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# 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 2, ISSUE 11Departmental NewsAdministration2Analytical Chemistry2Biochemistry and Genetics3Entomology3Environmental Sciences4

### NOVEMBER 2012

Forestry and Horticulture	5
Plant Pathology and Ecology	5
Valley Laboratory	6
Journal Articles Approved	7





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# DEPARTMENTAL NEWS

# **ADMINISTRATION**

**DR. LOUIS A. MAGNARELLI** attended the Working Lands Alliance meeting in Windsor, CT and gave a presentation on Station research and other activities (October 9).

# ANALYTICAL CHEMISTRY

DR. JASON C. WHITE participated in the monthly Laboratory Preparedness Network meeting at the Department of Public Health in Hartford (October 1), attended with DR. BRIAN EITZER, DR. WALTER KROL, MS. KITTIPATH PRAPAYOTIN-RIVEROS, DR. CHRISTINA ROBB, MS. TERRI ARSENAULT, MR. JOHN RANCIATO, AND MR. JOSEPH HAW-THORNE, instrument demonstration seminar from Agilent regarding a new Triple Quadrapole Gas Chromatograph to be purchased under a new FDA grant (October 3), participated with DR. BRIAN EITZER, DR. WALTER KROL, MS. KITTIPATH PRAPAYOTIN-RIVEROS, DR. CHRISTINA ROBB, MS. TERRI ARSENAULT, MR. CRAIG MUSANTE, MR. WIL-LIAM BERGER in an FDA FERN Chemistry Cooperative Agreement conference call (October 11); gave a webinar presentation entitled "Phytotechnologies: Use of plants to alleviate environmental contamination" to the General Electric Global Research Sustainable Remediation Team (SRT)(20 attendees), co-chaired the "Plant interactions with environmental contaminants" session at the 28th Annual International Conference on Soils, Sediments, Water, and Energy at the University of Massachusetts-Amherst, MA (October 15-18) and presented a lecture entitled "Nanoparticle exposure increases pesticide residue accumulation by plants" (25 attendees) (October 17), held a teleconference with Dr. Gayathri Gopalakrishnan of Argonne National Laboratory regarding outreach and education efforts for the International Phytotechnology Society (October 18), and participated with DR. BRIAN EITZER, DR. WALTER KROL, MS. KITTI-PATH PRAPAYOTIN-RIVEROS, DR. CHRISTINA ROBB, MS. TERRI ARSENAULT, MR. JOHN RANCIATO, MR. WILLIAM BERGER, MR. CRAIG MUSANTE, AND MR. JOSEPH HAWTHORNE in two FDA ISO Accreditation Cooperative Agreement Program (CAP) conference calls (October 25, 26).

**DR. BRIAN EITZER** presented a seminar entitled "The Use of High Performance Liquid Chromatography/High Resolution Mass Spectrometry in Screening Produce for Pesticide Residues" at the Thermo Scientific LC/MS Users Meetings in Somerset NJ on (October 9) (40 people) and Cambridge, MA on (October 11) (80 people), visited Thermo Fisher headquarters in Somerset NJ to discuss use of a Thermo Triple Quad Gas Chromatograph for pesticide residue analysis (October 9), and participated in a FDA conference call about the FERN cCAP Exactive LC/MS project (October 18).

**DR. WALTER KROL** visited along with **DR. ROBERTO DE LA TORRE-ROCHE, MS. TERRI ARSENAULT, AND MR. JOSEPH HAWTHORNE** Thermo Fisher headquarters in Somerset NJ for a demonstration of the Thermo Triple Quad Gas Chromatograph for pesticide residue analysis (October 26).

### **BIOCHEMISTRY AND GENETICS**

**DR. DOUGLAS W. DINGMAN** conversation with Susan Alquest (Hamden, CT) regarding the transfer of mold spores during product distillation and testing of compounds for vitamin C (October 9).



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# **ENTOMOLOGY**

**MS. TIA BLEVINS, MR. STEPHEN SANDREY AND MR. PETER TRENCHARD** participated in an interstate inspection training program in Riverhead, NY sponsored by the Horticultural Inspection Society, Eastern Chapter (HIS) the National Plant Board. This program brought together HIS inspectors from eight states (CT, DE, ME, MD, NY, NJ, PA and WV) for mock field inspections and training on how to incorporate the Systems Approach to Nursery Certification (SANC) and the Model Nursery Stock Regulation into future field inspections; Half Hollow Nursery in Laurel, NY with 625 acres of container and field grown nursery stock and Van de Wetering Greenhouses in Jamesport, NY comprised of 38 acres, 20 of which are under glass to create optimum growing conditions for annual plugs and rooted liners (October 15, 16).



HIS, Eastern Chapter members at Van de Wetering Greenhouses, Jamesport, NY.

