Farmer DIY Training: Right Respirator, Right Fit

Selecting the right respirator, and making sure respirators fit by completing an annual qualitative respirator fit test, are key features of new risk mitigation measures (RMM) for soil fumigants from the US Environmental Protection Agency (EPA). More importantly, as Gus Manning, Ph.D., CIH, chair of the American Industrial Hygiene Association (AIHA) Respiratory Protection Committee says: “If a respirator doesn’t fit, it doesn’t work.”

The Agromedicine Institute is continuing its work to assist farmers across NC with implementation of the new EPA rules through the Risk Mitigation Measures II Project. Qualitative fit testing ensures that respirator cartridges are functioning properly and that the face piece seal is air tight.

For farmers who want to “DIY” (Do-It-Yourself), the series of qualitative fit test training workshops offered through this project is a perfect opportunity. Farmers who complete a training program to learn the “how to” of respirator fit tests may conduct their own annual tests. This way, farmers don’t have to pay an industrial hygiene expert for this service, and farmers become more comfortable and skilled with proper respirator use.

Train-the-fit-tester workshops, the first of many to be offered throughout the state, are now underway for farmers, Cooperative Extension agents, and others. Trainings were held February 27 in Wilson County, March 6 in Johnston County, and March 22 in Jackson County. The four-hour training provides key skills in selecting respirators, conducting qualitative fit tests, and record keeping. Additional workshops will be listed on the Institute web calendar at: www.ncagromedicine.org.

Institute Interim Director Robin Tutor, AgriSafe Nurse Coordinator Barb Gallagher, and EI Group Industrial Hygienist George Elderbaum are leading the training. Farmers receive a cost share benefit to offset the Fit Test Training Registration Fee of $150, making the fee only $75 for farmers. Those who have
Equipment Lifts Yield Access, Independence to NC Farmers

Mobility and access are two aspects of farming that many farmers may not identify as critical needs until they are forced to face life without them. Many farmers with disabilities, caused by injury or aging, struggle daily just to get around their farm or access the cabs of their farming equipment.

With the help of the North Carolina AgrAbility Partnership (NC AgrAbility), two eastern NC farmers have built their own electric lifts to enable them to access their equipment easier and safer. While NC AgrAbility cannot provide drawings or direct engineering counsel, the project can provide farmers with an information packet of photos of similar designs from all over the country, and articles related to safety and design concerns in building your own lift.

These NC farmers took this information to their local fabricators and designed their own lifts to fit their needs and equipment. There are only a few vendors nationwide that commercially sell this type of assistive technology for farmers; those that are available are often expensive.

As most farmers will tell you, with the right design and safety considerations, a do-it-yourself build can often save money and boost the local economy. NC AgrAbility helps farmers weigh their options and consider all aspects of their personal safety in implementing a new assistive device. NC AgrAbility is proud to have been a part of helping farmers like these regain a higher level of independence on their farms.

New & Small Farmers Gain Insights into Risk Management

While the Institute primarily focuses on human risks associated with farming, fishing, and forestry, there are also other risks including production, market, financial, and legal.

The Institute received funding from the United States Department of Agriculture (USDA) – Risk Management Agency to provide education on farm risks. Risks being addressed include production, financial, human health and safety. Partners in providing education are Clif Parker, retired USDA Assistant Deputy Administrator, and Custom Ag Solutions (CAS). Target audiences include women, veteran, minority, limited resource, small acreage and beginning farmers. Target commodities include fruits, vegetables, turf grass/sod, organic crops, honey, herbs, livestock, forage, floriculture and ornamental nursery.

To date, a series of eleven meetings have been held across the state in conjunction with Cooperative Extension, FFA, and commodity groups with five additional meetings being planned between now and June. Meeting topics include Adjusted Gross Revenue-Lite, the Common Crop Insurance Policy’s (COMBO) basic provisions, specialty crops or other insurance programs, marketing and farm management strategies, biological, pharmaceutical, and handling safety for cattlemen, personal protective equipment use to reduce pesticide exposure in contained animal feeding operations, prevention of heat-related illness and skin cancer, hearing conservation, respiratory protection, farm emergency planning, and ergonomics.

