From the Chair, Board of Directors, NC Agromedicine Institute

Ron Mitchelson, PhD

Dear Partners:

During the past six years the NC Agromedicine Institute has been fortunate to have Dr. Deirdre Mageean at the helm as chair of its Board of Directors and Vice Chancellor for Research and Graduate Studies at ECU. Under Dr. Mageean’s leadership the Institute has steadied its course and charted a clear direction for the future as a leader in agricultural health and safety in the mid-Atlantic region. As Dr. Mageean sets sail on her new journey with the Council of Graduate Schools in Washington, D.C., we extend our deepest gratitude and best wishes for the future.

Currently plans are underway to transition the Institute to ECU’s Division of Health Sciences by July, 2017. The transition is being facilitated to: 1) strengthen ECU’s role in the Institute relative to medicine, public health, and allied health; 2) provide the Institute with an academic home enabling it to pursue with its academic partners, development of a graduate degree in Agricultural Health and Safety while also increasing opportunities for undergraduate education and continuing studies; and 3) be consistent with ECU’s Program Prioritization Committee recommendations relative to movement of all centers and institutes to either Health Sciences or Academic Affairs.

The transition will be guided by me, Dr. Phyllis Horns, Vice Chancellor for Health Sciences, the Institute’s Board of Directors and staff. Efforts will be made to ensure that the transition is as seamless as possible and preserves the inter-institutional partnership among ECU, NC State, and NC A&T while ensuring that the Institute remains true to its mission to promote the safety and health of NC’s farmers, fishers, and foresters. Please join me in assuring a bright future for our Institute.

During 2008-2012 the Institute has experienced phenomenal growth in grant funding from many sources, spawning many new ideas. Pilot programs such as AgriSafe and Certified Safe Farm have taken root in a few communities. And academic courses, such as ECU’s Fundamentals of Agromedicine, are beginning to seed the curriculum. With success and growth come excitement - and the need for greater nourishment and broader perspectives.

In early 2012 the NC Agromedicine Institute was poised for the next stage of development. If these early stages of growth were to be sustained and transformed into long-lasting impact, it was clear that the Institute needed a broader base of leadership and support.

While grant funding fuels new ideas and projects, it does not accomplish transfer of research into practice at the grassroots level, nor does it provide the base of support needed to teach new students or re-tool professionals. To reach the next level, a new vision for an expanded Board of Directors began to take shape to achieve these broader, long-term goals.

In March 2012, the NC Agromedicine Institute’s expanded Board of Directors met for the first time. Previously composed of members representing only the Institute’s three constituent universities, East Carolina University (ECU), North Carolina Agricultural & Technical State University (NCA&T), and North Carolina State University (NCSU), the Board now includes the following:

- Two directors from community, faith-based, or other support organizations serving agricultural workers, small farmers and their counterparts in forestry and fisheries
- One member from non-academic and non-governmental agencies involved in the delivery of health care to agricultural, forestry and fisheries communities
- One director from the insurance industry serving the agricultural, forestry and fisheries communities
- Two directors from agribusiness (e.g., agriculture, forestry, and fisheries employers, suppliers, commodity contractors or purchasers) or commodity associations

The Institute welcomes new Board members from three of the four new categories. New Board members from outside the university system include:

- Mott Blair, MD a family physician with Vidant Duplin Hospital in Kenansville and Vidant Family Medicine in Wallace,
- John J. Lemire, Loss Control Director of Forestry Mutual Insurance Co. in Raleigh,
- Miriam Lewis of Lewis Farms, a hog, peanut, tobacco, and cattle operation in Walstonburg, and
- Jack Swanner, Director of Logging and Transportation with the NC Forestry Association in Raleigh.

