

SDEHA NEWSLETTER

WINTER 2016



WANTED :

A new President Elect. There is currently no successor for current President Scott Hipple.

INSIDE THIS ISSUE:

Ohio State scientists study runoff to stop toxic algae in the Great Lakes 2 & 3

Interpersonal skills in the Practice of Food Safety Inspections 4

SDEHA Annual Educational Conference 5

Editor: Zack VanDeRostyne

A message from the President

Greetings members:

It had been over a year since our previous conference and the 2016 conference occurred from September 27 – 28.

Since last year there are new environmental and health issues that have appeared in the news. The most recent being the Zika virus, which is associated with birth defects in newborn infants. This disease has also caused several deaths associated with older and immunocompromised individuals. We are fortunate that the mosquitos associated with the spread of this disease are not found in South Dakota. Unlike the West Nile virus, that continues to be an issue in our state.

On the environmental side, the EPA wants states to develop additional nutrient limits that include nitrogen and phosphorus for wastewater system's discharges that enter the waters of the state. These new limits will likely mean increased treatment requirements for city wastewater systems and increased cost to the consumer.

The EPA's proposed air quality limits would likely prevent coal from being a viable source of energy in the production of electricity. This would force the few coal power plants in South Dakota to switch to natural gas or close.

The bed bug issue has been on the rise in the last couple of years; as the insect seems to be developing a resistance to the chemicals commonly used for treatment.

There is never a dull moment in our quest to protect the public and the environmental. I hope to see you at the conference – Sincerely President Scott Hipple.

Ohio State scientists study runoff to stop toxic algae in the Great Lakes

JUDY WOODRUFF: The algae bloom that turned part of Lake Erie toxic just a few weeks ago is bringing a new level of attention to runoff and several other troubles in the Great Lakes.

Yesterday, the federal Environmental Protection Agency announced that it will provide \$12 million to the region to help address those problems.

Reporter Christy McDonald of Detroit public television has our story.

CHRISTY MCDONALD, Detroit Public Television: Lake Erie has long been considered the canary in the coal mine for the Great Lakes system. The southernmost, warmest, and shallowest of the five lakes, Erie provides an ideal habitat for an unwelcome summer visitor, algae, particularly the toxic kind that caused drinking water problems for Toledo, Ohio, several weeks ago. And that makes it an ideal place to look for solutions to that problem. Here at the Stone lab in Put-in-Bay, Ohio, they have been studying algal blooms since the '70s. At that time, significant improvements were made to sewage treatment plants, ushering in 30 years of improved health for Lake Erie.

But in the early 2000s, large algal blooms started to reappear, with the worst on record occurring in 2011. For Jeff Reutter, director of the Ohio Sea Grant College and Stone Lab at the Ohio State University, that algae bloom was like nothing he'd seen before.

JEFF REUTTER, Director, Ohio Sea Grant College and Stone Lab, Ohio State University: The bloom in 2011 really got everybody's attention. That bloom was two-and-a-half times worse than anything we'd ever seen before. And it was really a bloom like I'd never experienced and I have been working on Lake Erie since 1971. And I have seen these before, but I had never seen a bloom that when you hit it with a boat, it actually slowed you down, it was that dense.

CHRISTY MCDONALD: He believes that bloom and others like it are caused by excess potassium, nitrogen and other byproducts of fertilizer run off from the farms and towns that surround Lake Erie.

JEFF REUTTER: The algae are very much like the grass on our lawns. You know, you put fertilizer on it, it's going to have nitrogen, potassium, phosphorus. It's going to make your grass grow. We put it in Lake Erie, and we get algae.

CHRISTY MCDONALD: Reutter says those ingredients can be coming from a variety of sources.

JEFF REUTTER: When we look at different places around the country where they're having harmful algal blooms, some of them are going to be driven by agricultural loading, but some of them are going to be poor sewage treatment plants or a bunch of failing septic tanks, but, in Lake Erie, it's primarily agriculture."

CHRISTY MCDONALD: And climate change is proving to be an aggravating factor.

