

# Inside Agromedicine

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

North Carolina Agromedicine Institute / Southern Coastal Agromedicine Center

Fall 2006 - Winter 2007

## Tractor Initiative Public Service Announcements Hit Home



From the Director:

Amidst news stories of the dangers of imported food products, I am amazed that we often forget the incredible ability of the American farmer, forester, and fisher to produce products that can feed, clothe and shelter us. North Carolina is the ninth largest state in terms of agricultural export value, estimated to be more than \$2 billion. Most who choose a life of working in agriculture do not make much money, take financial risks daily, and don't take the time to consider that their occupation is the second most dangerous one in the US, first in NC. Most are invisible to consumers and their work is romanticized or belittled. The NCAI and the SCAC are committed to addressing the safety and health of agricultural workers through supporting projects and programs to prevent injury and illness among members of the agricultural community and their families. We want everyone in our state to recognize the significant contribution agriculture makes in our national economy. Next time you drive by that beautiful field of corn, cotton, hay or sweet potatoes or watch the shrimp boats pull into port or visit the NC Cradle of Forestry or smell your fresh Christmas tree.... take a minute and thank an agricultural worker or producer. What would your life be like without them? What can you and your community do to help them do their work safely?

The Public Service Announcement (PSA) is called "The Sorrow Just Doesn't End" and its message is somber: (mother's voice) "... we saw our son killed when he was just 16. The tractor flipped upside down. Our boy died under the tractor before we could get to him... We wish we'd known that a ROPS and seat belt could have saved his life."

ROPS, short for rollover protective system, is a roll bar or reinforced tractor cab and seatbelt system. It is designed to save lives by holding the tractor driver inside a protective zone in rollovers. Since 1985, tractors have been manufactured with ROPS, but many older tractors without them are still commonly used.

The mother's tragic story was one of 12 tractor safety messages that North Carolina Agromedicine Institute and Southern Coastal Agromedicine Center researchers tested at four focus groups across the state last fall.

Reactions among participants were mixed. "In the Blink of an Eye", a PSA counting down the seconds for a tractor driver to react to an overturn drew mixed reviews. "That one really grabbed my attention," said one farmer. "It was too confusing; I didn't like it," said another.

Focus group participants included farmers, family members, farm equipment dealers and others from Western North Carolina who gathered at the Ashe County Cooperative Extension Center to share views as well as Robeson County farmers who took time out from the county agricultural fair to talk with researchers. Other focus groups convened Gold Star Growers from

Eastern North Carolina's Pasquotank and Pitt Counties. Cooperative Extension and the NC Department of Labor's Agricultural Health and Safety Bureau helped gain participation from farmers.

Luke Ertle, group facilitator and East Carolina University Master of Public Health student, coaxed reactions from participants. He expertly probed for more when the room fell silent but facial expressions hinted there was more below the surface.

Many PSAs invoked memories of friends and neighbors lost to similar tragedies.

"That hit home," said one young farmer. A farm wife shared: "The one about the boy was over the top -- just too much." The problem of tragic farm fatalities isn't new. And that's the problem.

Safety programs and ROPS retrofit incentives have helped, but too many deaths and serious injuries are devastating farm families all over the United States. In fact, Dr. Kristen Borré, Director of the NC Agromedicine Institute and Southern Coastal Agromedicine Center, says "Data for 2000 to 2004 from a recent Institute study indicate that tractor deaths are increasing in North Carolina."

Those facts have researchers scratching their heads, asking: "What would encourage farmers to install ROPS on their tractors and influence family members and employees to use the seat belt?"

The focus group project is part of the National Tractor Safety Initiative, supported

continued on page 2

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## Calendar

**September 10 - 12, 2007:** SERA-19 Rural Health: Global Learning, Local Action - Atlanta, GA. Register online: <http://srdc.msstate.edu/sera19/sep07/meeting.htm>; Hotel: Hilton Atlanta Airport (Group Name: Mississippi State University), 404.767.9000; reservation deadline August 20, 2007.

**October 18 - 20, 2007:** 20<sup>th</sup> Annual East Coast Migrant Stream Forum - Royal Plaza in Lake Buena Vista, Florida  
<http://www.ncchca.org>

**November 14 - 16, 2007:** North American Agromedicine Consortium (NAAC) and Midwest Rural Agricultural Safety and Health (MRASH) Conference - Omaha, Nebraska

## Acute Pesticide Illness and Injury Surveillance

Your help is needed. The North Carolina Division of Public Health, Occupational and Environmental Epidemiology Branch, wants to learn more about how pesticides affect our workers and citizens in North Carolina. By reporting pesticide-related health complaints, you can help us protect the health of North Carolinians.

A new N.C. mandatory reporting law requires doctors, physician assistants, and nurse practitioners to report suspected or confirmed cases of acute pesticide-related illness and injury to Public Health as part of the new Acute Pesticide Illness and Injury Surveillance Program. Nurses and other support staff, under direction of the treating provider, can also report.

Reporting is easy. Call the state poison control center, 24/7, at 1.800.222.1222 and pick option 5. No paperwork is involved. Poison control specialists have been trained to ask questions that will fulfill reporting requirements. Advice regarding recognition and treatment of pesticide illness is also available from staff at the poison center. The other option is to fax or call in a report to Public Health. Individual patient information is confidential; Public Health does not release patient names without their consent. Only aggregate information, without identities, is shared with the public

and outside agencies.