University representatives on the Board include: Peter Cowen, DVM, MPVM, PhD, Associate

(continued on page 3)
Agricultural Medicine Course Mixes Face-to-Face and Online Learning

Twelve individuals from across North Carolina and Virginia participated in the Institute’s 2012 offering of the Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals course. The course, developed by Dr. Kelley Donham and colleagues at Iowa’s Center for Agricultural Safety and Health (I-CASH) and the University of Iowa’s College of Public Health, provides intensive training for healthcare professionals wishing to become recognized as AgriSafe providers. Others interested in learning more about agricultural safety and health are also encouraged to attend.

Course participants included a Cooperative Extension agent, chemical industry representative, migrant health professionals, university faculty, veterinarians, master of public health student, nurse, occupational therapist, and NC AgrAbility Partnership Coordinator. Dr. Kelley Donham and LaMar Grafft, Agricultural Safety Specialist with ICASH and Carolyn Sheridan, Clinical Director for the AgriSafe Network joined with instructors from across North Carolina to provide course instruction. Course coordination was provided by the Institute in collaboration with ECU’s Division of Continuing Studies and I-CASH. Financial support for the course was provided by the NC Tobacco Trust Fund Commission, I-CASH, and Southern States-Farmville.

Unlike the Institute’s first offering of the course in December 2009 which used a one week face-to-face 40 hour intensive format, this year’s offering piloted a hybrid format combining both face: face instruction and distance education. The new format was developed to reduce the amount of time participants had to be away from their regular activities. However successful participants still indicated that they preferred face: face instruction and hands-on activities like the Thursday evening farm tour and barbecue hosted by Stancill Farms of Pitt County.

Plans are currently underway for the 2013 course which will kick off in mid-January. Individuals interested in attending should contact Robin Tutor-Marcom at 252.744.1045 or tutorr@ecu.edu

Wake County Farmworker Health Program’s Kadi Hodges, RN, ECU’s Dr. Al Schreier and Dr. Greg Kearney, and NC AgrAbility’s Michele Proctor consult with AgriSafe Clinical Director Carolyn Sheridan about PPE during a case scenario exercise.

Chris Stancill introduces students and faculty to his Pitt County farming operation, while I-CASH’s Dr. Kelley Donham and ECU’s Dr. Dorcas O’Rourke look on.

Dr. Jimo Ibrahim of NCA&T and LaMar Grafft of I-CASH discuss farm equipment safety.

Steve Davis, Outreach Coordinator of Greene County Health Care presents farmworker health issues.

Classroom sessions provided an opportunity for inter-disciplinary networking and learning.

Students listen intently as Chris Stancill discusses the mechanism and safety hazards of the cotton combine.

Extension Agent Michelle Shooter and ECU Comparative Medicine faculty Dr. Dorcas O’Rourke and Dr. Matthew Rosenbaum demonstrate PPE during a class exercise.

Students and faculty of the agricultural medicine course get outside for a tour of the Stancill farm.
AgriSafe of the Albemarle Serves Northeastern NC

Albemarle Regional Health Services (ARHS) and the North Carolina Agromedicine Institute were awarded a $110,352 grant for one year by the Kate B. Reynolds Charitable Trust to implement the AgriSafe Program in Camden, Gates, and Hertford counties. ARHS is the local public health agency serving northeastern North Carolina.

To get the program underway, ARHS has hired a registered nurse, Meredith Umphlett, to develop regional partnerships, conduct on-site screenings, provide referrals, conduct education and trainings, and provide follow-up to farms in the area. Screenings will include checks of blood pressure, blood glucose, pulmonary function, and hearing. Training will include health education, respiratory protection, and farm safety.

The program will develop collaborative partnerships with Cooperative Extension, Farm Bureau, agribusinesses, and other agriculture-related organizations to ensure that AgriSafe of the Albemarle is included in all agricultural events in the county. Collaborative partnerships will also be established with healthcare providers and health partnerships to familiarize them with AgriSafe services and concepts as well as to ensure ease of referral and follow-up for individuals identified as needing follow-up care and/or a medical home. AgriSafe of the Albemarle will also work to ensure that healthcare providers and health partnerships understand the unique exposures and challenges associated with working and/or living in the farm environment as well as working with them and agriculture-related partners to develop new strategies for service delivery that consider these exposures and challenges.

