

## Blue-Green Algae

Blue-green algae (BGA), or cyanobacteria, are an ancient group of free-floating, microscopic organisms naturally present in reservoirs, lakes, and streams. BGA is usually found in low numbers but can become abundant under the right conditions. BGA is mostly found in very warm, shallow, and undisturbed waters that receive sunlight and excessive nutrients. Within a span of just days, a clear lake or pond can become cloudy or deep green with algae growth which resembles spilled green, blue, red, or brown paint on the water's surface. This is called an algal bloom. While some BGA blooms are not toxic, they can produce and release toxins into the water that can cause rashes, and liver damage and impact the nervous system. These toxins can be harmful to the health of humans and animals. Unfortunately, you cannot tell by appearance alone whether a bloom is producing toxins.

### Q: Why be concerned about BGA?

- The toxins produced by BGA may cause a variety of reactions, most commonly, upper respiratory problems, eye irritation, skin rashes, vomiting, and diarrhea.
- The consumption, inhalation, or exposure of BGA can be unsafe to humans and animals.
- Children are more vulnerable than adults because children tend to play in the water and are more likely to drink or accidentally swallow the water in which they are swimming.

### Q: Can livestock and pets be harmed by BGA?

- Pets and livestock are particularly susceptible to the harmful effects of BGA.
- Do not allow pets or livestock to swim in or drink water that appears to have BGA.
- Livestock that use ponds as a water source can inhale and consume large quantities of BGA. If toxins are present, this can lead to severe illness and even death.

For information about pets and livestock, contact the Oklahoma Department of Agriculture, Food and Forestry at (405) 521-3864 or visit <https://ag.ok.gov/>. If an animal has become ill after encountering BGA, contact your veterinarian immediately.

### How can I tell if BGA is present?

- BGA may look like:
  - thick pea green soup
  - spilled green, red, or brown paint on the surface of the water.
- When BGA washes up on shore, it may form a thick mat or scum on the beach.



*Above: Smaller pieces of blue-green algae floating in a pond.*

*Below: A close-up photo of blue-green algae.*



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## Q: What are DEQ's Responsibilities?

DEQ's primary role with respect to BGA blooms is to monitor and assist public water supplies so that algal toxins are not present in drinking water.

## Q: How can I find out if a BGA bloom is affecting any Oklahoma lakes?

Check <https://www.travelok.com/state-parks/lake-conditions>, a website of current lake conditions maintained by the Oklahoma Department of Tourism and Recreation. This will also list any BGA blooms that are present in the lakes of Oklahoma. Alternatively, you may contact the lake's manager.

## Q: What should I do if I become ill after being exposed to BGA?

If you become ill after encountering BGA, visit your physician immediately and contact the Oklahoma State Department of Health at **(800) 234-5963**.

## Q: How can BGA be prevented?

- Avoid using more lawn fertilizer than is recommended.
- Minimize the runoff of excessive nutrients such as animal manure, septic leach fields or lawn fertilizers.
- Use phosphorous-free fertilizer where possible.
- Maintain native vegetation along shorelines and streams. Native plants do not require additional fertilizer and the growth along the banks helps to filter water.
- Minimize activities that result in soil erosion.

## Q: What should be done if there appears to be a BGA bloom?

- Avoid contact with the water.
- Keep children, pets, and livestock away from the affected body of water.
- To report a bloom, contact DEQ at **(800) 522-0206**.

**For more information, contact DEQ's State Environmental Laboratory at (405) 702-1000 or by email at [selsd@deq.ok.gov](mailto:selsd@deq.ok.gov).**



*Close-up of blue-green algae.*



*Above: Image of non-harmful algae.*

*Below: Close-up of non-harmful algae.*

