# Station News A progress report for staff

# and Friends of America's first Agricultural Experiment Station



# **Departmental News**

# GRISWOLD RESEARCH CENTER OPEN HOUSE

On Saturday, 3 October 2009, the Experiment Station's Griswold Research Farm held its first Open House. In spite of the rain, 14 adults and 4 children attended. Poster presentations were moved inside, and Robert Durgy presided. He explained the plans for the Farm and the goal to construct a building to house a laboratory and meeting room. Dr. Sandra Anagnostakis had an exhibit on chestnut research at CAES and about the new chestnut planting in Griswold. Dr. Francis Ferrandino, Mr. John Shepard, and Dr. Richard Cowles had exhibits on their work and explained what they are doing at the Griswold Farm. There was great interest in all of this, and neighbors who had come wanting to hear what was going on at the facility, went away happy to know that the land was again being put to good use.



Mr. John Shepard explaining mosquito trapping and eastern equine encephalitis at The Station's Griswold Research Center's first open house.

#### KIMBERLY STONER HONORED

Dr. Kimberly Stoner was honored at the 63<sup>rd</sup> meeting of the Southwest Conservation District on October 26th in Milford. A certificate of achievement was presented by Director Roman S. Mrozinski as an "Outstanding Partner in Support of Natural Resource Conservation" given for her work at the Experiment Station and volunteer work starting the Boulder Knoll Community Farm in the Town of Cheshire. Dr. Stoner is President of the Friends of Boulder Knoll. Dr. Kirby Stafford also attended the meeting in support of Kimberly's award.

Congratulations Kim! (35 attendees) (October 26).



Certificate of Achievement to Dr. Kimberly Stoner.



Dr. Kimberly Stoner and Mr. Roman Mrozinski.

#### **Administration**

**DR. LOUIS A. MAGNARELLI** was interviewed about regulations for ALB and emerald ash borer by Nancy Cohen of WNPR (October 6); participated in a meeting on effects of climate change on agriculture at the CT Farm Bureau office in Windsor (October 8); and participated in a meeting of the Invasive Plants Council in Windsor (October 13).

## **Analytical Chemistry**

**DR. BRAIN EITZER** was interviewed and broadcasted as part of the Colin McEnroe show on WNPR (October 5) and attended a Laboratory Preparedness Advisory Committee Meeting in Hartford (October 5).

**DR. WALTER KROL** was quoted on page 5 of the October issue of *Prevention* Magazine with regards to the most effective method for removing pesticide residues from fruits and vegetables (October 2009 issue) and organized and ran a poster competition for students from K-12 on behalf of the New Haven Section of the American Chemical Society. The theme of the contest was 'Chemistry – It's Elemental'. A total of 287 posters were received, and the posters were judged during National Chemistry Week (October 18-24). Winners of the contest will be invited to an awards ceremony to be held at the Connecticut Agricultural Experiment Station in late May 2010.





**DR. JASON WHITE** participated in a conference call with Dr. Scott Angle (University of Georgia) and Dr. Lee Newman (Brookhaven National Laboratory) to discuss the appointment of a new Senior Associate Editor for the *International Journal of Phytoremediation*, Dr. White is the Managing Editor for the journal (October 2); attended the Final International Conference of COST Action 859 entitled "Phytotechnologies to promote sustainable land use and improve food safety" in Ascona Switzerland from October 10-15. Dr. White presented a keynote lecture entitled "Phytoextraction of hydrophobic pollutants" (October 10-15); and led a conference call for all Session chairs of the upcoming 6<sup>th</sup> International Conference on Phytotechnologies to be held in St. Louis, MO from December 1-4 (October 21); and is Vice President of the International Phytotechnology Society.

