

Blue-Green Algae

Josh Payne, Ph.D.

What is a blue-green algae bloom?

Cyanobacteria (blue-green algae) are microscopic organisms that can be found in all types of water. Being photosynthetic, they utilize sunlight to support life. Cyanobacteria, one of the oldest organisms on earth, have been linked to human and animal illnesses around the world. A blue-green algae bloom occurs when algae that are normally present in the water grow rapidly. This process may cause water that is normally clear to turn cloudy within days. The blooms may range in color from blue to bright green, brown or red and may resemble paint floating on the water. As algae in a bloom die, a foul odor is usually produced.

What causes blue-green algae?

Blue-green algae blooms can occur in warm, slow moving water that is nutrient enriched. We often see blooms occur during hot, dry summertime conditions. Nutrient sources may include commercial fertilizer runoff from both urban and agricultural settings, manure runoff and failing or leaky septic tanks.

Are there human and animal health concerns?

Some cyanobacteria can produce toxins that can be harmful to humans and animals. Swallowing low doses can cause gastroenteritis (vomiting and diarrhea) while higher doses may affect the nervous system and liver and even cause sudden death in animals. The wind can actually blow the algae bloom to one side of the water source, thus concentrating it. Dead animals may be observed near these concentrated areas. Human topical exposure may cause rash, hives or skin blisters. Children are considered a higher risk for illness than adults.

What are some health and safety tips for humans and animals?

- Do not swim or water ski in areas where algal blooms are present. If you are exposed to a bloom, immediately rinse off with clean water.
- Do not let your pets or livestock graze near, drink or swim in water where you see blue green-algae blooms on the surface. If your pet does swim in a bloom, immediately rinse them off so that they don't lick the algae from their fur.
- Seek medical attention if you think that you or your pet have ingested high doses of toxins.

How can I reduce the occurrence of blue-green algae blooms?

By reducing nutrient loading to local lakes, streams and ponds, we can help reduce the occurrence of algal blooms. Urban homeowners and rural landowners should conduct annual soil tests before applying fertilizer to their yards or fields. Soil tests will determine plant nutrient needs and prevent over-application of nutrients. Leaky or failing septic systems should be upgraded. Maintaining a buffer of natural vegetation around ponds and lakes filters nutrients in runoff. For more information on how you can reduce nutrient inputs to your watershed or to submit soil samples for testing, visit your local County Extension Office.

