

Blue-Green Algae: Identifying, testing, and reducing bloom frequency

The Situation

Blue-green algae is common throughout the state in lakes, ponds, and other water bodies. Its blooms, called harmful algal blooms (HABs) can produce dangerous toxins, causing very serious health concerns for Kansas citizens, livestock, and pets. Blooms are unpredictable, and there is no guaranteed way to prevent HABs; however, best practices can reduce the frequency of HAB-associated issues. Citizens should be aware of the risks associated with cyanobacteria growth and exposure to HAB toxins and have available resources to make immediate, onsite, and informed water-use decisions.

What We Did

We improved knowledge about identifying algal blooms, onsite testing methods for HABs, and best practices for reducing the bloom frequency. Together, our PFT created and delivered a series of in-person and virtual trainings for agents and citizens, with additional supporting resources (e.g., social media posts, press releases, fact sheets, and equipment.) This information will empower both agents and citizens who face questions about the possible presence of HABs in local waters.

Outcomes

We provided resources to educate and inform about blue-green algae. This included an agent training (20 attendees) on HABs; a recording is available for those who could not attend. PFT members also offered community education including two trainings on pond management (Johnson County, 69 attendees); the Winter Ranch Management Program (Pottawatomie, Marshall, and Riley Counties) included specific sessions about HABs. PFT members educated the public by distributing press releases about the effects of HABs to local newspapers and discussing blue-green algae on radio shows like *Agriculture Today*.

PFT members reported more than 50 contacts with the public about pond management or other HAB-related questions. These ranged from question-and-answer sessions to in-person visits to test ponds for toxins. To assist agents, the PFT purchased and distributed equipment to collect and test water samples in their communities. The PFT also purchased a series of rapid tests and evaluated them for efficacy and ease-of-use in the field. We continue to collect data on these and plan to offer guidance and advice on these products in future.

Success Story

At the Winter Ranch Management Program, an overwhelming majority (>90%) indicated a moderate to significant level of change in their knowledge of: BGA identification, risk factors and management, sampling and testing, and current research. Nearly all participants (99%) indicated they were likely or very likely to implement BMPs to reduce BGA in their livestock water.

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Figure 1: Dr. Joe Gerken sampling a pond in Harper County for blue-green algae.



Figure 2: The Natural Resources PFT sponsored a blue-green algae rapid test trial comparing two tests to vet med test results.