Station News A progress Report for staff

and Friends of America's first Agricultural Experiment Station

Departmental News

A VISIT OF A CHINESE DELEGATION FROM HUBEI PROVINCIAL ACADEMY OF FORESTRY, CHINA

A Chinese delegation visited The Connecticut Agricultural Experiment Station on Tuesday, May 26, 2009. They visited Dr. Jason White and Dr. DeWei Li's laboratories during their visit. The members of the delegation include as follows:

Dr. Jiming Hu, Vice Director and Research Scientist, Hubei Provincial Academy of Forestry.

Dr. Jingyuan Chen, Research Scientist, Chief Scientist of Institute of Forest Insect and Disease Control, Hubei Academy of Forestry.

Dr. Sanshan Cai, Assistant Research Scientist, Institute of Forest Insect and Disease Control, Hubei Academy of Forestry.

Their research is focused on bioremediation, mycology, and forest protection.

The schedule of their visit was as follows.

- 8:30 am arrive at Valley Laboratory
- 8:40 am leave for New Haven
- 9:30 am-9:40 am visit with Dr. Louis Magnarelli
- 9:45 am-11:30 pm visit with Dr. Jason White
- 12:00 noon-1:00 pm lunch
- 1:00 pm leave for Valley Laboratory
- 4:30 pm leave for BDL Airport



(left to right)- Dr. Sanshan Cai, Dr. Jiming Hu, **DR. JASON WHITE**, and Dr. Jingyuan Chen



(left to right)- **DR. JASON WHITE**, Dr. Jingyuan Chen, **DR. DEWEI LI**, and Dr. Jiming Hu

GATEWAY GIRLS GO GREEN STEM EXPO

The Experiment Station participated in the *Girls Go Green STEM Expo* sponsored by The Community Fund for Women & Girls, of the Community Foundation of Greater New Haven, the Connecticut Women's Education and Legal

Fund, and Gateway Community College held on 1 May 2009 in North Haven. Over 100 middle school girls from seven local urban and suburban schools attended the event, which promoted technology, engineering, science. and mathematics (STEM) professions to young Dr. Sharon Douglas organized the women. Station's participation, which included two hands-on workshops and a booth. One entitled "F.S.I. (<u>F</u>ood <u>Safety</u> workshop, Investigations--DNA Fingerprinting), was written by Dr. Douglas Dingman and assisted by Dr. Neil Schultes and Ms. Vickie Marie Bomba-Lewandoski. The second workshop was entitled "What is Your DNA Alias?" and was written by Dr. Douglas and assisted by Ms. Michelle Salvas. Ms. Tess Foley staffed the Station booth and distributed information on events open to the public (e.g., Plant Science Day, Spring Open House), research programs, the Research Foundation, and opportunities for careers in science.



Students started the *Expo* with an exercise focused on turning trash into art.



Some members of the CAES workshop "team," Vickie Bomba-Lewandoski, Michelle Salvas, Neil Schultes, and Doug Dingman.



Tess Foley shows Neil Schultes what she will be distributing to *Expo* attendees at the CAES booth.



Vickie Bomba-Lewandoski helps students analyze DNA fingerprints.



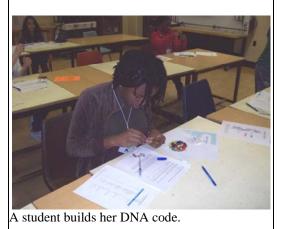
Neil Schultes discusses how to align DNA fingerprints during the FSI Workshop.



Doug Dingman discusses how DNA fingerprints are used to sleuth out a fictional "disease outbreak" at a picnic.



Sharon Douglas helps a student "translate" her DNA code into a key ring made of bead "codons."





Students discuss their findings during a CAES workshop.

