

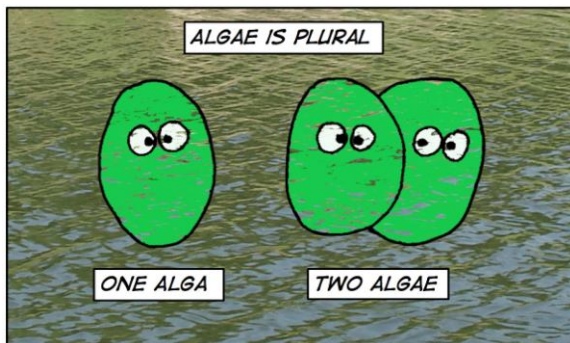
All About Algae

What Are Algae?

Algae are plant-like aquatic organisms that use chlorophyll to produce food from sunlight. They range in size and complexity from single celled bacteria to multi-celled filaments to large lake weeds.

Algae differ from plants in several ways. They absorb nutrients directly from the water they live in. Algae have no roots and produce no flowers or seeds.

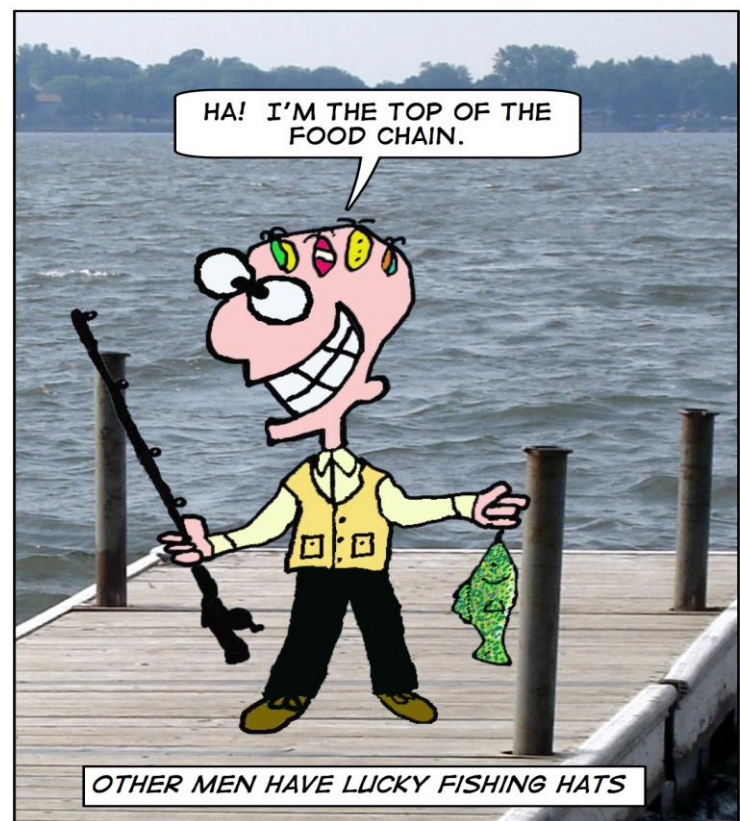
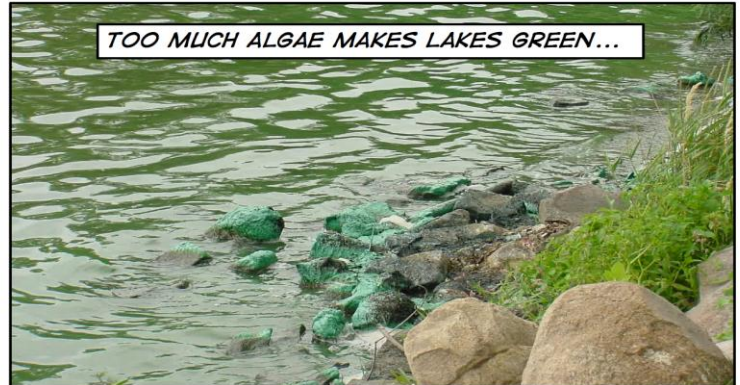
Like green plants, algae need nutrients to grow and reproduce. Phosphorus is the most important nutrient determining the amount of algae living in lakes.



Algae Are Good

Worldwide, algae produce most of the oxygen available to support animals and people. Algae provide habitat and food for other aquatic life.

Algae are an important part of a lake's food chain. They support the game fish that are so important for recreation. Algae are eaten by small aquatic creatures called zooplankton. The zooplankton are eaten by small fish that are, in turn, eaten by larger fish.



Algae Blooms Are Bad

Algae are present in Lake Okabena year around. They are most abundant during late summer when excess phosphorus is present, water temperatures are warm and winds are calm.

The most troublesome algae species in Lake Okabena is cyanobacteria. These algae gather in floating bluegreen mats, called blooms, usually in August and September.

When algae blooms are blown against a shoreline or into Whiskey Ditch, they die and decay. People sometimes compare the smell and appearance of rotting algae to manure.

Cyanobacteria blooms can produce toxins that are poisonous to people and animals. These algae blooms are ugly and stink, so people usually avoid them. Dog owners should keep their pets out of the water when algae blooms are present.



Polluted Storm Water Contributes to Algae Blooms

Storm water contains phosphorus that leads to algae blooms. Around Worthington this polluted storm water comes from agricultural fields, eroding stream banks and hard surfaces in urban areas such as roofs, sidewalks, parking lots and streets.

Phosphorus is chemically bound to the dust, soil, organic materials and fertilizers carried by flowing storm water. Streams and storm sewers transport the pollution to lakes. There the phosphorus becomes part of the bottom sediment or remains suspended in the water. In a lake, the nutrient becomes the fuel for immediate or future algae growth.

A lake's phosphorus level is the most important predictor of algal productivity. One pound of the nutrient, under the right conditions, can lead to more than five hundred pounds of algae.

Pollution Prevention Tips

Worthington residents can help prevent storm water pollution and reduce algae blooms in Okabena, Ocheda and Heron lakes. Here are some tips.

- Keep organic matter, including grass clippings, leaves, pet wastes and litter off of hard surfaces that are drained by storm sewers.
- Apply only non-phosphorus fertilizers to lawns and gardens. Be sure not to exceed the recommended fertilizer application rate.
- Do not wash cars on the street or driveway. Soaps and soil from cars contain phosphorus and other pollutants. Wash vehicles on the grass or at a commercial car wash.
- Sweep driveways rather than washing them with a hose. Soil and grime from driveways is carried to storm sewers. Sweeping saves water too.
- Clean up soil tracked or spilled onto the street during construction and landscaping projects.