

# STATION NEWS

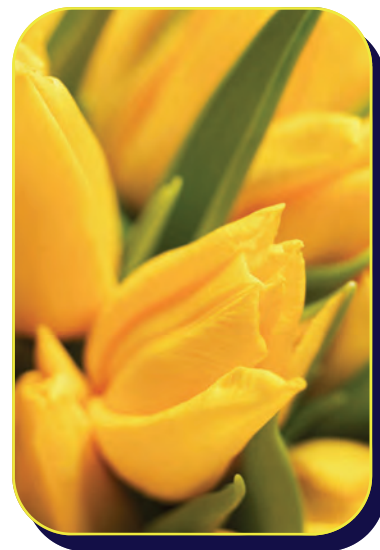
THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION



## THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

STATION NEWS  
*PUTTING SCIENCE TO WORK FOR SOCIETY*

The mission of The Connecticut Agricultural Experiment Station is to develop, advance, and disseminate scientific knowledge, improve agricultural productivity and environmental quality, protect plants, and enhance human health and well-being through research for the benefit of Connecticut residents and the nation. Seeking solutions across a variety of disciplines for the benefit of urban, suburban, and rural communities, Station scientists remain committed to "Putting Science to Work for Society", a motto as relevant today as it was at our founding in 1875.



### VOLUME 3, ISSUE 5

#### Departmental News

Analytical Chemistry	2
Entomology	2
Environmental Sciences	4
Forestry and Horticulture	6

### MAY 2013

Plant Pathology and Ecology	6
Valley Laboratory	7
Grant Awards	8
Journal Articles Approved	8





# STATION NEWS

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

## DEPARTMENTAL NEWS

### ANALYTICAL CHEMISTRY

**DR. JASON C. WHITE**, along with **DR. ROBERTO DE LA TORRE-ROCHE**, met with Professor Jorge Gardea-Torresdey of the University of Texas-El Paso during his visit to the University of Massachusetts and discussed mutual research interests regarding the fate and effects of nanoparticles in the environment (April 1); participated along with **DR. CHRISTINA ROBB** in the annual State of Connecticut Department of Public Health First Responder Training entitled "Responding to a Terrorist Attack: Training for the First Responder" in Rocky Hill, CT; and gave a presentation entitled "Connecticut Agricultural Experiment Station Department of Analytical Chemistry" (180 attendees) (April 9); participated by teleconference in the annual Editorial Advisory Board (EAB) meeting for the journal *Environmental Science and Technology* (April 9) (25 attendees); participated with **DR. BRIAN EITZER**, **MS. KITTIPATH PRAPAYOTIN-RIVEROS**, **DR. WALTER KROL**, **DR. CHRISTINA ROBB**, **MS. TERRI ARSENAULT**, **MR. CRAIG MUSANTE**, **MR. MICHAEL CAVADINI**, and **MR. WILLIAM BERGER** in an FDA FERN Chemistry Cooperative Agreement Program (cCAP) conference call (April 11); participated in a teleconference call for the organizing committee of the upcoming 10<sup>th</sup> International Phytotechnologies Conference in Syracuse NY (April 18); participated with **DR. BRIAN EITZER**, **DR. WALTER KROL**, **MS. KITTIPATH PRAPAYOTIN-RIVEROS**, **DR. CHRISTINA ROBB**, **MS. TERRI ARSENAULT**, **MR. JOHN RANCIATO**, **MR. WILLIAM BERGER**, **MR. CRAIG MUSANTE**, **MR. MICHAEL CAVADINI** and **MR. JOSEPH HAWTHORNE** in a FDA ISO Accreditation Cooperative Agreement Laboratory conference call (April 18); and met with Professors Peter Rabinowitz and Theresa Weis of the Yale University School of Occupational and Environmental Medicine to discuss collaborative research on the analysis of water samples from areas potentially impacted by hydraulic fracturing (April 30).

**DR. BRIAN EITZER** discussed bees and neonicotinoid pesticides with Elizabeth Grossman, a freelance writer developing a story for Yale Environmental 360 (April 17); and discussed bees and pesticides with Siobhan Crise, a writer for the Fairfield Count weekly (April 30).