**MR. MARK H. CREIGHTON** set up an information booth and observation hive for Family Fun Day at Massaro Community Farm in Woodbridge (200 attendees) (October 13) and participated in the Winter Prep workshop for the hive at Massaro Community Farm in Woodbridge (20 attendees) (October 20).

**MS. ROSE T. HISKES** gave a talk on "Forest pests" to the Sierra Club at Westmoor Park in West Hartford (13 attendees) (October 11); gave a talk on "Forest pests," with Oscar Najera, to arborists and the public at Neighbor's Link in Stamford (8 attendees) (October 11); participated in a CAPS state survey coordinator conference call (October 18); and moderated an afternoon breakout session on aquatic invasive plants at the Connecticut Invasive Plant Working Group symposium in Storrs (100 attendees) (October 25).

**DR. CHRIS T. MAIER** displayed new entomological books at a meeting of the Connecticut Entomological Society at Middlesex Community College in Middletown (October 19); presented the talk "Return of the Periodical Cicadas (2013): A Brief Review of Biology" at the Annual New England, New York, and Canadian Fruit Pest Management Workshop in Burlington, VT (45 attendees) (October 23).

**DR. GALE E. RIDGE** spoke about self-protection and how to manage bed bug issues in clients' homes to the Connecticut Community Providers Association in Hamden (38 attendees) (October 12); the inquiry office had a bed bug display and table at the annual University of Bridgeport Health Fair (200 visitors) (October 25); and was interviewed about bed bugs and a psychological disorder known as delusions of parasitosis by Harrison Monsky from the Yale Daily News (October 25).



**DR. CLAIRE E. RUTLEDGE** taught the class "Insects that attack trees" for Arboriculture 101 in North Haven (45 adult attendees) (October 10); attended the annual Forest Health Cooperators Meeting in Brattleboro, VT (October 23-24).

**DR. VICTORIA L. SMITH** participated in the Connecticut Urban Forest Council's 24<sup>th</sup> Annual conference & the 8<sup>th</sup> Annual Forest Forum, held at Aqua Turf in Southington, with a presentation titled "Working Within a Quarantine: What you Need to Know" (200 participants) (October 4); participated in the 36<sup>th</sup> Annual Meeting of the North American Plant Protection Organization, held at the Galt House Hotel in Louisville, KY, as the Eastern Plant Board representative to the National Plant Board Board of Directors, and participated in discussions on plants for planting regulations, chrysanthemum white rust, *Phytophthora ramorum*, and emerald ash borer (200 participants) (October 15-18); and participated in the annual NE/NY Forest Health Cooperators Meeting, held in conjunction with the US Forest Service Northeast Area Field Office in Durham, NH, at the World Learning/School for International Training, Brattleboro, VT, with a presentation on forest health surveys, aerial survey results, and emerald ash borer (30 participants) (October 23-24).

**DR. KIRBY C. STAFFORD III** participated on a national emerald ash borer conference call (October 3); participated in a Board Meeting of the Connecticut Coalition Against Bed Bugs (5 attendees) (October 3); participated in a USDA-NIFA Webinar on the new REEport project system (October 11); spoke on the emerald ash borer quarantine and then on the firewood regulations at an informational forum for the CT Professional Timber Products Association at Sessions Woods in Burlington (100 attendees) (October 17); spoke on the emerald ash borer quarantine and then on the firewood regulations at an informational forum for the CT Professional Torum for the CT Professional Timber Products Association at the Middlesex County Extension Center in Haddam (52 attendees) (October 24); and participated in an emerald ash borer agency lead team conference call with the Department of Energy and Environmental Protection, U.S. Forest Service, and USDA-APHIS-PPQ (4 attendees) (October 31).

**DR. KIMBERLY A. STONER** was featured in a story about bees and pollination on "All Things Connecticut" on Connecticut Public Television. Interviews were given by **DR. STON-ER**, Ted and Becky Jones (beekeepers), and Don Dzen (farmer using bees for pollinating blueberries and pumpkins). Summer research assistants **MS. CHRISTY BELL** and **MR. KRYSTIAN MADRID** were also shown collecting samples in a pumpkin field (October 12); and participated in a National Stakeholders Meeting for Honey Bee Health, sponsored by the US Environmental Protection Agency and US Department of Agriculture in Alexandria, VA, and worked with a breakout group on pesticide issues and bees, developing a list of research and extension needs for investigating bee kills possibly caused by pesticides, and for informing growers and other pesticide users about ways to minimize effects on bees (October 15).