Individuals who are identified as having elevated blood glucose, hypertension, decreased lung function, and/or lack of a medical home will be assisted to obtain care from a healthcare provider that is convenient and affordable for them. In addition to ARHS, Albemarle Hospital’s Gateway Community Health Center and Roanoke-Chowan Community Health Center, both federally qualified community health centers as well as Hertford County Public Health Authority, have agreed to work collaboratively with AgriSafe of the Albemarle in providing preventive and primary care to the farming community.

ARHS understands the impact farms and farm workers have on the region and want to ensure the health and safety of all those impacted by the industry. Although the main focus of this program is in Camden, Gates, and Hertford counties, the goal is to expand this program to all seven counties served by ARHS, in addition to Hertford County, and continue services for years to come.

Expanded Board Broadens Institute Vision, Reach

Professor in the NCSU College of Veterinary Medicine, Steven Lommel, PhD Assistant Vice Chancellor for Research of NCSU’s College of Agriculture and Life Sciences, Tom Melton, PhD, Deputy Director and Associate State Program Leader for Agriculture, Natural Resources and Community Rural Development for the NC Cooperative Extension Service at NCSU, Ron Mitchelson, PhD, Interim Vice Chancellor for Research and Graduate Studies of ECU, Lloyd Novick, MD, MPH Professor & Chair of the Department of Public Health in ECU’s Brody School of Medicine, Martha Keehner Engelke, RN, PhD, Associate Dean for Research and Scholarship/Richard R. Eakin Distinguished Professor of Nursing, Barry L. Burks, PhD, Vice Chancellor for Research and Economic Development of NC A&T, William Randall, PhD, Dean of NC A&T’s School of Agriculture and Environmental Sciences, Stephen Thomas, Ed.D., CRC, CVE, Dean of ECU’s College of Allied Health Sciences, and Earnest Walker, PhD, Interim Dean of NCA&T’s School of Technology.

The expanded Board will provide administrative oversight of the Institute and will advocate for and promote the Institute with state leaders and funders. Administrative roles include review of annual reports, input on the annual performance of the Director, and strategic direction of the Institute’s major programs. Board members will work in consultation with the University of North Carolina system General Administration to educate the state legislature about the Institute, maintain public relations with agricultural and health constituencies, support good working relationships across campuses, recruit new partners, and lead the Institute’s fund-raising activities for private donations.

The Institute will soon to fill the two positions for community, faith-based, or other support organizations serving agricultural workers, small farmers and their counterparts in forestry and fisheries.
ECU Connects Allied Health Professionals with NC Farmers through AgrAbility

Assistant professor Dr. Mary Hildebrand and graduate assistant Sarah Timmons of the Occupational Therapy (OT) department in the College of Allied Health Sciences at East Carolina University are conducting a survey of healthcare professionals and rehabilitation personnel. Their goal is to better understand health professionals’ knowledge of the unique needs of North Carolina farmers with disabilities and chronic conditions. This research will help in developing curricula for health professionals and building healthcare capacity to better serve farmers in the state.

North Carolina state associations, such as the NC Occupational Therapy Association, NC Physical Therapy Association, NC Speech Language Hearing Association, and groups representing vocational evaluators and rehabilitation counselors, have emailed a letter to their members with a link to the on-line survey. By distributing the survey link statewide, they hope to get a representative sample from all areas of the state and include both rural and urban practitioners.

Dr. Hildebrand is adapting continuing education curriculum provided by the National AgrAbility Project to reflect the diverse nature of agriculture represented in North Carolina. In addition, she developed an assignment in which 23 occupational therapy graduate students conducted a farm assessment of a local Pitt County farm and made recommendations for modifications and adaptations for simulated case studies of farmers with disabilities.

BEAT THE HEAT

The NC Division of Public Health’s NC 2012 Summer Heat Report indicates high numbers of Emergency Department (ED) visits for heat-related illness this year. The majority of illness is among 25-64 year old males.