**DR. CHRISTINA ROBB** attended the Yale seminar entitled "Combining MS Fragmentation Data with an Interactive De Novo Sequencing Program for the Characterization of Circulating Antibodies and Peptide Toxins" by Professor Trixie Ueberheide from NYU Langone Medical Center (April 22).

**MS. KITTIPATH PRAPAYOTIN-RIVEROS** and **MS. TERRI ARSENAULT** visited Ohio Department of Agriculture as part of the FDA ISO Accreditation Mentor-Mentee Laboratory program and co-presented a lecture entitled "Connecticut Agricultural Experiment Station Department of Analytical Chemistry- ISO Accreditation Update" (April 25).

**MR. JOSEPH HAWTHORNE** met with Quinnipiac University Student Adam Hawkes, a former Department research assistant, and discussed ongoing research in the Analytical Chemistry Department (April 2); and participated in a webinar entitled "Pushing the Boundaries of Nanoparticle Characterization: Ultra-fast, Simultaneous Dynamic Light Scattering and Zeta Potential" presented by Dr. Joshua Robinson of Beckman Coulter (April 9).

### ENTOMOLOGY

**MS. TIA BLEVINS** participated in the 39<sup>th</sup> Annual Meeting of the Horticultural Inspection Society, Eastern Chapter, as the chapter's treasurer. She presented the financial report to the members at the business meeting held in Harrisburg, PA (April 8-11). She was re-elected to serve as



# STATION NEWS

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

treasurer for an additional two years.

**MR. MARK H. CREIGHTON** was interviewed about honey bee decline and its impact on CT businesses by Fox Business News (April 5); presented a Power Point talk titled "History of Beekeeping in Connecticut" at the Connecticut Beekeepers Association meeting and also spoke with members and provided registration forms in Windsor (120 attendees) (April 13); participated in a panel discussion at the 2013 Environmental Film Festival at Yale University in New Haven (130 attendees) (April 14); and attended the Backyard Beekeepers Association meeting and spoke with approximately 120 members about bee health and honey bee registration in Weston (April 30).

**MS. KATHERINE DUGAS** staffed a Forest Pest and CAPS booth at North Haven Earth Day held at North Haven Middle School (April 13); staffed a Forest Pest display table at Hamden Earth Day held at Hamden Middle School (April 20); and attended Earth Day events at Two Rivers Magnet School in East Hartford. With the assistance of several students, she presented information about Asian longhorned beetle and Emerald ash borer (April 24).

**MS. ROSE T. HISKES** participated in the Cooperative Agricultural Pest Survey (CAPS) regional meeting along with the Eastern Plant Board in Harrisburg, PA (April 9-11); gave a talk on "Butterfly Gardening" to the People Empowering People program at Calvary Presbyterian Church in Enfield (47 attendees) (April 16); participated in a State Survey Coordinator conference call for the Cooperative Agricultural Pest Survey Program (CAPS) (April 18); participated in a Master Gardener Outreach Fair at the Haddam Extension Center in Haddam presenting opportunities to volunteer in the forest pest program and the CNLA Discovery and Education Garden (April 23); and gave a talk on "Butterfly Gardening" at the Craigin Memorial Library in Colchester (53 attendees) (April 25).

**DR. CHRIS T. MAIER** spoke about "Periodical Cicadas: Natural History, Evolution, and Impact" to the Branford Garden Club in Branford (60 attendees) (April 4); was interviewed about the 17-year periodical cicada by John Burgeson of The Connecticut Post (April 9), by Alissa Smith of the Fairfield Daily Voice (April 10), by Anya Winslow of News 12 (April 11), by Kim Primicerio of the Meriden Record-Journal (April 11), and by John Charlton of Fox Connecticut News (April 12); was interviewed about the 17-year periodical cicada (2<sup>nd</sup> article) by Kim Primicerio of the Meriden Record-Journal (April 12); was interviewed by Renée Rigdon, who is developing a map on periodical cicada distribution for the Wall Street Journal (April 12); was interviewed about the 17-year periodical cicada by Mike Puffer of the Waterbury Republican-American (April 15); was interviewed by Pamela Weil about an article on 17-year periodical cicadas for the Federated Garden Club's newsletter (April 15); was interviewed about 17-year periodical cicadas by Robert Miller of the News-Times of Danbury (April 17), by Judy Benson of The Day of New London (April 22), and by Steve Grant, freelance writer and contributor to the Hartford Courant (April 22).

