

Inside Agromedicine

Partners for Health & Safety in Agriculture, Forestry, and Fisheries

NORTH CAROLINA AGROMEDICINE INSTITUTE • SUMMER 2010

From the
Chair, Board of
Directors, NC
Agromedicine
Institute



Deirdre Mageean, PhD

Dear Partners:

Michael Rosmann, an agricultural psychologist with Agriwellness in Iowa, is often heard to say that 'farmers in different countries are more alike than farmers and non-farmers in the same country.' This is true not only for farmers but also for all those who work in agricultural safety and health, as was evidenced at the recent National Institute for Farm Safety (NIFS) Conference.

As participants gathered from across the United States, Canada, Scandinavia, and American Samoa, the buzz was all about strategies for improving the health and safety of individuals working and living on farms. The usual rivalries between institutions of higher learning were set aside and the lines often drawn between government agencies, universities, agribusiness, commodity associations, and farmers could not be detected. The diversity of our state's agriculture commodities and workforce blends to yield the images we know as 'NC agriculture.' In the same way, the diversity of professionals from around the world blends to yield the exceptionally positive images of the NIFS organization and the oneness of its membership.

On behalf of the Institute's Board of Directors, I would like to extend our sincere appreciation to all the people and organizations who worked to make the 2010 NIFS conference a success. As with all of its activities, the Institute's success in this endeavor would not have been possible without the strength and depth of its many partnerships. We look forward to our continued collaboration as we strive to make agriculture as safe and healthy as possible across North Carolina and beyond.

Institute Hosts Successful NIFS Conference

The NC Agromedicine Institute, NC Cooperative Extension and NC Farm Bureau, in collaboration with Iowa's Center for Agricultural Safety and Health and the NC State University NC Agricultural Foundation, hosted the National Institute for Farm Safety's (NIFS) Annual Conference in Wilmington, NC on June 27 – July 1, 2010. The theme was Diverse Production, Common Hazards: Waves of Safety in Forestry, Farming, and Fishing.

Plenary sessions gave attendees a glimpse of the rich diversity of people and agriculture in North Carolina with farmers, safety professionals, commodity leaders, and researchers representing livestock and crop production, logging, and fishing sharing their perspectives on safety and health. This panel was especially well-received because it gave office-bound professionals the opportunity to interact with the people on the ground. Two plenaries highlighted the North Carolina - Iowa agricultural health and safety connection. Certified Safe Farm and AgriSafe representatives from national, state and local levels shared the impact this comprehensive program is having at the grassroots level. Finally, Dr. Michael Alavanja of the National Cancer Institute and Drs. Jane Hoppin and Freya Kamel of the National Institute of Environmental Health Sciences presented highlights of the latest scientific findings from the long-term Agricultural Health Study being conducted in Iowa and North Carolina. The AgrAbility Program and Kentucky's Economics of Preventing Agricultural Injury Program were also highlighted with panel presentations.

Afternoon thunderstorms didn't dampen spirits as Sunday evening's dinner was moved inside the Hilton Wilmington Riverside, rather than



NIFS attendees on the riverwalk in historic Wilmington, NC with Battleship North Carolina in background.

Certified Safe Farm/AgriSafe panelists: Robin Tutor, Kelley Donbam, Natalie Roy, Julia Storm, Bryant Spivey, Barbara Gallagher (not pictured) and Moderator Ronald Hawkins.



served on the fantail deck of the Battleship North Carolina. Breaks in the clouds still allowed attendees to ferry across the Cape Fear River to tour the battleship.

Attendees came from 34 states, American Samoa, Washington DC, Norway, Sweden, and Canada. There were 151 attending the full conference, with seven additional arriving on Thursday for the professional improvement session, "Protecting Farm Families: Hearing, Respiratory, and Pesticide Issues."

Contributed presentations and posters on Monday and Wednesday covered a wide range of subjects, such as assistive technology, aquaculture hazards, pesticide exposure, and respiratory health. There were a total of 75 health and safety presentations.

