⁱ

To promote *Common Sense Conservation* and become a member, please visit the Indiana Wildlife Federation (www.indianawildlife.org).

**This project is made possible by a generous grant from Nina Mason Pulliam Charitable Trust.*

ⁱ <http://www.agry.purdue.edu/turf/pubs/ay-22.pdf>

ⁱⁱ General Sources: <http://www.ipni.net/>; <http://www.cees.iupui.edu/>; <http://www.in.gov/idem/algae/>