**DR. GALE E. RIDGE** spoke at Yale/St. Raphael's Hospital regarding managing bed bugs in their emergency rooms and rehabilitation centers (30 attendees) (April 16); with **MS. KATHERINE DUGAS** produced a public awareness poster and a series of lapel buttons that played on a well-known World War II notice, which proved to be very popular.





# STATION NEWS

## THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

**DR. CLAIRE E. RUTLEDGE** participated in review night for the CTPA's Arboriculture 101 course in North Haven (45 adult attendees) (April 10); participated in the Master Gardener's Outreach Fair held in Brooklyn (25 adult attendees) (April 12); presented a talk titled "The Emerald Ash Borer in Connecticut" to the Annual Meeting of the Prospect Land Trust in Prospect (35 adult attendees) (April 24).

**DR. VICTORIA L. SMITH** participated in the 88<sup>th</sup> Annual Meeting of the Eastern Plant Board, as President of the EPB, and with a presentation on Boxwood Blight, held at the Crowne Plaza in Harrisburg, PA (approx. 100 participants) (April 8-11); participated in a meeting of the Yale Biosafety Committee in New Haven (20 participants) (April 18).

**DR. KIRBY C. STAFFORD III** participated in a Connecticut Emerald Ash Borer team meeting in Wallingford (12 attendees) (April 2); provided a Station Update and introduced Dr. Theodore Andreadis at the annual meeting of the Experiment Station Associates at Edgerton Park in New Haven (22 attendees) (April 3); participated in the Board meeting of the Experiment Station Associates at the Experiment Station (8 attendees) (April 9); met with Representative Prasad Srinivasan in Hartford to provide requested information on Lyme disease prevention (April 19); with Michael Rice, CT Department of Construction Services; David Halpern, FLAD Architects; and Steve O'Rourke, A. Secondino & Sons (contractor), held an information session on the Jenkins-Waggoner Project for Experiment Station neighbors (22 attendees) (April 18).

**DR. KIMBERLY A. STONER** participated in a meeting of the Urban Agriculture Working Group of the New Haven Food Policy Council at City Hall in New Haven (20 participants) (April 11); was interviewed about movement of neonicotinoid insecticides into nectar and pollen of squash by Elizabeth Grossman for Yale Environment 360, an online magazine (April 15); and was interviewed about pesticide exposure of honey bees by Siobhan Crise for Fairfield County Weekly (April 30).

### ENVIRONMENTAL SCIENCES

**DR. THEODORE ANDREADIS** presented a seminar entitled *Global climate change and mosquito-borne diseases* to the Experiment Station Associates held at Edgerton Park, New Haven (15 attendees) (April 3).

**MR. GREGORY BUGBEE** Spoke on *Improving Soil in the Home Garden and Landscape* at Whitney Center in Hamden (20 attendees) (April 3); with **MS. JORDAN GIBBONS** gave an Invasive Aquatic Plant Workshop to an environmental science special projects program at Glastonbury High School (20 attendees) (April 5); spoke on *Inner City Gardening in Raised Beds* to prospective gardeners at the United Way Headquarters in Shelton (April 11) (approx. 40 attendees); participated in a meeting of the Bashan Lake Dam Rebuilding Committee at CT DEEP Headquarters in Hartford (12 attendees) (April 18); with **MS. JORDAN GIBBONS** gave an Invasive Aquatic Plant Workshop to residents of the Town of Middletown that are concerned about the condition of Lake Beseck (30 attendees) (April 22).

**DR. JOSEPH PIGNATELLO** co-organized and presided over two scientific sessions, "Symposium on Sorption Reversibility of Organic" and "Inorganic Pollutants in Natural Solids: The Elephant in the Room?" and presented a talk entitled, *Sorption reversibility: introduction and perspective* at the 245th ACS National Meeting; New Orleans, LA ( April 7-11).