Interested in learning more about future meetings, reducing production, financial, or human risks associated with farming? Contact Tami Thompson thompsont@ecu.edu 252.744.1008 or Clif Parker crparker@yahoo.com 919.795.9591. Resources are also available at www.agromedicine.org or http://www.rma.usda.gov/
Dr. Catherine LePrevost, Dr. Greg Cope, and Ms. Julia Storm in Extension Toxicology at NC State University have been awarded pilot project funds from the University of Kentucky’s Southeast Center for Agricultural Health and Injury Prevention to examine the effectiveness of audience response systems (ARS, “clickers”) in enhancing pesticide applicator safety and health programs. The project includes the purchase of a complete set of ARS technology (hand-held response cards and receiver) for each of the five NC Cooperative Extension Districts. Twenty Cooperative Extension county pesticide education coordinators, representing all five districts, have been invited to participate in the pilot project through implementing ARS in their pesticide applicator recertification programs.

In February, two full-day workshops, led by Dr. LePrevost, were held in Raleigh for the participating pesticide education coordinators. In his humorous welcome to workshop participants Dr. Cope acknowledged that “raising your hand is the old-school method of audience response, but it doesn’t match the power of the new technology.” Participants received technical training in using ARS, learned best practices when teaching with the technology, and practiced creating and delivering ARS presentations in small groups. In the coming months, the pesticide education coordinators will collect data on their pesticide applicator audiences’ learning and receptiveness to the technology, as well as their own teaching practices.

Through this pilot project, the impact of ARS on pesticide applicators’ learning and the potential for statewide expansion of ARS implementation in pesticide applicator programs will be evaluated. In the long term, effective and engaging safety and health training will reduce pesticide exposure and illness among applicators and promote the safety and health of farmworkers, farm families, and the public.

Farmers Give High Marks to Certified Safe Farm and AgriSafe Pilot Project

Based on the highly successful AgriSafe and Certified Safe Farm Programs developed in Iowa, the AgriSafe Network of North Carolina and Certified Safe Farm (CSF) of North Carolina programs were implemented in three pilot counties in eastern NC, Duplin, Johnston, Sampson, with funding from the NC Tobacco Trust Fund Commission during 2009-2012. Project collaborators included NC State University, NC Cooperative Extension, NC Agromedicine Institute, and AgriSafe of CommWell Health. CSF and AgriSafe combine health and safety components that are proven to result in lower health claims costs and safer, healthier farmers.

During the pilot project, Extension agents completed on-farm safety reviews of 120 farms, while AgriSafe-NC provided comprehensive AgriSafe health screenings for 42% of participating farms. Thirty-eight farms received 50/50 cost-share assistance for health and safety improvements, averaging $3,000 per farm. Safety and health improvements included structural, electrical, hydraulics, tractor tires, equipment lighting and marking, fire extinguishers, chemical storage, machinery shielding, personal protective equipment such as respirators, and livestock and waste handling. AgriSafe-NC also provided 3800 health screenings in 47 counties, resulting in 500 health referrals for high blood pressure, diabetes, and other serious health conditions.

Asked about their experiences with the AgriSafe, CSF, and cost-share projects in an anonymous evaluation survey (53.8% response rate), 70% of farmers assessed the on-farm safety review and cost-share fund for safety improvements as “very important.” An exceptionally high percentage (95%) of respondents indicated they would recommend AgriSafe and Certified Safe Farm to friends or neighbors. A large majority of farmers (77%) indicated that they will continue to apply the lessons learned from the on-farm safety review in their daily work lives.

Planning for the state-wide expansion of AgriSafe-NC and Certified Safe Farm-NC programs is currently underway.
Inside the Kerr Scott Building, the NC Agromedicine Institute booth was buzzing with activity. Numerous attendees took advantage of free blood pressure & blood sugar checks, while many poultry farmers visited health providers for free respiratory health screenings.