- 99 heat-related illness ED visits for July 8 – 16
- 326 heat-related ED visits for the June 29 – July 1 “heat wave”
- 658 heat-related illness ED visits for May 1 – July 16

Stay Cool: Work in early morning and evening hours / Take breaks in the shade
Stay Hydrated: Drink water or sports drinks (2 cups/hour) / Avoid alcohol, caffeine, and sugary drinks
Stay Informed and Plan Ahead: Get acclimated before working outdoors fulltime / Know the heat index; reduce work if index > 100 / Working in full sun adds 15 degrees to heat index / Know heat stress symptoms; seek medical help at once.

FOR MORE INFO:
CDC Extreme Heat Tool-Kit: http://www.cdc.gov/nceh/extremeheat/
NIOSH Annual PPT Stakeholders Meeting Addresses PPE, Heat Stress

Personal Protective Technology (PPT), or Personal Protective Equipment (PPE), as it is more widely known, is a key factor in reducing exposure to harmful chemicals in agriculture. But, PPE, summer heat and humidity, the body heat that comes from hard work, and a worker with unknown health problems, can be a dangerous mix in itself.

Addressing that challenging situation in worker protection was one of many topics at National Institute for Occupational Safety and Health’s (NIOSH) fifth annual meeting of PPT stakeholders held in Pittsburg, PA on March 20-21, 2012. The conference brought together stakeholders from government, industry, universities, and PPT manufacturers and distributors to focus on PPE selection and use in four industry sectors: healthcare, mining, pesticide handlers, and public safety.

Dr. Kim Faulkner of NIOSH convened the Pesticide Handlers group with the goal of understanding barriers and workplace safety culture, developing practical solutions, and improving PPE practices – all to prevent work-related injury, illness and death. Faulkner shared results from scientific studies and interventions, preliminary input from stakeholders, and strategies for reaching goals.

NC Agromedicine Institute Interim Director Robin Tutor-Marcom presented two posters at the meeting: Current Pesticide Education Trends across North Carolina and Personal Protective Technology Use among North Carolina Farms Applying Soil Fumigants. Through the AgriSafe of NC program and the Risk Mitigation Measures projects, Tutor-Marcom has learned much about the health status and PPE use barriers of NC pesticide applicators. Heat stress, health status such as high blood pressure or respiratory conditions, and PPE use is a particular issue of concern in NC.

Dr. Jon Williams a Research Physiologist with NIOSH presented information critical to effectively addressing these issues. The bottom line: the increase in body temperature from exertional (hard work) and/or environmental heat stress can result in excessive core body temperatures leading to heat injury and death. To protect workers from heat stress, proper hydration is critical both in maintaining core body temperature AND reducing cardiovascular strain during exertion in the heat. Dehydration will compromise both the regulation of body heat and cardiovascular stability. These factors are even more important if the additional stress of PPE is a factor in the situation.

Tutor-Marcom continues to participate in the NIOSH Stakeholder group for pesticide handlers with others around the country to develop effective solutions to heat stress and PPE use in agriculture.

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.

EPA Visits NC to Learn Challenges, Successes of Worker Pesticide Safety

Members of the NC Agromedicine Institute and its partners were invited by the NCDA&CS Structural Pest Control & Pesticides Division’s Director Jim Burnette and Deputy Director Pat Jones to meet with U.S. EPA Headquarters pesticide program officials during their visit to NC on May 4. The agenda included an opportunity to discuss outcomes of successful programs.

Robin Tutor-Marcom and George Elderbaum of the EI Group provided an overview of the Risk Mitigation Measures for Soil Fumigants Project and demonstrated respirator fit testing, with Mr. Jim Jones of US EPA as the willing volunteer. NCSU’s Catherine LePrevoost highlighted the development and dissemination of the Pesticides and Farmworker Health Toolkit, an interactive pesticide safety training resource for Spanish-speaking workers. Watauga County Extension Director Dr. Jim Hamilton highlighted innovative efforts of NC Cooperative Extension’s Pesticide Safety Education Program, while Sheila Higgins of NC Division of Public Health provided an update on NC Pesticide Illness and Injury Surveillance Program.