Tuesday morning, attendees boarded buses for the beautifully-orchestrated farm tour organized by Ronald Hawkins and the safety team of NC Farm Bureau. The tour showcased some of the diversity of North Carolina's

agriculture, and included visits to Lewis Nursery and Farms blueberry production and packing house, Warren Farms multi-commodity farming operation with tobacco, sweet potato, cotton, corn, cattle and hog operations, and House of Raeford poultry and feed handling operations. Lunch was a feast of NC barbecue served at the Duplin County Cooperative Extension facility. Several NIFS members commented that the farm tour was the best they had attended at any NIFS conference.

Wednesday evening's banquet wrapped up the formal conference as President Bernard Geschke handed over the leadership of NIFS to incoming President Mike DeSpain. The meal was delicious and the formal remarks entertaining, leaving ample time for the real event of the evening, which was the auction. Words cannot do justice to the many generous people who enjoy having fun while they give.

(continued on page 2)

Institute Hosts Successful NIFS Conference

(continued from page 1)

Hosting the event was a committee composed of Robin Tutor, Chair, Julia Storm, Co-Chair, Ronald Hawkins, Co-Chair, Kelley Donham, Bernard Geschke, Nancy Hetzel, Tom Karsky, Marylee Lannan, Gary Roberson, Chris Wessel, Christie Young, Jimo Ibrahim, John Paul Owens, and JJ Lemire.

Next year's conference will be held in collaboration with NIOSH in Boise, Idaho the last week in June, while the 2012 conference will be in Vermont.



Ronald Hawkins and Cal Lewis introduce the blueberry packing operation.



Farm tour includes blueberry harvest.



NIFS attendees wonder 'what is that cotton pickin' thing?' during Warren Farms tour.



Workers in the Lewis packing plant.



NIFS members consider a name change and new logo for the organization.



Farmers, Foresters, and Fishers panel share their stories.

SPECIAL THANKS TO CONFERENCE SPONSORS

D I A M O N D: American Farm Bureau Federation, Farm Credit, North Carolina Farm Bureau Mutual Insurance Company

P L A T I N U M: CHS Foundation, Southern Farm Bureau Life Insurance, Virginia Farm Bureau

S I L V E R: North Carolina Pork Council

B R O N Z E: Loudon Mutual Insurance

Other Contributors: Doug Lee Farms, NC Cotton Producers Association, NC Direct Distributors (dba AgriSupply), NC Egg Association, NC Peanut Growers Association, NC Pork Council, NC Soybean Producers Association, NC Wine and Grape Council, Duplin Winery

SAVE THE DATE...February 21-25, 2011

Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals • Greenville, NC



Continuing education credit pending; graduate credit available

Michele Proctor Develops WPS Self-Assessment Tool

[Industrial Engineering Master's student at NCSU]

As an intern for the North Carolina Farmworker Health Program, my mission was to study and learn the Worker Protection Standard, and develop a self-assessment tool that would allow agricultural owners and workers to determine their WPS classification and corresponding requirements via a web-based questionnaire- and I had 30 days to do it. As the daughter of a dairy and poultry farmer who prefers TV over literature and usually considers labeling and instructions as suggestions, I had to ask myself: "What would someone like my Dad use?" I knew it had to be quick, convenient, and painless.

Chip Bristow, Inspector 2 with the NCDA & CS Pesticide Section, and Robin Tutor with the NC Agromedicine Institute helped me in identifying common problems, complaints, and exceptions to the rule, as well as provided feedback in my development process. From my study of the WPS, I identified a series of 'qualifying factors,' elements that qualified or exempted a candidate from WPS regulations, and then developed a sequence of questions to be answered by the user. Upon completion of the questionnaire, the assessment tool would then generate a printable summary and reference page based on the user's answers. The summary page would outline WPS requirements unique to that specific user's WPS classification. For owners, the summary references specific sections of the EPA's "WPS: How to Comply Manual" they would be responsible for understanding. For workers, the summary outlines their WPS rights and basic provisions provided by the WPS based on their designated agricultural operation. The reference page is customized as well, providing links, addresses, and phone numbers for information sources, vendors that supply WPS safety equipment and signage, educational information, worker training programs, and other relevant services provided by state-wide programs. The reference page is also printable for a quick, convenient resource for all compliance questions or needs. In the event that a web-based format is inaccessible to a user, I have proposed that NC Cooperative Extension Services could provide support and web access to complete the questionnaire. I completed my 30 day package by generating four example scenarios of the questionnaire based on common WPS situations, as well as a phasing plan for implementation of the WPS self-assessment tool.



