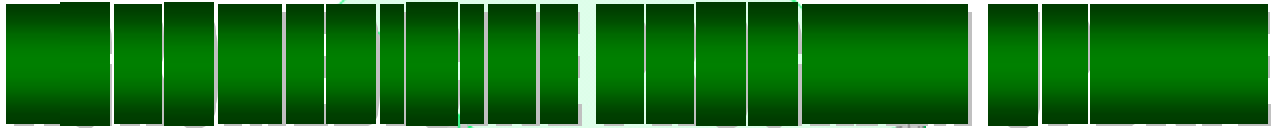


The Newsletter of the Clemson University / MUSC Agromedicine Program



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PROGRAM NOTES

>Thank you for your calls and referrals. We continue to appreciate your trust and willingness to share your questions and interesting cases/situations with us.

>Presentations to medical students, beekeepers, extension groups are scheduled over the next few weeks. Call us if you have programming needs! We are happy to develop new topics that are of interest to your groups. Anything that has to do with production or use of food and fiber is fair game, as is anything related to the environment.

>We have received data on emergency department visits and hospitalizations for pesticide poisoning for 2002-2006 from the SC Office of Research and Statistics. We'll be reviewing the data and plan to complete a paper summarizing it in the next two months. A quick overview of the data suggests that this 5 year period is similar to the previous 5 years—about 30 hospitalizations/year for pesticide poisoning and 5-6 times that

many emergency department visits.

RECENT CONSULTS

>Consults in the last month have ranged from concerns about mercury exposure in fish to a worker in an animal shelter with vague systemic symptoms thought possibly due to exposure to quaternary ammonium compounds used in cleaning, to a cotton farmer with adrenal failure and cardiomyopathy (what role, if any, did farm chemicals use over 40 years play?), to the usual late winter/early spring symptoms that are due to indoor mold or perhaps a new burst of tree pollen.

EASTER "PET" SAFETY

With Easter just around the corner, many people will be thinking about getting chicks and ducklings for their children, but this may put kids at increased risk of contracting *Salmonella*. The CDC and SC DHEC point out that due to the high demand for chicks at this time of year, increased stress on the birds makes them more prone to disease and *Sal-*

monella is more likely to be shed. "Healthy Pets Healthy People," is a very informative CDC website that includes information on a wide range of diseases transmitted from animals to humans and includes a section on Easter chicks. DHEC also has issued a news release on this topic for several years; a link to the most recent is also included below.

<http://www.cdc.gov/healthypets/index.htm>
<http://www.scdhec.gov/administration/news/2007/nr20070405-02.htm>

FROM THE LITERATURE

>ASTHMA AND ALLERGENS

Up to 30 million people have been diagnosed with asthma in the United States making it one of the most common chronic diseases. A wide variety of indoor allergens have been implicated as playing a role in triggering symptoms associated with asthma. These allergens are generated from various organisms in-

cluding household pets, rodents, cockroaches, dust mites and mold. Two recent studies have examined the relationship of asthma symptoms to allergen exposure. The National Survey of Lead and Allergens in Housing was conducted by the National Institute of Environmental Health Sciences and the US Department of Housing and Urban Development. This study included survey data and sample collection from 831 housing units inhabited by over 2,400 individuals from 75 locations across the United States.

Cat, dog and mold allergens were the most common with detectable levels in at least one room of essentially all homes studied. Slightly more than half of homes (51.5%) had detectable levels of all 6 allergens that were tested for and many homes (46%) had 3 or more allergens at increased levels. Asthma symptoms were noted to be increased among asthmatics with known allergies who resided in dwellings with high allergen burdens. This cross sectional study adds to a large body of evidence that shows an association between allergen exposure and asthma symptoms. A recent randomized controlled trial examined the effect mold remediation on asthma symptoms.

In this English study, asthmatic patients were asked about the presence of mold in their homes. Those who

reported mold had this confirmed by a trained observer who inspected the homes. The houses were then randomly assigned to either have mold remediation and fan installation or no intervention. Initial data was obtained on 95 subjects in 68 intervention houses and 87 subjects in 63 control houses although several were lost to follow up. At 6 months post-intervention there was a net improvement in breathing reported by 52% of those subjects in the intervention group compared to 0% in the control group. It is also notable that mold was found in new locations in 40% of the intervention houses after one year. This study had several limitations including low rates of recruitment for eligible subjects and a lack of objective data; however, it shows in a randomized controlled trial that asthma symptoms can be reduced by controlling allergen exposure. Based on the results of these and other studies, asthmatics may benefit from counseling to include ongoing allergen exposure reduction as part of their overall treatment plan.

References:

Salo PM, Arbes SJ and Crockett, PW, et al. Exposure to multiple indoor allergens in US homes and its relationship to asthma. *J Allergy Clin Immunol.* 2008; 121(3): in press.

Burr ML, Matthews IP, Arthur RA, et al. Effects on patients with asthma of eradicating visible indoor mould: a randomized con-

trolled trial. *Thorax.* 2007; 62: 767-772.

--Ivar Frithsen, MD

>BROWN RECLUSE AND OTHER RECLUSE SPIDERS

Rick Vetter, noted entomologist at the University of California-Riverside Campus has published a new review of the Brown Recluse Spider (BR). His map of the distribution of *Loxosceles reclusa* (BR) shows a little more of the extreme northwest portion of the state in its range. His bottom lines are that BR bites are rare to non-existent in areas outside its range, that only a small portion (probably around 10%) of BR bites actually cause a necrotic skin lesion, and that persons with multiple "bites" have probably not been bitten by a spider, since they usually bite only once as a "last ditch" defense before they are crushed between the skin and another object.

Vetter RS. Brown recluse and other recluse spiders. Pest notes. Publication 7468. Univ Cal Agriculture and Natural Resources, January 2008.

Please contact the Agromedicine Program office for copies of these articles.

Closing thought:

You may not know all the answers, but you probably won't be asked all the questions either.

--Anonymous