Visiting U.S. EPA Headquarters officials included:

- Jim Jones, Acting Assistant Administrator for the Office of Chemical Safety and Pollution Prevention,
- Kevin Keaney, Branch Chief, Certification and Worker Protection Branch, and
- Ashley Nelsen, Project Officer, Certification and Worker Protection Branch.

Christine Cairns Fortuin, a Life Scientist in the U.S. EPA Region 4 Pesticides Management Section, who serves as liaison to NCDA&CS pesticide programs, also attended.

Strategies for addressing challenges in implementing programs and achieving worker safety were discussed by county Extension agents and NCDA Pesticide managers and inspectors. Finally, the group visited Taylor Nursery in Raleigh to see first-hand how nursery manager Jason Brock ensures that safety measures and record-keeping complies with the Worker Protection Standard.

2012 Migrant Housing Video Available on YouTube

- 2-part video for growers and workers
- highlights Migrant Housing Act of NC requirements
- features housing safety tips
- available in Spanish and English

http://www.youtube.com/user/NCDepartofLabor/videos

produced by NC Department of Labor’s Agricultural Safety and Health Bureau and NC State University
Rolling out the Pesticides and Farmworker Health Toolkit during 2011-2012 found NCSU’s Catherine LePrevost and Julia Storm logging lots of hours on the road, attending many commodity meetings and field days, and cementing many new working relationships. As of June 30, over 410 Pesticides and Farmworker Health Toolkits had been ordered. Introductory sessions or in-depth workshops on the Toolkit were delivered at 34 events. In all, 3,254 people received training, including growers, agency personnel, farmworker outreach workers, and Extension agents. Ten of these events involved in-depth workshops that reached 155 people who directly provide training to Spanish-speaking farmworkers.

February through April, the home stretch of the project, found LePrevost and Storm collaborating with Ronald Hawkins, NC Farm Bureau Safety Team Leader, county Extension agents from nearly 50 counties, and NCFB Field Reps from all 10 regions to deliver five pesticide applicator workshops across the state. Held in Hillsborough, Fayetteville, Mills River, Greenville, and Taylorsville, these workshops offered three hours of applicator credit and reached 104 participants, including 25 landscapers, 19 growers, 22 Extension agents, 18 health outreach or migrant education staff, and 5 state agency personnel.

On workshop evaluations, participants wrote that they were “very impressed with the interactive nature of the class” and that the training was “one of the best hands on classes ever attended.” In addition, workshop trainers LePrevost and Storm observed that growers, health outreach workers, Extension agents, enjoyed the unique opportunity to share experiences and to learn from one another.

An introduction to the Toolkit is included in the 2012-2014 Private Applicator Recertification V Training Curriculum, so growers will continue to learn about the Toolkit.

For more information on the Pesticides and Farmworker Health Toolkit, available for 11 crops, visit http://go.ncsu.edu/pesticide-toolkit.
CALENDAR

September 3, 2012: Grant application deadline: Farm Family Safety grants sponsored by Successful Farming and Farm Safety 4 Just Kids; 10 grants of up to $250; www.fs4jk.org


October 12, 2012: 8:30 am - 4:30 pm. (Registration Deadline: October 3) NC Agricultural Health and Safety Symposium, hosted by NC A&T State University, NC Research Campus, Kannapolis. To register, contact Tina Clift: cliftt@ecu.edu or 252.744.1008 by Wednesday October 3rd.

October 18-20, 2012: 25th East Coast Migrant Stream Forum; Sheraton Virginia Beach Oceanfront Hotel, Virginia Beach, VA; https://m360.ncchca.org/event.aspx?eventID=52599


November 21, 2012: Noon – 2 pm: NC Agromedicine Institute Board of Partners Meeting, East Carolina University West Research Campus, Greenville.

September 24-26, 2013: North American Agricultural Safety Summit, Minneapolis, MN.

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