

Blue-green algae invades inland lakes

Farm & Dairy

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Talk of the quality of the water in our lakes and streams has been growing over the past several years, especially with regard to Harmful Algal Blooms.

If the recent events in Toledo and the Lake Erie region are any indication, it is a discussion that is going to continue to grow. Harmful Algal Blooms are massive growths of microscopic organism. These organisms are not technically algae, but a type of photosynthetic bacteria known as blue-green algae or cyanobacteria.

Toxic producers

What sets HAB species apart from other types of blue-green algae is that they have the ability to produce toxins. The toxins produced from HAB are more toxic than cyanide and can affect neurological functions and cause liver damage or skin reactions. For reasons unknown, a severe HAB does not always produce high concentrations of the toxins. While these species of cyanobacteria are normal in our lakes and streams, the issue arises when their populations explode.

Feeding blooms

Things such as warm weather and lots of rain can increase the likelihood of a severe bloom occurring. While we can't control weather related factors there is one factor we can control. Like any living thing, blue-green algae need nutrients in order to grow and to thrive. Therefore, by reducing the nutrient input into our waterways — especially phosphorus — we can reduce or prevent HAB from occurring.

Into inland lakes

By now we have all probably heard about the major problems HABs have caused at Grand Lake-St Mary's, Buckeye Lake, and most recently, Lake Erie, where the water supply to the city of Toledo was shut down for two days in early August. However, HAB aren't limited to other parts of the state and could easily become a major issue in our own inland lakes.

Over the past several years, monitoring done by the Ohio Lake Management Society has found these cyanobacteria in many lakes throughout the eastern Ohio. The good news is that levels of toxins in the water have remained low throughout this time, never reaching a level warranting the closing of any beaches or lakes, or shutting down water use in the region.

Blame game

Accompanying this discussion of HAB is finger pointing: who is to blame for the situation we find ourselves in? Oftentimes that finger ends up pointing at the agricultural community. In reality, it is a complex system. Nutrients, especially phosphorus, are coming from wastewater treatment plants, broken septic systems, lawn fertilizers, and urban runoff. They are coming from farms, in the form of fertilizer runoff and livestock waste. Instead of trying to pass the blame or argue about how much our farms are contributing, we need to take this opportunity to make the changes to reduce agricultures input of nutrients into our waterways.

Good for all

The good news is that the changes that are good for water quality are also good for our farms. Every pound of phosphorous that ends up in the stream is a pound not available for your crop. Livestock drinking from clean water sources will be larger and healthier, bringing more money when sold.

If you are ready to begin looking at the changes that can be made on your farm, stop by your county's Soil and Water Conservation District or Natural Resource Conservation Service offices. We can provide technical or financial assistance to implement many practices to improve water quality.

Let's work together and ensure that agriculture does its part to reduce the nutrients heading to our lakes and streams. Together, we can ensure the quality of our lakes and streams and better our farms at the same time.

About the Author



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