STATION PARTICIPATES IN THE THIRD ANNUAL NORWALK-WILTON TREE FESTIVAL

Several Experiment Station staff represented the Station at the Third Annual Norwalk-Wilton Tree Festival under overcast skies at Cranberry Park in Norwalk to teach children and their parents about trees, exotic insects, and honey bees on Saturday, 16 May 2009. This year, the Station was given two booths, a reflection of the organizers' recognition of the importance of the Station's contributions to the health of urban trees in Connecticut. Drs. Doug Dingman, Sharon Douglas, Robert Marra, and Claire Rutledge, along with Ms. Lisa Kaczenski and Mr. Ira Kettle, distributed Station publications, coloring books, and other literature to attendees. Young and old were attracted to the honeybees, marveled at the size of the Asian Longhorned Beetle, and asked questions about tree diseases. Over 950 adults and 600 youths participated in the event.



Assisting Claire Rutledge at The Experiment

Station's "Asian Longhorned Beetle Booth" were Robert Marra and Lisa Kaczenski.



Ira Kettle handed out "I Learned About Honeybees at the CAES Booth" stickers that were very popular with attendees.



Claire Rutledge fascinated her audience with a detailed story about the life cycle of the ALB.



Both CAES booths were very busy throughout the day.



Doug Dingman explaining about honeybees to a Festival attendee.



Sharon Douglas wore several hats for the Festival, including CAES photographer, tree disease expert, and "honorary arborist" for the day.



Festival attendee at the Station's Asian Longhorned Beetle Booth.

Administration

DR. LOUIS A. MAGNARELLI participated on a subcommittee meeting of the Governor's Committee on Effects of Climate Change on Agriculture in Windsor (May 11); was interviewed on insect pests of ash trees by Terry Dunkel, a freelance writer (May 20); and welcomed visitors from China and spoke about research programs at the Station (May 26).

Analytical Chemistry

Provided a "hands-on" laboratory demonstration to seven students and their teacher from the High School in the Community in New Haven. The demonstration showed the significant effect that washing produce under tap water has on reducing pesticide residues in fresh produce (May 28).



Several students and their teacher from the High School in the Community in New Haven spent the morning of May 28 in the laboratory with **DR. WALTER KROL**.

DR. CHRISTINA S. ROBB attended HILIC Day presented by Merck SeQuant as part of the American Society for Mass Spectrometry meeting in Philadelphia (May 31).

Biochemistry and Genetics

DR. DOUGLAS DINGMAN, DR. NEIL SCHULTES, and **MS. VICKIE BOMBA-LEWANDOSKI** conducted a hands-on workshop "FSI: DNA Fingerprinting" with twenty-eight seventh grade greater New Haven area students as part of a day-long 'Girls Go Green: Science, Technology, Engineering and Math" program co-sponsored by Gateway Community College, the Connecticut Community College System and Connecticut Women's Education and Legal Fund (May 1).

DR. NEIL SCHULTES visited a second grade class at the Guilford Lakes Elementary School in Guilford, CT and spoke to the twenty two students about what a plant scientist does at work. We went over how seeds work and dissected different types of fruit to locate the seed (May 26).

MS. CYNTHIA MUSANTE talked to a 2nd grade Girl Scout Troop about ticks (May 26).

DR. DOUG DINGMAN presented a workshop entitled "FSI DNA-fingerprinting" at the Gateway Girls Go Green EXPO (North Haven, CT) (May 1); participated in a meeting for the Program Arrangement Committee of the Quinnipiac chapter of sigma Xi (Hamden, CT) (May 14); and demonstrated honeybees in the CAES booth at the Norwalk-Wilton Tree Festival (Norwalk, CT) (May 16).

Entomology

MS. ROSE BONITO arranged and set-up an educational display for the month of May for the patrons of the New Haven Free Public Library. The business librarian has written that "Our patrons are always quite impressed by the information provided by your (Entomology) department. ...our patrons have gained a deeper understanding of "bugs and insects" and a great respect for the men and women who study them." (May 1-May 29).

MR. IRA KETTLE gave a honey bee presentation to The Goshen Garden Club (70 attendees) (May 7) and presented live bees at the Norwalk Tree Festival (approximately 750 people attended this event) (May 16).

