

**Week of July 11<sup>th</sup>-15<sup>th</sup> 2016**

**POST ROCK EXTENSION ANSWERS**

**Neil Cates, Post Rock Extension District Agent – Livestock Production  
K-State Research and Extension**

When it comes to ponds in our pastures, we often think about quantity. Will I have enough water to get my cows through the grazing season? What we often over-look is the quality of that pond water. Blue-green algae is something you should have on your radar. Typically, we start seeing blue-green algae blooms during the latter part of summer, but our early hot weather has created perfect conditions for the algae.

***Why should I be concerned about blue-green algae?***

Blue-green algae can be toxic to animals and people. Kansas State Universities Veterinary Diagnostic Lab has already confirmed two cases and another suspected case of cattle deaths related to the algae this summer. The name blue-green algae is misleading because it is basically a bacteria (cyanobacteria). Health problems can arise when animals come into contact with the various toxins produced by the cyanobacteria. The most prominent problem involves a toxin, which affects the gastrointestinal tract and liver. When animals are exposed to this toxin, they may experience vomiting or diarrhea. If the exposure is severe, it can be lethal and cause liver failure. Muscle trimmers and open mouth breathing are other clinical signs.

Dogs are more commonly affected by the algae because of their behaviors around water. If you suspect your dog has been in waters containing a blue-green algae bloom, you will want to bathe them immediately. Be sure to protect yourself during this process and wear protective gloves. If your dog begins exhibiting clinical signs, see your veterinarian immediately.

***What causes blue-green algae?***

Problems with blue-green algae occur only under specific environmental conditions. Hot, dry, calm days stimulate reproduction of the organism, and under normal conditions, the algae are homogeneously suspended in the water. When large numbers of algae start to die, gas is produced inside the cells, and the colonies tend to float to the pond surface.

After this, even a gentle wind will concentrate the organisms downwind to form a scum on or just below the pond surface. Rain or any disturbance of the water tends to break up the scum and make poisoning less likely. Living blue-green algae start out as green in color and turn blue after the algae die and dry on the surface or shoreline. Blue-green algae are not the type that grows in mats of plant material along shorelines. When picked up, it will disperse in the water and does not hang together in a stringy mass. The algae bloom almost has the appearance of green paint spread across the surface.

## *Testing*

There are a couple of tests that you can perform on your own. Those being the “jar and stick tests”. They are relatively simple to conduct and are free of charge. For information on how to conduct these tests, contact your local extension office, for an instructional handout or to speak with myself. These tests will not tell you what kind of bloom it is or if toxins are present, but serves as an indicator to whether blue-green algae are present and if precautions should be taken. Samples can also be submitted through our office to the Veterinary Diagnostic Lab for a more accurate determination. There are specific collection instructions for all tests, so be sure to contact us prior to coming to the office to submit your sample.

Once a blue-green algae bloom is suspected, it is best to fence off the concentrated areas of the pond or the whole pond if the bloom is wide-spread. There are proactive and reactive measures that can be taken to prevent and control blue-green algae. However, some of the control options may create alternative problems. For more information on blue-green algae please call myself, Neil Cates at 785-738-3597. I would be happy to assist you in testing or to discuss the proactive and reactive measures available.

*Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Osborne, Smith, and Mitchell counties. Neil may be contacted at [ncates@ksu.edu](mailto:ncates@ksu.edu) or by calling Beloit 738-3597, Lincoln 524-4432, Mankato 378-3174, Osborne 346-2521, Smith Center 282-6823. Visit our website at [www.postrock.ksu.edu](http://www.postrock.ksu.edu) and follow our blog at: [postrockextension.blogspot.com](http://postrockextension.blogspot.com). Also follow us on Facebook at: Post Rock Extension*