Reporting is important and will improve patient care. Public Health is studying this issue because pesticide use is widespread and improper use can result in mild to severe health effects. Children, farmworkers, and farmworker families are especially at risk. Reporting ensures that incidents are recorded and the information collected is used to direct prevention efforts. When Public Health learns about a patient, that person is offered advice and resources. Investigations are conducted to identify factors contributing to hazardous exposures. Information is then analyzed and recommendations about safe handling practices are made. Findings will be shared with stakeholders who train farmworkers, train pesticide applicators, provide care, enforce pesticide laws, form state policy, and conduct research on state and federal levels.

Reporting starts with recognition and management of pesticide-related illness, and this can be challenging. Eastern Area Health Education Center (EAHEC) offers an on-line course, with free continuing education credits, that provides instruction on pesticides and diagnosis and treatment of pesticide poisoning. Many case studies are included. Northwest AHEC offers a

similar course at a reasonable fee of \$20 for continuing education credits. For those providers that may see workers and citizens at risk for hazardous occupational and environmental exposures, it is important to be aware of the types of pesticides most responsible for exposures, determinants of exposure, common health effects, the need for taking an occupational and environmental history to help with diagnosis, and basic treatment measures. These courses can help.



**Learn more about these offerings and the Acute Pesticide Illness and Injury Surveillance Program at [www.ncdhhs.gov](http://www.ncdhhs.gov) (click P for Pesticides under the topic index), or call 919.707.5900, fax 919.870.4810.**

continued from page 1

by the National Institute for Occupational Safety and Health. All 10 of the NIOSH-funded agricultural safety and health centers are participating.

Charles Young, Ashe County Cooperative Extension area agriculture agent, hosted the focus group in his county. He says Extension farm safety programs make a difference in the attitudes and practices of Ashe and Alleghany county farm families, especially the young people who will soon be taking over the reins of the farm from their parents.

“Seeing is believing,” says Young. “At our farm safety field days, we demonstrate tractor rollovers with and without ROPS, using a stuffed dummy at the wheel of

the tractor. You can see the faces in the crowd change when the tractor without a ROPS lands upside down on the dummy at the bottom of the hill. Whether they’re elementary students, high school students, or seasoned farmers, you always hear them gasp.”

NC Farm Bureau offers its members a cash incentive program to help with the cost of retrofitting older tractors with ROPS.

The Tractor Initiative’s goal is to reduce deaths and injuries from tractor rollovers. “We hope this research will help save lives and keep the farming community strong,” says Dr. Borre. “As the Tractor Initiative progresses, we are committed to putting the

research into practice in North Carolina and throughout the southern coastal region.”

More:  
National Tractor Safety Initiative: <http://depts.washington.edu/pnash/tractor.html>  
NC Farm Bureau ROPS incentive program: <http://www.ncfb.org/programs/farmsafety/rops.cfm>



## Safety Training for Christmas Tree Workers

Christmas tree growers, Cooperative Extension, state agencies and others collaborated to provide hands-on safety training for 175 Hispanic/Latino Christmas tree workers last summer. Hudler Carolina Tree Farms hosted the training. The workers came from eight farms in Ashe, Alleghany and Watauga counties in northwestern North Carolina. Della Riley, Ashe County Extension agriculture agent and Dale Hudler, co-owner and manager of Hudler Carolina Tree Farms, organized the event.

Small groups of workers rotated every 30 minutes through stations that demonstrated farm machinery hazards, pesticide protective equipment, fire prevention, and tree shearing safety. Bilingual instructors and interpreters provided the training in Spanish.

A flatbed truck, normally used to haul trees to market, served as a platform for two large group sessions, one on preventive health and another on chain saw safety.

A grant from the NC Agromedicine Institute and Southern Coastal Agromedicine Center provided Spanish interpretation services, bilingual first aid kits, safety equipment, and evaluation.

Evaluation on the day of the training showed that more than half of the workers identified chainsaw safety, shearing safety, pesticide safety, and tractor safety as the most important topics presented. Three months later, evaluators visited five farms for follow-up interviews. One grower commented that workers had made more requests for safety equipment since the training. He observed that “his workers are showing a little more respect for the heavy equipment.” Workers on half the farms visited were observed wearing chaps while shearing.

“The workers really listen to the growers who have learned Spanish and can present pesticide safety information in a practical way,” said Jill Sidebottom, Extension Specialist from the Mountain Horticultural Crops Research & Extension Center. “Having the Sheriff’s department go over driving safety and a volunteer fireman cover fire safety, topics that long-time residents may take for granted,” she added, “made this a real community event.”



## Dr. Elci Joins Agromedicine as Medical Director

Dr. Omur Cinar Elci was named medical director of the NC Agromedicine Institute and Southern Coastal Agromedicine Center in fall 2006.

Elci is an associate professor in the newly formed Master of Public Health program in the Department of Family Medicine at ECU’s Brody School of Medicine.

He brings a wealth of experience to his new role. After earning doctoral degrees in medicine and public health at universities in his home country of Turkey, he moved to the United States and completed post-doctoral research training in occupational epidemiology at the National Institutes of Health.

Elci has 20 years of public health research and practice experience. He worked for



the Centers for Disease Control’s National Institute for Occupational Safety and Health, participating in health hazard evaluations and occupational respiratory disease and exposure assessment research.

“Considering the occupational and demographic spectrum of Eastern North Carolina, the Agromedicine Institute has a critical role in the social and economic improvement of our community,” said Elci. “The newly established and growing collaboration between the ECU MPH Program and Agromedicine Institute will not only improve the two groups’ research capabilities and productivity,” Elci said, “it will also enhance ECU’s commitment to public health in the region. That’s our goal.”