Barb Gallagher, AgriSafe Network of NC Nurse Coordinator, and Robin Tutor-Marcom were on hand to answer Farm Show attendees’ questions about health and safety on the farm.

ECU MPH student Waled Kassabo (left) and faculty member Dr. Greg Kearney (right) worked with ECU pulmonologist Dr. Robert Shaw to provide health information and lung screenings to poultry farmers.

NC AgrAbility had a front row spot outside at the 2013 Southern Farm Show at the North Carolina State Fairgrounds January 30-February 1. Student projects from NC State University Biological & Agricultural Engineering (BAE) were on display, as well as the debut of the NC AgrAbility refurbished tractor lift, ergonomic tool kit, and the Garden Scoot, a device designed to assist with mobility for ground-level gardening jobs. The display was a success with lots of interest. Approximately 500 people stopped to view the equipment, tools and other information about farming with disabilities.

NC AgrAbility Coordinator Michele Proctor (center) and NCSU Bio & Ag Engineering (BAE) student Jermayne Smallwood (right) discuss the Garden Scoot with a Farm Show attendee.

NCSU BAE students Jermayne Smallwood (right) and Randall Godfrey (left) restored a tractor lift in time for the farm show. Under supervision of Dr. Gary Roberson and Michele Proctor, BAE students have the opportunity to serve as interns learning to design and customize equipment to meet farmers with disabilities’ needs.
New Look, Same Quality

With over a decade under their belt, Farm Safety 4 Just Kids is getting a makeover. The organization has maintained the same brand since it was founded in 1987. Agriculture, farm safety, and the organization have changed a lot in the past 25 years, so it’s only natural for the logo and branding to reflect those changes. The refreshed branding began January 1 and encompasses a new logo in blue and green, symbolizing rural safety. The new logo and color scheme will be used throughout the website and on resource materials.

Faculty Focus: NC A&T’s Dr. Jenora Waterman

Dr. Jenora Waterman is Assistant Professor in the Department of Animal Sciences in the School of Agriculture and Environmental Sciences at NC A&T State University and a Faculty Affiliate of the NC Agromedicine Institute. She joined A&T in 2008 following completion of post-doctoral training in the Department of Molecular Biomedical Sciences at the NCSU College of Veterinary Medicine. Dr. Waterman received her PhD in functional genomics at NCSU, a master’s degree in biology from A&T, and a bachelor’s degree in biology from Bennett College. Her research efforts are geared toward elucidating environmental and proteomic influences on the pathophysiology of respiratory diseases, particularly asthma and chronic bronchitis. Dr. Waterman and her laboratory team use comparative genomics/proteomics and reverse translational medicine approaches to study inflammation, oxidant stress and hyper-reactivity in the airways of laboratory and farm animals, and humans. Her lab employs model systems, including fully differentiated primary airway epithelial cells and cell lines (e.g., from mice, pigs and humans) that are maintained in a unique air-liquid interface culturing system. Cells grown in this manner are essentially identical to cells in the body with regard to structure and function. Dr. Waterman presented an overview of her research and its relationship to human respiratory disease in farm settings at the 2012 Agricultural Safety and Health Symposium at the NC Research Campus in Kannapolis.

SUPPORT THE INSTITUTE

The NCAI invites you to help further its mission through your contributions to the following funds:

NC Agromedicine Institute Fund (for current and ongoing activities): Make check payable to “East Carolina University Foundation” with memo designation “NC Agromedicine Institute.” Mail to NCAI, c/o Director, 1157 VOA Site C Road, Greenville, NC 27834. Make a secure online donation at https://onestop.ecu.edu/onlinegiving/ and select “Agromedicine Institute Fund” in the drop down menu.


Educational materials will now be available as FREE downloads. The PDFs are available on the website and will include options to download the entire education packet, individual sections, or a single lesson plan or activity. The process of converting to electronic resources will take time. Printed materials will be available until the supply is exhausted, however materials will not be reprinted in the future.