### ENVIRONMENTAL SCIENCES

**DR. THEODORE ANDREADIS** was interviewed about West Nile and eastern equine encephalitis virus activity in the state of Connecticut for the 2012 season by Amanda Cuda, Connecticut Post (October 3); was interviewed about West Nile virus activity in the State of Connecticut for the 2012 and the record number of human cases by Sam Gingerella WTIC radio and Ebong Udoma, WSHU Public Radio (October 4); presented a seminar entitled, *West Nile virus: a retrospective look at an emerging mosquito-borne disease in the western hemisphere* to students and professional staff at the Yale Occupational and Environmental Medicine Program (15 attendees) (October 9); with MR. JOHN SHEPARD, MR. MICHAEL THOMAS, DR. PHILIP AR-STRONG and DR. GOUDARZ MOLAEI hosted the Mosquito Task Force Group from the Mystic Aquarium and gave an overview of the Stations research and surveillance programs on mosquitoes and mosquito-borne diseases (5 attendees) (October 15); and with MR. JOHN SHEPARD and MR. MICHAEL THOMAS met with Laura Fawcett and Beth Hines from the Yale Peabody Museum to discuss production of a CAES/Metropolitan Business Academy Video for teachers on mosquitoes and mosquito-borne diseases (October 22).

**MR. GREGORY BUGBEE** was a guest speaker on The Easy Organic Gardener Radio Show with Sheri Frey. A rebroadcast of the show can be found at <u>http://www.gcnlive.com/programs/</u>

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<u>easyOrganicGardener/archives.php</u> (September 23); and spoke at the Connecticut Invasive Plant Working Group Conference at UCONN on *Native Aquatic Plants- Friend or Foe?* (60 attendees). (October 25).

**MS. JORDAN GIBBONS** with Jennifer Fanzutti led the Invasive Aquatic Plant Identification table at the Connecticut Invasive Plant Working Group (CIPWG) symposium (60 attendees) (October 25).

**MR. MICHAEL THOMAS** demonstrated insect collecting and preservation techniques to the UConn Entomology and Yale University Terrestrial Arthropods class at the Yale Forestry Camp in Norfolk, CT (32 students) (September 7-8); assisted DEEP Wildlife Division staff in protecting critical habitat for the globally rare Frosted Elfin, *Callophrys irus* in New Hartford (October 25).

# FORESTRY AND HORTICULTURE

**DR. JEFFREY WARD** spoke on the role of the Experiment Station in protecting Connecticut's roadside forest at the Connecticut Urban Forest Conference (100 attendees) (October 4); interviewed of the about the effect of last year's storms on the health of Connecticut's trees and forests by Steve Grant of the Hartford Courant (October 5); interviewed about fall colors and yellow sugar maples by Steve Grant of the Hartford Courant (October 9); interviewed about the effect of last year's storms on the health of Connecticut's trees and forests by Bridget Ruthman of the Waterbury Republican (October 12); spoke on "Managing and Regenerating Connecticut's Forest Resource" and lead three field exercises on forest management at the Environthon Forestry Workshop in Tolland (120 students and 30 teachers from 25 schools) (October 13); meet with Charlotte Pyle, Landscape Ecologist with CT NRCS, to discuss invasive control at landscape levels in Mansfield (October 18); gave a seminar on "Disturbance and the Connecticut Forest" for the Biology Department at Southern Connecticut State University (26 attendees) (October 23); spoke on tree identification and ecology to students from Coop High School, New Haven (11 students, 2 teachers) (October 26); and attended the Invasive Plant Symposium at Storrs (October 25).

**DR. MARTIN GENT** presented a poster "Effect of daily integrated irradiance on composition of lettuce" at the International Horticultural Society Symposium on Light in Horticulture held in Wageningen Netherlands and moderated a poster session (250 participants) (October 15-18).

**DR. ABIGAIL MAYNARD** spoke to Professor Michael Chiarappa's Environmental History class at Quinnipiac University about the New Crops Program at Lockwood Farm (1 teacher, 20 students) (October 4); and hosted the Prekindergarten and third grade classes from Hamden Hall Country Day School at Lockwood Farm (4 teachers, 33 students) (October 16).

**DR. SCOTT WILLIAMS** attended the combined meeting of the 24th Connecticut Urban Forest Council Conference and the 8th Annual Forest Forum (October 4); co-led an ecological interpretive hike with Guilford Land Conservation Trust President Sarah Williams into the heart of Westwoods (27 attendees) (October 14); gave an invited lecture to the Annual Meeting of the Dudley Farm Foundation about the negative ecological impacts of overabundant white-tailed deer, Guilford (32 attendees) (October 25).

**J.P. BARSKY** staffed a CAES display during the Brooksvale Fall Festival in Hamden (1000+ attendees) (October 13); spoke on tree measurements to students from Coop High School, New Haven (11 students, 2 teachers) (October 26).

