

AGROMEDICINE PROGRAM UPDATE

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PROGRAM NOTES

> Thanks to Greenville County Extension Agent Danny Howard and McCormick County Extension Agent Wallace Wood for invitations to speak in their communities. The Piedmont Beekeepers heard a presentation on “Bee Stings: Problems and Possibilities” and we discussed “Mold/Mildew and Radon” at the McCormick County Farm Bureau’s Annual Meeting. Other groups heard presentations on Avian Influenza and “Mercury Poisoning from Heavy Seafood Intake.”

> Presentations are scheduled for this month on Avian and Pandemic Flu, An Overview of Agromedicine, and “Taking an Occupational History.” All of these are in the Charleston area, so there is still room on the schedule for additional talks. Contact the office if your group or organization would like one, or if you would like our “Powerpoint” slides so that you can make the presentation yourself.

> AG-MED: The Rural Practitioner’s Guide to Agromedicine, 2nd Edition is available from the National Rural Health Association at: www.NRHA Rural.org/pubs

> Keep the Agromedicine Program in mind when you have questions about insect or occupationally related illness. We are happy to do literature searches for you and will do our best to answer specific questions that you have.

RECENT CONSULTS

> Dr. Stan Schuman, Emeritus Professor of Family Medicine and founder of the Agromedicine Program is always on the lookout for cases from his now one year old home in Clemson. He sends this report:

A middle-aged part-time gardener plucking errant plants from her flower-bed, found many annoying seedlings (thought to be sweet gum “tree-lets”) needing removal from the mulch provided by the landscaper to the new homeowner. Easily plucked, but numerous, the lady would pull a

few every time she walked her dog. After several days, she noted a tiny row of itching blisters along the base of her right thumb and applied “Caladryl” lotion. The following day she kept one of her regular appointments with her masseuse (for relief of low back pain). The masseuse used her usual regimen of slightly scented (lavender) oils for the entire body massage. The next day itching spread over most of the left side of the body (where the masseuse began the massage) and the right wrist and forearm. Two days later, after a sleepless night due to itching, she went to an urgent care facility and was treated with a burst of prednisone for contact dermatitis, which gradually relieved her symptoms.

Dr. Schuman’s questions to me: a) how to tell 3-leafed sweet gum seedlings from 3-leafed poison ivy? I wasn’t able to find a photo of a sweet gum seedling, but did find box elder seedlings that are easily mistaken for poison ivy. The difference? Opposite leaf

arrangement on the box elder versus alternate placement on poison ivy (you have to look closely)!— and the shinier, more notched leaf of poison ivy.



Box Elder seedling



Poison Ivy

- b) why spreading dermatitis? More than likely the urushiol was on the patient's hands or other fomites (clothing, etc) and spread it to the other areas of skin, they just developed later.
- c) did lavender oil aggravate the dermatitis? Possibly, but the massage may have simply spread the urushiol if an episode of "picking" the plants had occurred prior to the massage. Urushiol binds to the skin in approximately 30 minutes, but may be spread for days if it

is not washed off. The sooner the toxin is washed off, the less reaction is likely to occur.

Ivy-Block® a 5% solution of bentoquatam absorbs urushiol, but must be applied before exposure and reapplied frequently (every 4 hours or so).

Zanfel® a soap mixture of surfactants has been shown in several studies to decrease symptoms after exposure. It apparently binds to the urushiol in the tissue and complexes with it to allow it to be at least partially removed.

How to get rid of the seedlings? Vinyl (polyvinyl chloride) over cotton gloves are safest for a sensitive person to use. Remembering that the gloves themselves become means of transferring the urushiol, if not cleaned thoroughly after use. Better still, get someone who is not sensitive to do the removal!

FROM THE LITERATURE

>Speaking of sweet gum, shikimic acid (a raw ingredient for the production of oseltamivir—treatment for flu, particularly avian influenza) has been extracted from the seeds of sweet gum trees. Canadian researchers have also extracted it from the needles of pine, fir and spruce trees.

>More Good News from the Agricultural Health Study (AHS)
Shannon Lynch et al evaluated cancer incidence in

cyanazine-exposed pesticide applicators among the more than 57,000 licensed pesticide applicators in the AHS. Almost 21,000 applicators had used cyanazine. No clear, consistent associations between cyanazine exposure and any cancer analyzed were found. The small numbers of female applicators and certain cancer types limit the conclusions with regard to ovarian, breast, and some other cancers.

-LynchSM, Rusiecki JA, Blair A et al. Cancer Incidence among Pesticide Applicators Exposed to Cyanazine in the Agricultural Health Study. Environ Health Perspect 2006;114:1248-52

RESPONSE

Dr. Robert Anderson, long-time friend of the Agromedicine Program and lead occupational physician at Mead-Westvaco, Charleston, wrote in response to Dr. Frithsen's column on "Ethanol as a Renewable Fuel":

"The rest of the story on ethanol is that it is produced much more cheaply in Brazil from sugar cane, the (U.S.) farming lobby has apparently convinced congress to prohibit importing it from that source. I've read that it costs \$4+ per gallon from corn, but half that from sugar cane. So congress mandates the inclusion in our fuels of a product which costs more than oil, further increasing the price at the pump! What ever happened to "free market" capitalism?"