**MR. JOHN SHEPARD** presented the invited talks "*Arbovirus Activity in Connecticut 2012*" and "*The Mosquitoes of Connecticut*" at the Clarke Mosquito Control Workshop at Cabela's in East Hartford (60 attendees) (April 12); discussed mosquito evolutionary relationships on a conference call with Tim Johnson and Michele Synder from the HURI/SURI Program at Jamestown and Clinton Community Colleges (NY) (April 17); presented a display on the Mosquito Trapping and Testing Program, mosquito biology, and vernal pools at "Bitten! Bloodsuckers & Climate" at the Yale Peabody Museum of Natural History (1,457 museum visitors) (April 18).



# STATION NEWS

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

**MR. MICHAEL THOMAS** presented a display on the Mosquito Trapping and Testing Program, mosquito biology, and vernal pools at “Bitten! Bloodsuckers & Climate” at the Yale Peabody Museum of Natural History (1,457 museum visitors) (April 18) .



Mr. John Shepard and Mr. Michael Thomas at our CAES display on the “Mosquito Trapping and Testing Program, mosquito biology, and vernal pools” that was held at the “Bitten! Bloodsuckers & Climate” program held at the Yale Peabody Museum of Natural History on April 18.



# STATION NEWS

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

## FORESTRY AND HORTICULTURE

**DR. MARTIN GENT** gave a talk on 'A carbohydrate supply and demand model of vegetative growth: Response to temperature and carbon dioxide' at the 42nd Biological Systems Simulation Group Meeting in University Park, PA (40 participants) (April 23-25).

**DR. ABIGAIL MAYNARD** gave a talk on "Composting and utilization of compost" to the Institute of Learning in Retirement at Whitney Center in Hamden (18 adults) (April 10); helped the Prekindergarten class plant their spring garden (15 children, 2 adults) (April 17).

**DR. WILLIAM NAIL** met with Anne Dropic at Lockwood Farm to discuss pruning strategies for her vineyard (April 2).

**DR. JEFFREY WARD** participated in a panel discussion on environmental careers at Sophomore Career Day - Cheshire High School (75 students) (April 9); interviewed about spring tree care after severe storms by Judy Benson of the New London Day (April 10); spoke about invasive species control on the Farmington Canal Trail with Thomas Sheil of Milone and MacBroom in Cheshire (April 11); gave invited lecture "Impacts of Invasive Species and Deer on Plant Communities" at Paul Smith's College in Saranac Lake, NY (47 attendees) (April 12); participated in a review and update of the written arborist examinations (April 17); visited with Lisa Shufro and three board members of Earthplace to advise on forest management and invasive species control (April 23); spoke on "Woodlot forest management" for the Winchester Land Trust (14 attendees) (April 25); hosted a tour of forest management research plots for DEEP-Forestry and Regional Water Authority staff (5 attendees) (April 26); interviewed about roadside forest management by Tom Fagin of Connecticut Woodlands (April 29).

**DR. SCOTT WILLIAMS** participated in a graduate committee meeting for University of Connecticut student Megan A. Floyd in Storrs (April 1); attended the 69th Annual Northeast Fish and Wildlife Conference, Saratoga Springs, NY (April 9-7); attended and served as Executive Treasurer at the executive committee meeting of the Northeast Section of The Wildlife Society, Saratoga Springs, NY (April 7); presented research titled "Evaluation of Organized Hunting as a Management Technique for Overabundant White-tailed Deer in Suburban Landscapes" at the 69th Annual Northeast Fish and Wildlife Conference, Saratoga Springs, NY (65 attendees) (April 9); gave invited lecture titled "White-tailed Deer Research at The Connecticut Agricultural Experiment Station" at the annual meeting of the South Central Connecticut Regional Water Authority recreation permit holders, New Haven (18 attendees) (April 10).