With Phase 1 complete, the next phases of the tool's development require testing and critique from user groups including WPS owners and workers, pesticide inspectors, and pesticide education experts in order to prepare for a successful web launch. The final phase of the project calls for the inclusion of other regulatory programs, such as OSHA's HazComm section and USDA Record Keeping Regulations, that parallel or overlap the WPS requirements in order to consolidate information and eliminate redundancies created by the requirements of multiple programs. Hopefully, this method of consolidation and summary will make compliance easier, improve compliance rates, and reduce the number of pesticide related injuries or fatalities, and thus the greatest success of the project. My internship helped improve my understanding of requirements of agricultural pesticide users, as well as provided me the opportunity to see and be a part of our state efforts to improve pesticide education through the design and development of the WPS Self-Assessment Tool.

Risk Mitigation Project to Help Farmers with Soil Fumigant Rules

The NC Agromedicine Institute received a \$184,542 grant from the North Carolina Tobacco Trust Fund Commission. Monies awarded to the Institute will fund its Risk Mitigation Measures (RMMs) project that began in May.

The RMMs project aims to educate farmers across the state of North Carolina about new requirements for use of soil fumigants. The new requirements are the result of fumigant re-registration eligibility decisions (REDs) from the U.S. Environmental Protection Agency. The measures are designed to address risks associated with fumigants and protect applicators, handlers, workers and bystanders from the potential risks of exposure to soil fumigants.

Under new requirements beginning December 1, 2010, fumigant handlers must either stop work and leave the area or use air purifying respirators if they experience sensory irritation (formulations with greater than 80% methyl bromide will require handlers wear air purifying respirators during handling activities).

All handlers who will wear a respirator must be fit-tested, trained, and medically examined to ensure they do not have health problems such as a heart condition that could make use of a respirator dangerous. Growers will also need to develop a Fumigant Management Plan and fulfill requirements for record keeping, posting, notification, and emergency response.

The goal of the RMMs project is to aide more than 1300 farms across the state in implementing the new requirements. Strategies to accomplish the goal include identifying and developing media resources and conducting 25 interactive workshops across the state between May 2010 and April 2012. Workshops will target farm operators, fumigant applicators, fumigant handlers and provide training on RMMs including the development of a Fumigant Management Plan, management of buffer zones, and dissemination of materials needed for record keeping, posting, notification, and emergency response.

Expertise for the project will be provided by

a multidisciplinary Soil Fumigant Workgroup that will ensure all commodities using fumigants are represented, that farm needs and barriers to compliance are reduced, such as language barriers and financial constraints. Those contributing to the project include the NC Strawberry Association, the NC Agromedicine Institute, NC State University –Departments of Plant Pathology and Horticulture, NC Department of Health and Human Services-Office of Rural Health and Community Cares- NC Farmworker Health Program, NC Department of Health and Human Services-Division of Public Health- Occupational and Environmental Epidemiology Branch, and the EI Group (www.ei1.com), a private occupational health agency and representatives of the chemical industry.

For more information on the RMMs project, please contact Robin Tutor at 252.744.1045 or tutorr@ecu.edu.

Agromedicine Interns Gain Practical Experience from Summer Projects

MATT THOMPSON

I am a graduate assistant with the North Carolina Agromedicine Institute at East Carolina University. I am 25 years old and from Wilson, North Carolina.

I studied Psychology and Biological Science as an undergraduate at North Carolina State University. Following my graduation from N.C. State, I enrolled at East Carolina University. I am currently a second year Master of Public Health student.

This summer I was able to work with ECU researchers examining the rate of health and boat insurance along with the perception of risk among North Carolina commercial fishermen.