# PLANT PATHOLOGY AND ECOLOGY

**DR. SHARON M. DOUGLAS** participated in the monthly Board of Directors meeting of the CTPA in New Haven (October 9).

**DR. WADE H. ELMER** gave an invited seminar titled "Sudden vegetation dieback along the Atlantic and Gulf Coasts" at The University of Maryland's Horn Point Laboratory (25 attendees)

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(October 3) and was given a tour of the marsh restoration project on Poplar Island; gave a presentation on "Sudden vegetation dieback" to the junior and senior classes of the Sound School in New Haven (23 students attended) (October 10); and gave a presentation titled "Comparison of the *Fusarium* species composition between a New England and Chinese salt marsh affected by dieback" at the biennial meeting of the New England Estuarine Research Society on Block Island, RI (35 attendees) (October 11-13).

**MS. MARY K. INMAN** gave a talk on "Maintaining healthy perennials" to the Hill and Dale Garden Club of Glastonbury, at the home of Paula Arnold (24 adult attendees) (October 11).

**DR. ROBERT E. MARRA** presented a talk titled "Fungi of Forest and Landscape: Friends and Foes" to the Orchard Valley Garden Club at the Southington Public Library (40 adult attendees) (October 23); attended the MassMyco meeting, a one-day conference of New England mycologists, at Clark University, in Worcester, MA (60 scientists, including faculty, graduate students, postdocs, and researchers, were in attendance) (October 27).

# VALLEY LABORATORY

**DR. CAROLE CHEAH** attended and presented a poster on "Biological Control of Mile-a-Minute Weed in Connecticut" at the Connecticut Invasive Plant working Group 2012 Symposium, University of CT, Storrs, (October 25).

**DR. RICHARD COWLES** spoke on "Christmas tree management" at the fall meeting of the CT Christmas Tree Growers' Association, Easton (40 attendees) (October 6); discussed "Spotted wing drosophila management" at a twilight fruit growers' meeting sponsored by University of Massachusetts Cooperative Extension, Westfield, MA (20 attendees) (October 11); moderated a meeting sponsored by the Coalition to Conserve Urban Ash Trees, and presented "Overview of emerald ash borer management" to municipal leaders from four states, Eden Prairie, MN (120 participants) (October 22); and followed by meetings with collaborators at Rainbow Tree Care and Rainbow Pest Control, Minnetonka, MN (October 23).

**DR. JAMES A. LAMONDIA** participated in the Connecticut Vegetable and Small Fruit Growers conference Steering Committee meeting in Tolland (October 10); taught a class on identification, biology and management of tree diseases to students in the Connecticut Tree Protective Association's Arboriculture 101 class in North Haven (40 attendees) (October 24); participated in a hops and malt-grain conference held at the Valley Laboratory (25 attendees) (October 24); and spoke about research results at the annual meeting of the Northeast Regional Multistate Nematology Technical Committee (NE-1040) held in Knoxville TN (15 attendees) (October 29 and 30).

**DR. TODD L. MERVOSH** spoke about weed management at the fall meeting of the Conn. Christmas Tree Growers Association in Easton (20 attendees) (October 6); assisted three classes of Suffield High School science students and their teacher Justin Kaput (a former summer assistant at the Valley Laboratory) with plant identification during field walks (60 students) (October 11); and spoke about control methods for invasive plants at the Conn. Invasive Plant Working Group symposium at UConn-Storrs (100 attendees at talk; 460 total attendees) (October 25).

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# JOURNAL ARTICLES APPROVED OCTOBER 2012

Anagnostakis, Sandra L. A preliminary report on Asian chestnut gall wasp on species and hybrids of chestnut in Connecticut

Anagnostakis, Sandra L. and Cornelia C. Pinchot. Restoration of chestnuts as a timber crop in Connecticut. Acta Horticulturae

Huang, Cheng-Hua, P. D. Roberts, L. R. Gale, **Wade H. Elmer**, and L. E. Datnoff. Population structure of *Fusarium oxysporum* f. sp. *radices-lycopersici* in Florida inferred from vegetative compatibility groups and micro-satellites. European Journal of Plant Pathology

**De La Torre Roche, Roberto, Joseph Hawthorne, Craig Musante**, B. Xing, L. A. Newman, X. Ma, **Jason C. White**. Impact of Ag Nanoparticle exposure on DDE bioaccumulation by *Curcurbita pepo* (Zucchini) and *Glycine max* (Soybean). Environmental Sciences and Technology.

**Douglas, Sharon M.** Leafspot diseases of ornamental trees and shrubs. CAES Fact Sheet (revised October 2012)

Li, De-Wei. Book review for "Fundamentals of Mold Growth in Indoor Environments and Strategies for Healthy Living" Mycological Society of America Newsletter

Nguyen, Hang N. and **Joseph J. Pignatello**. Laboratory tests of biochars as absorbents for use in recovery or containment of marine crude oil spills. Environmental Engineering Science

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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

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