## PLANT PATHOLOGY AND ECOLOGY

**DR. SANDRA L. ANAGNOSTAKIS** was joined by Serap Acikgoz from Adnan Menderes University in Turkey on April 1<sup>st</sup> for three months. She will be learning new techniques for working with chestnut trees and chestnut blight disease. The chestnut industry is very important in Turkey, and chestnut blight disease now threatens their trees; with **MS. PAMELA SLETTEN**, organized and managed the New York Nut Growers meeting at Lockwood Farm. They led tours of farm plantings and discussed Experiment Station research (43 attendees) (April 6).

**DR. SHARON M. DOUGLAS** was interviewed about the current status of impatiens downy mildew, boxwood blight, and white pine with salt and wind damage from Hurricane Sandy by Will Rowlands of Connecticut Gardener (April 1); gave a presentation titled "Eco-friendly Management of Diseases of the Perennial Garden" for members of the Redding Garden Club in Redding (48 attendees) (April 8); gave an invited presentation as part of a workshop for Master Gardener mentors titled "Diseases in the Landscape." The workshop was held at the Bartlett Arboretum in Stamford (67 attendees) (April 11); organized a lecture series "Playing in the Dirt" for the Institute of Learning in Retirement. The series was held at Whitney Center in Hamden and featured five CAES speakers. Dr. Douglas gave a lecture titled "Eco-friendly Management of Diseases in the Landscape" (16 attendees) (April 17); participated in a panel organized by the CT Tree Protection Examining Board to review questions for the written exam for arborists (April 17); and participated in a conference call of the Boxwood Blight Working Group (April 24).



# STATION NEWS

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

**MS. MARY K. INMAN** gave a presentation titled "Recognition and Management of Plant Diseases in the Landscape" at Hollandia Nursery in Bethel (43 adult attendees) (April 13).

**DR. ROBERT E. MARRA** gave a talk titled "Fungi of the Forests: Friends and Foes" to the Olde Ripton Garden Club at the Plumb Memorial Library in Shelton (30 adult attendees) (April 1).



Zheni Gusho, a Greenwich High School student who has been working with **DR. WADE ELMER**, won the Connecticut Association of Inland Wetlands Commissions Environmental Sciences Award at the Connecticut Science & Engineering Fair held March 12-16 at Quinnipiac University in Hamden. Her presentation was titled "Sustainable Enhancement of Plant Growth and Disease Reduction Using Biochar Soil Additives" and she was one of three students selected to go to the International ISWEEEP Science Fair in Texas in May 2013.

## VALLEY LABORATORY

**DR. CAROLE CHEAH** was interviewed by Jesse Leavenworth of the Hartford Courant on the status of hemlock woolly adelgid infestations in Connecticut and the biological control program (April 11).

**DR. RICHARD COWLES** presented "Chemical control of bed bugs" at the Bed Bug Forum, Middletown (100 attendees) (April 11); and hosted "SWD Research Update" for New England small fruits entomology extension specialists, in Windsor, (15 attendees) (April 24).

**DR. JAMES LAMONDIA** was interviewed about the historical and economic importance of the Connecticut tobacco industry by Ben Van Duyne and three other ninth grade students from the Greenwich Country Day School (April 12); was interviewed about root lesion nematode biology, sampling, extraction and management by University of New Hampshire graduate student Matt Kochka (April 16); participated in a Connecticut Tree Protection Examining Board subcommittee meeting to review written exam questions (April 17); and conducted a tour of the Valley Lab and discussed gardening and ongoing research with developmentally disabled adults from a nonprofit agency in Windsor, Vinfen, (8 attendees) (April 18).



# STATION NEWS

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

**DR. TODD L. MERVOSH** served on the Connecticut Nurserymen's Foundation scholarship committee as four student finalists were interviewed and two were selected as scholarship recipients at the Valley Laboratory (13 attendees) (April 10).

## GRANT AWARDS APRIL 2013

**DRS. SHARON DOUGLAS, JAMES LAMONDIA** and **ROBERT MARRA**, were awarded \$223,916 (the CAES component of a USDA Farm Bill FY2013 submission that was selected for funding) for research on boxwood blight. Dr. Robert E. Marra's component of the award, \$104,564 is for research that will utilize the technologies and expertise associated with the Molecular Plant Disease Diagnostics Laboratory, established in 2005 in the Department of Plant Pathology and Ecology, and involves the development of a SNP-based allelic discrimination assay, to distinguish between two important genotypes of the pathogen. Following development of the assay, the MPDDL will be the country's central repository for determining the genotypes of boxwood blight isolates.