MS. ROSE HISKES with **DR. KIRBY STAFFORD**, assembled and presented a poster on Asian Longhorned Beetle, Emerald Ash Borer and Don't Move Firewood to the Connecticut Groundskeepers at Lockwood Farm in Hamden (May 4); taught a course "Trees and Shrubs for Connecticut Gardens" in Windsor (May 7,14, 21); gave a talk on Asian Longhorned Beetle, Emerald Ash Borer and Don't Move Firewood to the Connecticut Campground Owners Association in Lisbon (May 13); participated in two regional conference calls of the NE Exotic Forest Pest Outreach and Survey Team (May 14, 28); organized and taught at a Train-the-Trainer workshop for Asian Longhorned Beetle, Emerald Ash Borer and Don't Move Firewood in Windsor (May 19); and gave a talk on "Vegetables and Drought" to the Enfield Garden Club in Enfield (May 27).

DR. GALE E. RIDGE was interviewed by the Day new paper on the population decline of Connecticut bats and how this might affect agricultural crop pests (May 18). Discovered an exotic termite accidentally introduced into Connecticut. The West Indian Powderpost Drywood termite *Cryptotermes brevis* (Walker) and is a major structural pest in southern Florida and the Caribbean. It is not believed that this termite can survive in New England (May 20).

DR. CLAIRE RUTLEDGE gave talk entitled "The history of Connecticut's forests and the impact of invasive" to The Environmental Studies School Course II of the Federated Garden Clubs in Jones Auditorium (40 attendees) (May 6); gave a talk entitled "Using a native wasp to find the Emerald Ash Borer" to the Connecticut Entomological Society in Jones Auditorium (20 attendees) (May 15); manned a booth on Asian Longhorned Beetle and Emerald Ash Borer at the Norwalk-Wilton Tree Festival in Norwalk, CT (approximately 1,000 festival attendees) (May 16); and gave a talk entitled "The Emerald Ash Borer' at the Forest Pest Outreach 'Train the Trainers' session at Valley Laboratory (25 attendees) (May 19).

DR. VICTORIA SMITH participated in a meeting of the National Plant Board *Phytophthora ramorum* Working Group, held at Embassy Suites in Nashville, TN (25 participants); and was selected to be on the Steering Committee for the National Ornamentals Research Site at Dominican University of California, also known as the *P. ramorum* Farm (May 19-22).

DR. KIRBY C. STAFFORD, III spoke on ticks and Lyme disease and the Asian longhorned beetle at the White Memorial Conservation Center in Litchfield, CT (33 attendees) (May 2); spoke on ticks and Lyme disease and presented a poster on the Asian longhorned beetle at a meeting of the Connecticut Groundskeepers Association at Lockwood Farm (35 attendees) (May 4); spoke on ticks and Lyme disease to members of the Nutmeg Chapter of the American Society of Safety Engineers (25 attendees) (May 6); interviewed by Sam Gingerella, WTIC-Radio, about ticks and Lyme disease (May 7); gave a presentation on Station history and an update to Experiment Station Associates in Jones Auditorium (58 attendees) (May 12); and spoke on ticks and Lyme disease to the Norwalk PTO Council at the Cranbury Elementary School in Norwalk (14 attendees) (May 18).

DR. KIMBERLY A. STONER participated in a course on "The Identification, Ecology, and Monitoring of Native Bees" presented by Sam Droege of the U.S. Fish and Wildlife Service at the National Conservation Training Center in Shepherdstown, West Virginia (May 4-8); participated in a meeting of the Board of Directors of CT NOFA in Berlin (12 attendees) (May 17); participated in a meeting of the Organic Land Care Committee of NOFA at the Valley Laboratory (7 attendees) (May 19); and made a presentation on organic management of insect pests and disease for FRESH New London a their community farm (25 attendees) (May 30).