After graduating I plan to use the knowledge acquired through the Master of Public Health Program and experience from the North Carolina Agromedicine Institute to continue a career in Public Health. I am interested in analysis and management and helping people through the overall improvement of the delivery of health care.



NADYA MAJETTE

I am a graduate assistant at the N.C. Agromedicine Institute at East Carolina University. I am 24 years old and from Ahoskie, North Carolina.

I am currently working towards a Master's degree in Public Health with a concentration in data analysis and management.

At the Institute I am working on a project aimed at understanding public health factors associated with residence near concentrated animal feeding operations (CAFOs). After leaving ECU I plan to attain a doctoral degree in the field of Public Health concentrating in Environmental Health or Community Health because I believe that gaining further knowledge that can prevent public health problems before they occur will enable me to attain substantial job satisfaction knowing that I am making the world a better place.



CLIFF NELSON

I am a research assistant at the N.C. Agromedicine Institute. I am 51 years old and am from Greenville, North Carolina. I have a Bachelor's of Arts in English from East Carolina, and a Masters in journalism from UNC Chapel Hill. I am currently enrolled in the doctorate program for Technical and Professional Discourse of the department of English at East Carolina.

At the Institute I concentrate on data management and studies of farm-related fatalities in North Carolina.

Upon completing my degree at East Carolina, I plan to secure a tenure-track faculty position, preferably at a research university, where I can teach and continue to study message design and the dissemination of official public warnings, in the context of changing, digital communications media.



CECILIA LINDSAY

I am a public relations intern at the North Carolina Agromedicine Institute at East Carolina University. I am 21 years and from High Point North Carolina.

I am currently a senior in the Communications program, concentrating in Public Relations with a minor in Apparel Merchandising: Distribution Technology.

The main project I am working on for the Institute is branding and marketing the Institute.

My job is to come up with a uniform layout to be used on posters, flyers, handouts and so on that the public can recognize them as coming from the Institute. Just as people recognize the golden arches for McDonald's, we want the public to see our logo, colors and layout and immediately associate them with the the North Carolina Agromedicine Institute

Upon graduating from ECU I plan to pursue a career in athletics. I would enjoy doing public relations for a major league baseball or professional football team.



Students Take The Lead On Agromedicine Projects with Institute Partners

Catherine LePrevost, [PhD Candidate in Science Education at NC State University and Project Coordinator in the Department of Environmental and Molecular Toxicology]

After nearly three years of engaging community partners and field testing educational materials with farmworkers and trainers, I—along with NC State collaborators Julia Storm and Greg Cope and University of Florida collaborator Cesar Asuaje—introduced the Pesticides and Farmworker Health Toolkit to pesticide educators in North Carolina. The Pesticides and Farmworker Health Toolkit presents crop-specific pesticide safety information for Latino farmworkers in highly visual and engaging ways to meet the current educational needs of the target population. The toolkit consists of training flipcharts containing discussion guides for trainers, crop-specific pesticide information handouts for farmworkers, and hands-on activities to assess farmworker knowledge and skills. All materials are available in Spanish and English. The US Environmental Protection Agency has approved the toolkit for worker training as required by the Worker Protection Standard.



Catherine LePrevost Launches Pesticides and Farmworker Health Toolkit

On June 9, 2010, twenty-five individuals participated in a train-the-trainer workshop for the Pesticides and Farmworker Health Toolkit at the Toxicology Building on the NC State campus. Participants represented a variety of organizations, including migrant and community health centers, an agricultural supply company, NC Department of Labor, NC Department of Agriculture and Consumer Services, Migrant Education Program, NC Cooperative Extension, and NC Agromedicine Institute. During the workshop, veteran trainers Beth Rodman and Johana Furr of the Agricultural Safety and Health Bureau of the NC Department of Labor modeled training using the toolkit for tobacco, and participants worked in small groups to practice delivering the toolkit training. Workshop participants received toolkits for sweetpotatoes, tobacco, and tomatoes.