JEFF REUTTER: Most of the phosphorus that comes into the lake, probably over 80 percent comes in during storms. Climate change leads to more frequent severe storms.

And if we have most of the phosphorous coming in from agricultural runoff, combined sewer overflows, runoff off our lawns, if most of that's coming in during storm events, and you have more storm events, you're simply going to get more phosphorous. It's that simple.

CHRISTY MCDONALD: And more phosphorous encourages the growth of a form of algae known as cyanobacteria. It produces microcystin, the main toxin of concern on Lake Erie. And although Toledo's recent bloom was actually quite small, the densest portion of the harmful algae clustered right over the intake for the city's water treatment plant, turning the tap water toxic. Justin Chaffin, research coordinator at the Stone lab, tests samples from surrounding water treatment facilities to monitor whether the water is safe for drinking.

JUSTIN CHAFFIN, Research Coordinator, Stone Lab: If you look at some of your known toxins that you're familiar with, microcystin is about on par being with something like cyanide, or — and it's just below dioxin, so it's a really potent toxin.

Continued on Page 3

"When we look at different places around the country where they're having harmful algal blooms, some of them are going to be driven by agricultural loading, but some of them are going to be poor sewage treatment plants or a bunch of failing septic tanks, but, in Lake Erie, it's primarily agriculture."



Ohio State scientists study runoff to stop toxic algae in the Great Lakes contd.

CHRISTY MCDONALD: The United States has no national standard for these toxins, but Ohio has adopted the standards of the World Health Organization, which recommends one part per billion for drinking water. On August 2, 2014, the toxin levels in Toledo's water came in at three parts per billion. Yet the most alarming aspect of that toxic bloom is that it arrived in early August.

JEFF REUTTER: It was much earlier than we had anticipated seeing a really bad bloom. Scary for all of us, because we know that this bloom is going to stay around here until well into October, maybe the end of October, and it probably won't reach its peak until September. So, the big concerns are, the worst is likely still yet to come.

CHRISTY MCDONALD: Chaffin has also been studying the toxic algae on a molecular level. His findings provide some clues into how we may be able to stop these blooms from spreading.

JUSTIN CHAFFIN: During that summer of 2011, we did a molecular study where we tracked the cyanobacteria, the microcystis bloom, throughout the lake and throughout time. Now, that cyanobacteria bloom that started in Maumee Bay in mid-July was the same microcystis that ended up off of Cleveland in October. So, with that molecular study, we know that if we stop a bloom in Maumee Bay, we will stop a bloom by Cleveland or by Sandusky. So, if we stop it in Maumee Bay, the rest of the lake, it should be good.

CHRISTY MCDONALD: Currently, the only way to stop a bloom from moving is to stop it from forming in the first place. And the only way to accomplish that is to reduce the amount of phosphorous coming into the lake.

JEFF REUTTER: I don't think anybody thinks that we're going to make it colder real soon. So we can't address climate change to say, well, the solution's climate change. All we got to do is stop it. The only thing that we control is phosphorus load. And that means we have to change our behavior. Our goal has to be to reduce the phosphorous by about 40 percent. But that's not something that I think anybody believes is going to happen real quickly. So the first thing that we have to do is arm our water treatment plants with the right technology, the tools, make sure that the people understand, the people that manage the plants understand how to take the toxins out that come into the plant, because, clearly, toxins will come in.

CHRISTY MCDONALD: We are now entering into prime algal bloom season. Some water treatment facilities are testing for the toxins, but those tests aren't mandatory. Municipalities can only look to scientific research from places like Stone Lab to understand algal blooms and to prepare for the possible threat to their water supply.

See the entire presentation and video at:

<http://www.pbs.org/newshour/bb/michigan-scientists-study-runoff-stop-toxic-algae-great-lakes/>

Interpersonal Skills in the Practice of Food Safety Inspections: A Study of Compliance Assistance

Abstract Conducting food safety inspections requires interpersonal skills and technical expertise. This requirement is particularly

important for agencies that adopt a compliance assistance approach by encouraging inspectors to assist industry in finding solutions to violations.