Forestry and Horticulture

DR. JEFFREY WARD interviewed about barberry and ticks by Ann Bertini of the Connecticut Academy of Science and Engineering (May 1); spoke on "Effectiveness of deer repellents" to the Connecticut Groundskeepers Association in Hamden (30 attendees) (May 4); spoke on "Trees and their use in the landscape" for the Federated Garden Clubs of Connecticut (25 attendees) (May 6); spoke on "How plants grow" for the Calvin Hill Kindergarten in New Haven (20 students, 5 teachers) (May 8); interviewed about trees and pollen by Judy Benson of the New London Day (May 11); attended a Management Advisory Council meeting in Newington (May 20); along with **DR. SCOTT WILLIAMS** and **MR. JOSEPH BARSKY**, attended Yankee Division-Society of American Foresters field meeting at Yale Myers Forest in Eastford (May 29); and was awarded the Dr. David M. Smith Outstanding Forester Award by the Yankee Division-Society of American Foresters (May 29).

DR. MARTIN GENT visited Sound School Agriculture class at Pardee Greenhouse New haven to discuss prospects and problems with hydroponic vegetable production (10 students) (May 15) and attended an open house at Geremia Greenhouse, Wallingford CT. The open house was to propose a publicly-funded demonstration greenhouse for new technology (50 attendees) (May 15).

DR. ABIGAIL MAYNARD spoke on composting and the utilization of compost at the Old Ripton Garden Club in Shelton (35 adults) (May 4); visited Ellsworth Orchards in Sharon and discussed new crops with Ed Bozzi (May 15); spoke about the New Crops Program to the Botany Class at North Haven High School (21 students, 3 adults) (May 30); evaluated student projects at Hamden Hall Country Day School (12 students) (May 21); and reported on Station activities at a quarterly meeting of the Council on Soil and Water Conservation in Windsor (May 28).

DR. WILLIAM NAIL participated in a meeting of the State Consulting Committee for Agricultural Education at the Agricultural Science and Technology Center at Glastonbury High School (May 26).

DR. SCOTT WILLIAMS lectured at the Town of Fairfield Conservation Committee meeting on the impacts of overabundant deer on forested ecosystems (20 attendees) (May 4); participated in the Connecticut Urban Forest Council meeting in New Haven (May 20); awarded grant of \$3400 from the Connecticut Chapter of the Nature Conservancy to continue to research the impacts of browsing deer on forest regeneration (May 11).



DR. JEFFREY WARD showed Calvin Hill Kindergarten (New Haven) students how to grow plants.



DR. JEFFREY WARD (r) received the Dr. David M. Smith Outstanding Forester Award by the Yankee Division-Society of American Foresters.

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Plant Pathology and Ecology

DR. DONALD E. AYLOR gave a series of invited lectures on "Aerobiology of plant pathogens" to graduate students and faculty from Denmark, Finland, Norway, and Sweden, as part of the Annual Nordic Course in Plant Pathology, hosted by Uppsala University, in Älvkarleö, Sweden (31 adults attended) (May 22-29).

DR. BOTOND BALOGH attended the Twilight Meeting of the Connecticut Pomological Society at Silverman's Farm in Easton (April 28).

DR. SHARON M. DOUGLAS participated in a meeting of the CTPA Education Committee to outline a new workshop on tree preservation (5 adults attended) (May 4); presented an invited lecture entitled "History of plant disease—The Irish Potato Famine and more" at the Whitney Center in Hamden. Among those in attendance were retired CAES scientists Drs. Saul Rich and Lester Hankin (55 adult attendees) (May 18); attended the Annual Meeting and Award Ceremony for The Community Fund for Women & Girls, of The Community Foundation for Greater New Haven. Also in attendance were **DR. LOUIS MAGNARELLI** and **MS. TESS FOLEY**. The Station's Research Foundation was presented with a check for a grant that was awarded for a "Middle School Girls Science Mentoring Program" (100 adult attendees, May 20).