The launch of the Pesticides and Farmworker Health Toolkit at the train-the-trainer workshop marked a major milestone in this multi-year development project. Feedback from workshop participants underscores the utility and user-friendly nature of the toolkit: “[the toolkit is] very useful for my program;” “[it is] a great training tool for everyone, regardless of amount of prior experience delivering trainings;” and “[the training is] very useful for farmworkers who are being exposed to pesticides.” Educational materials for cucumbers, green peppers, grapes, landscape, Christmas trees, blueberries, strawberries, and apples will be available for the 2011 growing season and will be accessible through a project website.



Amber Foreman Helps Establish Migrant Outreach Program

[MPH Graduate Student, ECU]

Migrant and seasonal farmworker constitute the backbone of much of the hired farm labor in our state. This transient, often invisible population makes valuable contributions to our state economy. MSFW's

have several obstacles to overcome including, but not limited to: low literacy levels, limited language proficiency, unfamiliarity with the United States healthcare system, and separation from their loved ones. Through several internship programs and an extensive network of service providers, the North Carolina Farmworker Health Program seeks to improve the health of MSFW's and their families throughout the state.

This summer I interned with the Rural Health Group at Henderson as an Enabling Outreach Volunteer. I was given the unique opportunity to help establish the Migrant Outreach Program in this new location. The Migrant Outreach Coordinator, Jorge Miranda, his assistant Dora Contreras, and

I visited the migrant camps to perform health assessments, provide informal charlas to the workers about Heat Stress, Pesticide Exposure, etc., marketed the new location of the program, and dealt with administrative and procedural changes necessary to get the program off the ground. I attended several training workshops and really focused a lot of my time and effort making the health care staff sensitive to the diverse cultural and occupational needs of the farmworkers.

Although my internship officially ended in July, I am still working on a collaboration with the HIV/AIDS Outreach Team, nursing staff, and Migrant Outreach Team to implement HIV Testing for the MSFWs. At the end of the growing season we hope to provide HIV testing clinics coupled with informal HIV education presentations. I have heard it said over and over again this summer that outreach workers are the bridge that connect their target population with health care services. Upon reflection, I can think of no more fitting characterization.



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CALENDAR

November 11, 2010 Evaluating the Health Effects to Local Communities of Confined Animal Feeding Operations (CAFOs) Raleigh, NC <http://continuingeducation.ncsu.edu/cafos.html>

November 30-December 1, 2010 Southeast Vegetable and Fruit Expo*, Myrtle Beach, South Carolina <http://www.ncvga.com/documents/2010FinalProgram.pdf> or contact Cathy Price, Convention & Event Coordinator Ph: 919-334-0099, Mobile: 919-413-9544, cathyprice09@yahoo.com

December 7, 2010 Crop Protection School and Annual Meeting of the Crop Protection Association of North Carolina*, Raleigh, North Carolina Register On-line ContinuingEducation.ncsu.edu or call 919.515.2261.

January 6-7, 2011 Agricultural Safety and Health Council of America: Practical Safety and Health Risk Management in Production Agriculture, Atlanta, Georgia www.ashca.com or contact ASHCA at 715-221-7270, or ashca@mcrf.mfldclin.edu.

January 8-10, 2011 AgConnect Expo, Atlanta, Georgia <http://www.agconnect.com/>

January 12-14, 2011 22ND Annual Joint Conference NC Cotton Producers, Corn, Small Grain & Soybean Associations, New Bern, North Carolina. <http://ncgrainsconference.org/documents/2011ExhibitorPacket.pdf> or contact Cathy Price, Convention & Event Coordinator, Ph: 919-334-0099, Mobile: 919-413-9544, cathyprice09@yahoo.com

February 2-February 4, 2011 Southern Farm Show, NC State Fairgrounds, Raleigh, North Carolina <http://www.southernshows.com/sfs/>. Look for NC Agromedicine booths inside the Graham Building and outside on the midway.

* Medical clearance and respirator fit testing available; pre-registration required. For more information contact Robin Tutor tutor@ecu.edu or 252.744.1045 or Barb Gallagher bgallagher@commwellhealth.org or 910.567.7159



Special thanks to AgriSupply for enhancing the NCAI logo.

NC Agromedicine Institute

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