Visit www.farmsafetyforjustkids.org to see some exciting new changes!
AgriSafe Network of NC Hires Nurse Coordinator

Barbara Gallagher, RN joins the NC Agromedicine Institute staff at East Carolina University as the first Nurse Coordinator of the AgriSafe Network of North Carolina. Barb Gallagher served as AgriSafe Nurse with CommWell Health during 2009-2012. After an assignment in long term health care, Barb returns to AgriSafe to serve in this new statewide role. Her focus will be assisting with the expansion of AgriSafe to new sites throughout the state, providing technical assistance to health providers in the network, and providing direct services and technical assistance to farmers in areas of the state without a local AgriSafe provider. Barb will also provide AgriSafe outreach at commodity meetings, conferences, and Extension events. Welcome back, Barb!

Contact the AgriSafe Network of North Carolina:
Barbara Gallagher, RN, Nurse Coordinator
agrisafenc@ecu.edu • 1-855-247-4723 • 1-855-Agr-isaf

Tutor-Marcom Honored with Friend of Extension Award

Robin Tutor-Marcom was presented with the 2012 Friend of Extension award from North Carolina’s chapter of Epsilon Sigma Phi, the professional organization of Cooperative Extension, at the annual conference and awards luncheon on November 8, 2012 at the Lee County Extension Center. The Friend of Extension award recognizes a non-Extension person who has given outstanding public service and support to state Extension programs. Congratulations, Robin, on this well-deserved recognition!

IN THE COMPANY OF TRUCKS –BE SEEN, BE ALIVE AVAILABLE ON YOUTUBE

From NC Association of Professional Loggers-- www.ncloggers.com
This safety video for car and small truck drivers addresses highway safety for the motoring public sharing roads with forestry industry drivers hauling logs, wood chips, and lumber. This NC Association of Professional Loggers’ video illustrates safe driving practices around large trucks.
AgriSafe of the Albemarle Completes Successful Year

AgriSafe of the Albemarle registered nurse Meredith Umphlett of Albemarle Regional Health Services (ARHS) has completed a successful year of developing regional partnerships, conducting on-site health screenings, providing health referrals, conducting trainings, and visiting farms in Camden, Gates and Hertford counties. Partners include Hertford County Public Health Authority (HCPHA) and the North Carolina Agromedicine Institute. Funding for one year was provided by the Kate B. Reynolds Charitable Trust. Meredith focused on respiratory protection and farm safety at numerous Extension and agricultural community events. AgriSafe of the Albemarle is exploring funding opportunities to sustain the program.

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completed the training receive a complete qualitative fit test kit at special vendor pricing ($100), about 30% of the usual retail cost ($353).

The project will also offer six traditional fit test events and work with the Pesticides Section of NC Department of Agriculture & Consumer Services to develop training materials for Phase II Risk Mitigation Measures (RMM) training.

Another important aspect of respirator use in farming is awareness of health & wellness when using respiratory protection, especially during times of high heat and humidity. The project will complete development of the Fit-to-Farm program for farmers, focusing on the importance of attaining a healthy weight and blood pressure and understanding heat stress—all factors to safe respirator use.

The project is funded by the NC Tobacco Trust Fund Commission.

If you are interested in hosting a qualitative respirator fit test training or a respirator fit test event, please contact Barb Gallagher, RN by phone at 252.744.1008 or email at agrisafenc@ecu.edu. To learn more about Phase II RMM, visit EPA's soil fumigant toolbox at http://www.epa.gov/oppsrd1/reregistration/soil_fumigants/.

For up to date announcements, event information, photos and more. Please follow along!

facebook (http://www.facebook.com; search: NC Agromedicine Institute)

YouTube (http://www.youtube.com/user/ncagromedicine) twitter (http://twitter.com; search: NCAgomed)
CALENDAR


May 15. 12 noon – 2 pm. NC Agromedicine Institute Board of Partners Meeting. Raleigh. NCSU Campus. www.ncagromedicine.org.


MONTHLY AgriSafe Network Webinars. www.agrisafe.org/training/

For more, visit the NCAI calendar at www.ncagromedicine.org.

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