DR. WADE H. ELMER gave a talk entitled "Earthworms and soil health" to the Bauer Park Gardening group in Madison (5 adult attendees) (May 5).

MS. MARY K. INMAN spoke about Experiment Station services available to the public to a group at the Russell Public Library, as part of their "Green Children" Program to involve families in vegetable gardening, in Meriden (22 adults attended) (May 20).

MS. PAMELA SLETTEN initiated a contact with North Haven High School and arranged for a talk by **DR. SANDRA L. ANAGNOSTAKIS** and **MS. PAMELA SLETTEN** on their chestnut research for the AP Biology class at North Haven High School (17 seniors and 1 teacher attended) (May 8) and planted two American and two Chinese chestnut trees on school property and talked to the students about planting and growing the trees.

Soil and Water

DR. THEODORE ANDREADIS was interviewed about mosquitoes, West Nile virus, and the upcoming season by Sam Gingerella for a Sunday morning program on WTIC radio (May 7); met with William Wright, a Clinical Fellow in Medical Microbiology in the Department of Pathology and Laboratory Medicine Yale University School of Medicine and gave an overview of the Station's *Mosquito and Arbovirus Research and Surveillance Programs* (May 13); was interviewed about crane flies and ineffectiveness of electronic bug zappers for controlling mosquitoes by Harlan Levy, Manchester Journal Inquirer (May 13); and was interviewed about mosquitoes, West Nile virus and the mosquito trapping and testing program by Matthew Engelhardt, Manchester Journal Inquirer (May 20).

DR. PHILIP ARMSTRONG served as a judge at the New Haven Science Fair (May 12-13).

DR. JASON WHITE met with Professor William Manning (UMass) and Professor Julia Kuzovkina (UConn) at CAES to begin the second year of a collaborative experiment investigating the impact of ozone on plants (May 26) and met with Dr. Sanshan Cai, Dr. Jiming Hu and Dr. Jingyuan Chen of the Hubei Provincial Academy of Forestry in China and discussed my phytoremediation research (May 26).

MS. MARTHA BALFOUR gave 10 invasive aquatic plant workshops to a total of 150 seventh grade students at Canton Middle School as part of the "Discovery at Mills Pond" program (150 seventh grade students) (May 15).

Valley Laboratory

DR. CAROLE CHEAH together with **DR. TODD MERVOSH** and Donna Ellis from UCONN met with DEP and Spectra Energy officials at Quinnipiac River State Park (March 23) to discuss biological control of Mile-a-minute vine and attended the 2009 CT Conference on Mile-A-Minute Vine at Windsor, CT (March 24).

DR. JAMES A. LAMONDIA conducted a day-long train-the-trainer NE-SARE Professional Development Program Workshop on 'Diagnosis, Visual Assessment and Management of Plant-Parasitic Nematodes of Vegetables and Small Fruit in the Northeast' in Monmouth Maine (24 attendees) (May 6).

DR. DEWEI LI made a presentation "Mycology, Indoor Fungi and Biotechnology" to 19 senior students of a biology class at Windsor High School (May 14) and hosted a Chinese delegation from Hubei Provincial Academy of Forestry visiting CAES (May 25 to 26). The delegation visited both the Valley Laboratory and New Haven campus. They spent a few hours in the afternoon of May 25 (Memorial Day) in DeWei's Laboratory working on the hyphomycete specimens collected by DeWei and Jingyuan Chen (a member of the delegation during DeWei's visit to Wufeng, Hubei last year). On May 26, they met with director **DR. LOUIS MAGNARELLI, DR. JAMES LAMONDIA, DR. JASON WHITE** (gave a presentation), and several scientists at Valley Laboratory.

DR. TODD MERVOSH spoke about native and non-native invasive plants and assisted students and instructors from the Suffield High School Agriscience Program with a vegetation survey of a wooded property owned by the Suffield Land Conservancy (21 youth, 3 adults) (May 20).

