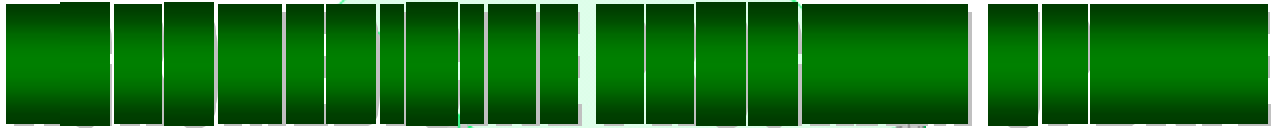


The Newsletter of the Clemson University / MUSC Agromedicine Program



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PROGRAM NOTES

>Apologies for the late delivery of last month's Update. A delay getting envelopes for mailing was the culprit.

>It's June, time for saying "Goodbye" and "Best Wishes" to our third year residents and welcoming our new first years. The academic cycle goes on!

>June also brings hurricane season and slightly higher levels of anxiety on the coast!—as well as more invitations to speak on heat-related illnesses and insect bites and stings. Let us know if you'd like a presentation for your civic, church or other lay or professional organization. Dr. Frithsen and I have just updated our presentations on heat and insects for presentation to the folks at Arbogen in Summerville. The presentation was videotaped for use with other Arbogen health and safety groups in the region. Call if you'd like our slides or more information about a talk for your group. Thanks for your invitations!

>The North American Agromedicine Consortium (NAAC) will meet later this month in Lancaster, Pennsylvania. This year's meeting will occur during the National Institute for Farm Safety Annual Conference, June 22-26.

>Membership in NAAC is open to all. One of the benefits of membership is a discounted subscription to the Journal of Agromedicine. More details at www.agromedicine.org

RECENT CONSULTS

>"Bird Mites" were the subject of a recent call. The caller had received multiple bites on her torso, armpits and arm while sleeping. Her bedroom had a closet that had once been open to the outside, above which birds had built a nest or nests. She had diagnosed her problem as "bird mites" based on a reading on the internet.

In addition, she had collected samples for identification by the Cooperative Extension Service.

Her question was, "What should I do for treatment?" The answer: Wait for confirmation/identification of the problem pest prior to any treatments except those to control symptoms.

There are only two human-associated parasitic mites—scabies and the hair follicle mite. There is specific therapy for scabies (permethrin 5% cream) and the hair follicle mite is very rarely symptomatic (though 25-100% of us have them). Mites which infest other species (mice, birds, bats, cats, dogs, etc) or organic matter (cheese, ham, grain, flour, etc) may temporarily attach to humans, but don't like our "taste" and do not infest us.

If birds or bats or mice living in our homes produce a "mite problem" the treatment is primarily removal of the host (birds, bats, mice, etc). Local treatment with hydrocortisone cream and oral antihistamines will take care of the temporary itch/burning sensation. Mites without a preferred host generally die within a few days.

For further information on mite infestations and treatment, see:

<http://www.idph.state.il.us/env/health/pcmities.htm>

FROM THE LITERATURE

>Fatalities in Livestock Manure Storage and Handling Facilities

77 fatalities were reported in the US over a 29 year period (1975-2004). Over half of the fatalities involved dairy operations and 21% involved persons under the age of 16. 34% happened during repair or maintenance operations on manure handling equipment and 22% during a rescue attempt on another person. Asphyxiation was the most frequently identified cause of death with elevated levels of sulfide in blood in some cases. Peak incidence was during the hottest part of the summer, often during transfer of manure for application to cropland.

--Beaver R, Field W. Summary of Documented Fatalities in Livestock Manure Storage and Handling Facilities 1975-2004. J Agromed 2007;12(2):3-23

>Machine for water sampling

Researchers at Wood's Hole Oceanographic Institute have developed a new tool that could help to reduce exposure to harmful ocean pathogens. The Flowcytobot is an automated device that counts and photographs microscopic plants in underwater settings. The information from the device is relayed to

an onshore station where researchers can review the data to determine if there is an increase in potentially harmful bacteria. That information can then be used in conjunction with local water sampling to determine if shellfish harvesting closures are indicated. A recent success story for the Flowcytobot occurred in the Gulf of Mexico where a bloom of *Dinophysis acuminata* was detected. *Dinophysis acuminata* is harmful marine algae that causes diarrhetic shellfish poisoning; symptoms of this include nausea, vomiting, abdominal cramping and diarrhea. Once shellfish are contaminated with this algae, they will remain tainted as cooking does not destroy the toxin. Researchers working with the Flowcytobot noted an increase in *Dinophysis acuminata* and the bloom was confirmed with more localized sampling. This led to temporary closures of some shellfish harvesting areas and a recall of some previously harvested shellfish. No illnesses were reported, an important advance, as in the past human illness would have been the first evidence of increased harmful marine algae.

For more information:

<http://www.photonics.com/content/news/2008/April/15/91306.aspx> --Ivar Frithsen, MD

>Eye on Iodine

Before iodization of salt, millions of Americans had iodine deficiency. In the first

National Health and Nutrition Examination Survey (NHANES I) in the early 70's, only 1% of pregnant women had urinary iodine levels below 50 micrograms/L. By the 2000-2001 NHANES more than 7% of pregnant women had below 50 micrograms/L.

Where did the iodine go? Only 20% of food salt is iodized and most of that is sold in grocery stores. Most food processors and restaurants never adopted iodized salt because it wasn't required. In addition, a recent study from the University of Texas at Arlington showed that 53% of iodized salt samples had lower iodine levels than recommended by the US FDA. The study also showed that exposure to high humidity diminishes iodine in salt.

No one endorses greater salt intake, rather increased iodine content of the salt that is ingested. Since prenatal iodine is probably most important, until food processors adopt iodized salt, another approach is to require iodine in all prenatal vitamins (only 50% of prenatal vitamins now contain iodine).

--Washam C. Forum: Diet and Nutrition. Environ Health Perspect 2008;116:5:A200

>For copies of any articles referred to in this section, contact our office.