

# AGROMEDICINE PROGRAM UPDATE

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## PROGRAM NOTES

- Dr. Ivar Frithsen's (our faculty development fellow) father died suddenly at the end of February. Our deepest sympathy is extended to Ivar and his entire family.
- Presentations on **Avian Influenza** were made to the 47<sup>th</sup> Annual South Carolina Pest Management Professionals School in Columbia and the Darlington Kiwanis Club. More presentations on this topic are scheduled for March through June to veterinarians and vet tech students, physicians and lay audiences. Contact the office if you would like a presentation in your area.
- Revisions to the AGMED Rural Practitioners Guide to Agromedicine have been completed and submitted to the National Rural Health Association. Five new topics are under

development (avian influenza, agroterrorism, cold-related injuries, mold/mildew, and delusory parasitosis) and will be completed in the next 4-6 weeks. The second edition will be "e-published" and should be available by June of this year.

## RECENT CONSULTS

>Consults over the last month have included concerns about health effects of mold in indoor environments, exposure to algacides and other pesticides, and exposure to "parasites" in soil and other insects in the home environment. At least one of these cases may be a developing delusory parasitosis case (the third recognized already this year).

>A 24 year old new employee at an experiment station in an adjoining state was found to have a borderline low serum acetylcholinesterase level with a normal red cell acetylcholinesterase level.

We were consulted regarding our approach to a patient of this type. By report, he had not been using OP or carbamate insecticides in the past several months. He had not had previous cholinesterase levels drawn. He has had no symptoms to suggest toxicity from OP or carbamate exposure (no "all faucets on").

Serum cholinesterase has a half life of 8 days, RBC cholinesterase ~3months. Since the patient has not had symptoms and has no recent recognized exposure, his borderline low cholinesterase level probably represents his "normal." A prudent course would be to recheck the level in 4-6 weeks. If it remains within 5% of his original level, this is probably his "baseline." Further measurements of his serum AChE should be compared to this baseline, rather than the "normal range."

A 20% change from his baseline suggests possible significant exposure and should be followed up with repeat testing in a month, in the absence of symptoms, sooner if there is concern about acute exposure.

## **FARMERS AND KATRINA**

> In the wake of Hurricane Katrina, news reports of devastation to populated areas and human suffering have been widespread. Media stories related to economic losses have focused largely on the oil and shipping industries, but agricultural and forestry sectors have suffered devastating losses as well. Damage assessments have been reported by various state and federal agencies which began investigating losses shortly after the storm. These estimates are limited by several factors including the fact that state and federal resources were utilized for emergency cleanup efforts. Also, many of the areas affected most were difficult to access and communication with these areas remained limited for some time. Finally, true costs associated with some aspects of storm damage cannot be accurately assessed until after rebuilding occurs.

Two states that were largely affected by Katrina, Mississippi and Louisiana have published agricultural impact assessments. In the state of Mississippi total agricultural and forestry losses were estimated at \$1.5 billion. Louisiana reported total economic impact of agricultural and forestry losses at over \$1 billion. For crops such as rice, cotton, soybeans and corn; yield loss, quality degradation and increased harvesting costs were major contributors to

the economic impact. Livestock industries suffered losses largely due to destruction of facilities and lost production. Christmas tree farms, horticultural crops and aquaculture resources were also damaged.

Forestry losses were mainly related to damaged timber with some large blown down areas. Some damaged timber may be recovered in salvage operations, but increased production costs and decreased quality will lead to incomplete recovery of these resources. In addition to economic losses, other problems could result from large areas of dead and damaged trees. These problems include the potential for large forest fires, insect infestation and establishment of non-native invasive species. In summary, Hurricane Katrina caused extensive damage affecting the agricultural sector in the gulf region and beyond.

Guidry, K.M. Assessment of Damage to Louisiana Agricultural, Forestry and Fisheries Sectors by Hurricane Katrina. Louisiana State University Ag Center. Online at [www.lsuagcenter.com](http://www.lsuagcenter.com), accessed 2/16/06.

Herndon, C.W. Impact of Hurricane Katrina on Mississippi Agriculture. Mississippi State University Extension Service. Online at <http://msucares.com/>, accessed 2/16/06.

Sheikh, P. The Impact of Hurricane Katrina on Biological Resources. Congressional Research Service, Library of Congress. Online at [http://opencrs.cdt.org/rpts/R\\_L33117\\_20051018.pdf](http://opencrs.cdt.org/rpts/R_L33117_20051018.pdf) accessed 2/16/06.

The South Carolina Farm Bureau has information on their website about donating to farm families affected by Hurricane Katrina. <http://www.scfb.org>

The Farmers Legal Action Group website includes many links on resources for farmers affected by Katrina. Farmer's Guide to Disaster Assistance is a book available for download or print copies can be ordered from this website. This would be a good resource for any farmer to have on hand. <http://www.flaginc.org/disaster/disaster.htm>

The following website has information about sustainable agriculture, also an extensive section relating to Hurricane relief. There are many links including information for farmers and organizations accepting donations to help affected farmers. <http://www.attra.org/hurricane.html>

This website includes pictures of Katrina damage to farms. <http://www.msfb.com/news/frontpagesto-ries/katrina%20gallery.html>