MS. MICHELLE SALVAS assisted **DR. SHARON DOUGLAS** in the Gateway Girls Go Green! STEM expo at the Gateway North Haven Campus (May 1).

Journal Articles Approved May 2009

Anagnostakis, Sandra L. and G. Miller. Melanconis from grafted chestnut trees. Mycologia

- Gent, Martin P. N., Wade Elmer, Richard McAvoy, Joseph Geremia. Partial Saturation Ebb & Flow Watering: Water and Fertilizer Use and Plant Growth. Plugged In (CT Greenhouse Growers Association Newsletter)
- Gent, Martin P. N. and Michael R. Short. Recycled Nutrient Solution for Greenhouse Tomato Grown in Rockwool. HortScience
- LaMondia, James A. CT River Valley Blue Mold Web Page 2009. www.CTValleyTobacco.org
- Marra, Robert E. and De-Wei Li. First report of *Pestalotiopsis paeoniicola* causing twig blight on *Paeonia suffruticosa* in North America. Plant Disease
- Nail, William R. Effects of Horticultural Oil on Incidence and Severity of Harvest Rots or Winegrapes. American Society of Enology and Viticulture – Eastern Section
- Pignatello, Joseph J. Bioavailability of Contaminants in Soil. "Advances in Applied Bioremediation" in "Soil Biology" Series; Springer, Germany
- Jablonowski, Joseph, **J. Pignatello**, A. Schaeffer, P. Buraul. Still Present After All These Years. Science (Policy Forum)

- Chen, G. C., X. Q. Shan, Y. S. Wang, B. Wen, Z. G. Pei, Y. N. Xie, T. Liu, and Joseph J. Pignatello. Effect of Cupric Ion on the Sorption of 2,4,6-Trichlorophenol Onto Multi-Walled Carbon Nanotubes. Water Research
- Grebel, J. E., Joseph **J. Pignatello**, W. Song, W. J. Cooper, and W. A. Mitch. Impact of Halides on the Photobleaching of Dissolved Organic Matter. Marine Chemistry
- Garnett, J. M., N. P. Connally, **Kirby C. Stafford, III**, M. L. Cartter. Evaluation of Deer Targeted Interventions on Lyme Disease Incidence in Connecticut. Vector Borne Zoonotic Diseases
- Ward, Jeffrey, S. Worthley, Scott C. Williams. Effect of Clump Size on Japanese Barberry Control. Invasive Plant Science and Management

Grant Awards May 2009

DR. CAROLE CHEAH was awarded the following grants for Establishment of a HWA predator field insectary (APHIS March 2009); Implementation of biological control of mile-a-minute vine in CT, together with **DR. TODD MERVOSH** and Donna Ellis from UCONN (APHIS March 2009); CT HWA survey and monitoring (USDA Forest Service May 2009); Artificial diet development for Mile-a-Minute biocontrols (USDA Forest Service May 2009); Artificial diets for HWA predators (USDA Forest Service May 2009) and Quality and process control for production of HWA predators (USDA Forest Service May 2009), in collaboration with Dr. Allen Cohen, NC State.

MR. GREGORY BUGBEE received a two year grant for \$9,600 from The Connecticut Department of Environmental Protection to document the effects of hydraulic dredging on the population of Eurasian water milfoil and associated invasive and native plant species.

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION RESEARCH FOUNDATION and **DR. SHARON DOUGLAS** were awarded a grant for \$3,500 from The Community Fund for Women & Girls, of The Community Foundation for Greater New Haven, for a program entitled "Middle School Girls Science Mentoring." (May 20).

DR. SCOTT WILLIAMS was awarded a grant of \$3,400 from the Connecticut Chapter of the Nature Conservancy to continue to research the impacts of browsing deer on forest regeneration (May 11).

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, 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, Abstract write Director, The Connecticut Agricultural Experiment Station, P.O. Box 1106, New Haven, CT 06504, or call (203) 974-8440. CAES is an 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 (E-mail).