**DR. CHRIS T. MAIER** was awarded a grant to survey 17-year periodical cicadas in Connecticut by DEEP (Wildlife Division).

## JOURNAL ARTICLES APPROVED APRIL 2013

Becnel, James J. and **Theodore G. Andreadis**. Microsporidia in insects (Book Chapter). Microsporidia: Pathogens of Opportunity, John Wiley & Sons, Inc.

**LaMondia, James A.** Fungicide Efficacy Against *Calonectria pseudonaviculata*, Causal Agent of Boxwood Blight. Plant Disease

**LaMondia, James A.** and **Wade H. Elmer**. Salt tolerance of *Meloidogyne spartinae* and *M. hapla*. Journal of Nematology (Abstract)

**Li, Yonghao**. Anthracnose of Tomato. CAES Fact Sheet

**Li, Yonghao**. Powdery Mildew of Tomato. CAES Fact Sheet

Ma, C., S. Chhikara, B. Xing, **Craig Musante, Jason C. White**, O. P-Dhanker. Physiological and Molecular Response of *Arabidopsis thaliana* to Nanoparticle Cerium and Indium Oxide Exposure. ACS Sustainable Chemistry Engineering.

**Stoner, Kimberly A.** and **Brian D. Eitzer**. Using a Hazard Quotient to Evaluate Pesticide Residues Detected in Pollen Trapped from Honey Bees in Connecticut. Public Library of Science One (PLOS ONE)

**Ward, Jeffrey S.** Precommercial Crop Free Release Increases Upper Canopy Persistence and Diameter Growth of Oak Saplings. North. Journal of Applied Forestry

**Zarrillo, Tracy**. Native Bee Monitoring at White Memorial Conservation Center. Sanctuary-Newsletter of the White Memorial Conservation Center



## THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

Main Laboratories  
123 Huntington Street  
New Haven, CT 06511-2016  
Phone: 203-974-8500

Valley Laboratory  
153 Cook Hill Road  
Windsor, CT 06095-0248  
Phone: 860-683-4977

Lockwood Farm  
890 Evergreen Avenue  
Hamden, CT 06518-2361  
Phone: 203-974-8618

Griswold Research Center  
190 Sheldon Road  
Griswold, CT 06351-3627  
Phone: 860-376-0365

*Putting Science to work  
for Society.*



Entrance to The Connecticut  
Agricultural Experiment  
Station in New Haven on  
Huntington Street



Main Laboratories, New Haven



Lockwood Farm, Hamden



Griswold Research Center, Griswold



Valley Laboratory, Windsor

### THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

Back and Current issues of Station News are located on our website at <http://www.ct.gov/caes/cwp/view.asp?a=2826&q=378188>

The Connecticut Agricultural Experiment Station (CAES) prohibits discrimination in all of its programs and activities on the basis of race, color, ancestry, national origin, sex, religious creed, age, political beliefs, sexual orientation, criminal conviction record, gender identity, genetic information, learning disability, present or past history of mental disorder, mental retardation or physical disability including but not limited to blindness, or marital or family status. To file a complaint of discrimination, write Director, The Connecticut Agricultural Experiment Station, P.O. Box 1106, New Haven, CT 06504, or call (203) 974-8440. CAES is an affirmative action/equal opportunity provider and employer. Persons with disabilities who require alternate means of communication of program information should contact the Chief of Services at (203) 974-8442 (voice); (203) 974-8502 (FAX); or [Michael.Last@ct.gov](mailto:Michael.Last@ct.gov) (E-mail).

Station News was prepared and edited by Dr. Louis Magnarelli, Dr. Kirby Stafford, Ms. Tia Blevins, Mrs. Roberta Ottenbreit, and Mrs. Vickie Bomba-Lewandoski.