This study describes a study of inspections that were conducted by inspectors

from the Michigan Department of Agriculture and Rural Development Food

and Dairy Division at small-scale processing facilities. Interactions between

inspectors and small processors were explored through a qualitative,

ethnographic approach using interviews and field observations. Inspectors

emphasized the importance of interpersonal skills such as communication,

patience, empathy, respect, and consideration in conducting inspections.

This study examines how these skills were applied,

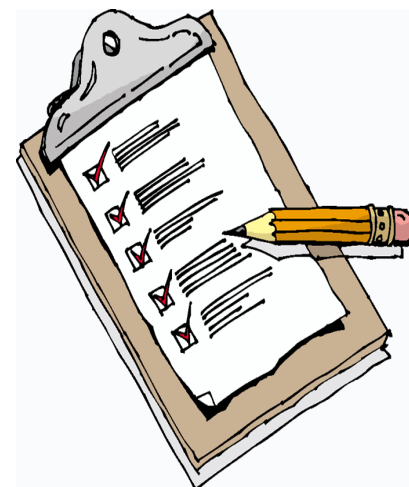
how inspectors felt they

improved compliance, the experiences through which inspectors attained

these skills, and the training for which they expressed a need. These results

provide new insights into the core competencies required in conducting

inspections, and they provide the groundwork for further research.



For the full article please search the article title online or try these links to access :

<http://www.southernbiosafety.wildapricot.org/resources/Pictures/Buckley%202016%20Interpersonal%20Skills%20in%20the%20Practice%20of%20Food%20Safety%20Inspections.pdf>

or

<https://www.neha.org/node/58734>



SDEHA Annual Educational Conference

The annual 2016 SDEHA conference was held on September 27th and 28th in Sioux Falls and was well attended by the membership. The conference included a number of local speakers as well as a Federal Consumer Product Safety speaker. The association conducted its annual meeting during the conference.

The conference began on the afternoon of September 27th and featured several speakers, which included a presentation by Jessica Lantgen, Sustainability Coordinator for the City of Sioux Falls Public Works Division. Ms. Lantgen spoke to us about recycling within the City of Sioux Falls and national trends. That presentation was followed by Kevin Stork discussing the Virginia Graeme Baker Act as well as other Consumer Product Safety concerns. Dominic Miller, with the City of Sioux Falls Environmental Health team, followed that with a presentation about the newly adopted Food Handler Training Program of the City of Sioux Falls. This training is a brief online course and assessment being offered to area businesses who wish for their employees to gain a greater understanding of food safety and who may not have access to larger programs (such as Serve Safe) due to obstacles such as financial constraints.

The association held its annual meeting and meal at the end of day 1. The President and other members discussed the absence of a President Elect and the necessity to find one. President Scott Hipple discussed ongoing efforts to build an association website that would create more of a presence for the association, disseminate information, and encourage member participation. It was decided that the website should feature a copy of this newsletter.

The second day of the conference on September 28th was a morning session and was kicked off by a video of a talk about the Flint, Michigan water crisis that was presented at the NEHA national conference. That in depth review was followed by Denise Patton, Owner and Operator of Dakota Bedbug Detection. Denise brought her bedbug sniffing Beagles to offer a great demonstration of their effectiveness in finding the little critters. These dogs were able to perform on demand even in front of the many people in attendance at the conference. Their use in hotels or homes is beneficial when trying to locate the potential source of an infestation. The conference was ended with a wonderful tour of the new Indoor Aquatic Facility that had just recently been completed and was not yet open to the public.

Thank you to all who attended the annual conference of the SDEHA. We recognize that we are all faced with departmental budget and time constraints that can make attending the conference a bit of a challenge. We want to thank the speakers who gave their time to present and especially thank the forces behind organizing the conference. **Getting together at least once per year and sharing what we see every day in the field has great value.** We wish a blessed 2017 to all of you.