#### **Entomology**

MS. ROSE HISKES conducted a Cooperative Agricultural Pest Survey state committee meeting in Windsor (June 2); with MS. TIA BLEVINS, attended an Integrated Survey Information System (ISIS) webinar (June 9); participated in an Asian Longhorned Beetle (ALB) region-wide conference call (June 11); with MS. KATHERINE DUGAS and MS. LISA ESPOSITO, received training in the Emergency Response Information System (ERIS) for recording ALB inquiries (June 18); participated in an ALB region-wide conference call (June 25); conducted an ALB, host trees, and Emerald ash borer training session for arborists and nursery workers in Waterbury (40 attendees) (June 25); talked about ALB to Southern Connecticut State University 5<sup>th</sup> year education students at CAES in New Haven (15 attendees) (June 30); gave a talk on "Houseplants and ALB" to the Portland Garden Club in Portland (15 attendees) (July 1); conducted an introductory meeting with Norwich town officials and Master Gardeners about the ALB survey program in Norwich (20 attendees) (July 7); staffed an ALB CAES booth at the summer meeting of the Connecticut Tree Protective Association in Farmington (400 people) (July 16); conducted an introductory meeting with Torrington town officials and Master Gardeners about the ALB survey program in Torrington (20 attendees) (July 29); talked about ALB on the Len & Lisa Garden Talk radio show on WTIC 1080 AM (August 1); gave a talk on the ALB and did an invasive plant walk at the Sharon Audubon Festival in Sharon (150 attendees) (August 8); gave an introduction to ALB at a town-wide meeting in Norwich (12 attendees) (August 12) and in Torrington (4 attendees) (August 18); gave a talk on the ALB at Mystic Seaport's Garden Days in Mystic (8 attendees) (August 22); conducted an ALB detection activity in the Connecticut Nursery and Landscape Discovery and Education gardens, gave a talk on the ALB outreach program, and gave an insect update at the Nursery and Landscape Research Tour in Windsor (12 attendees) (September 10); staffed an ALB display table at Enfield Family Days in Enfield (September 20); organized and ran an evaluation meeting of the Northeast Forest Pest Survey and Outreach Program Committee at the Valley Laboratory of The Connecticut Agricultural Experiment Station in Windsor (October 13); managed delegate registrations and pesticide recertification credits with MS. KATHERINE DUGAS, MS. JOAN BRAVO, and DR. GALE RIDGE, at the Connecticut Bed Bug Forum in Jones Auditorium (180 attendees) (October 15); gave a talk on "Insects: The good, the bad, the beautiful and the just plain ugly" and the ALB to the Redding Garden Club in Redding (30 attendees) (October 19); gave a talk on the ALB to the Connecticut Nursery and Landscape Association's Nursery Professional Course in Southington (50 students) (October 20); staffed a display table of ALB and Emerald ash borer literature at a meeting of the Wallingford Conservation Commission in Wallingford (35 attendees) (October 21); and gave a talk and staffed a display table on the ALB and Roadsides at the Connecticut Urban Forest Council meeting in Wallingford (230 attendees) (October 22), and a publication along with DR. ROBERT MARRA and DR. CLAIRE RUTLEDGE, published an article entitled "Invasive Species and Connecticut's Forests" in the Winter 2009 issue of Connecticut Woodlands magazine.

**DR. CHRIS T. MAIER** was interviewed about the emerald ash borer by John Burgesson of the Connecticut Post (October 1); and briefly discussed and displayed autumnal flower flies, and included polymorphic mimics, at a meeting of the Connecticut Entomological Society at Yale University (October 16).

**DR. GALE E. RIDGE** in June was interviewed by the Hartford Courant on how citizens might protect themselves from bed bugs and the Danbury New Times on the care of elm trees with a discussion on heritage elms. She also identified an exotic Bostrichidae beetle that had been accidentally imported from South Africa. During the fall of 2007, a citizen from Greenwich had traveled to South Africa and bought

four animal statues as gifts at a street market. Eighteen months later, a large adult beetle emerged from the haunch of the zebra (see photo below). It was identified as the Auger beetle *Bostrychoplites cornutus* (Oliver). The insect was put into the CAES insect collection.



Auger beetle *Bostrychoplites cornutus* (Oliver). CAES collection.

In July, The Danbury Times interviewed Dr. Ridge about insects and how a wet spring might affect their life cycles. She also had a major interview on bed bugs again with the Hartford Courant. In mid-July, Dr. Ridge was one of the speakers at the Hartford bed bugs forum, held at the Hartford Public Library to educate the general public on bed bugs (200 attendees). In late July, Dr. Ridge's summer assistant, Clifford Bond, had a tattoo done on his right leg of one of Dr. Ridge's mosquito illustrations. It was selected from the identification guide to the mosquitoes of Connecticut written by DR. THEODORE ANDREADIS et al., and illustrated by Dr. Ridge. Dr. Ridge submitted a grant application to the NSF for a two-year program to restore the CAES insect collection. In August, The Stamford Advocate, Connecticut Post, and News 12 Television interviewed Dr. Ridge about a Stamford Police Department situation that Dr. Stafford and Dr. Ridge had been involved in regarding ticks, bird mites, and dust mites. Police officers had complained about being "bitten" by these arthropods. DR. KIRBY STAFFORD and Dr. Ridge had visited Stamford Police Department headquarters, collected samples, and met with officers and staff. In August, Dr. Ridge also identified a new insect species introduced on Rosemary to Connecticut called the Ligurian/Mint leafhopper Eupteryx decemnotata Rey (Cicadellidae) (new state record). It was accidentally introduced to the United States from Europe. In September, WTIC Radio interviewed Dr. Ridge about yellowjackets that colonize homes and how citizens might manage them. Dr. Carl Baum of the Department of Toxicology, Yale New Haven Hospital, worked with Dr. Ridge photographing medically important insects and arachnids from the CAES insect collection for a national Pediatrician's medical examination. Dr. Ridge presented a workshop on the ecology and morphology of insects at the Connecticut Folk Festival and Green Expo in New Haven and lectured to approximately 500 delegates at the Connecticut Pest Control Association conference on flies, their influence on the history of man, on religion, culture, and medicine. October 20th saw the biggest migration in years of the multi-colored Asian lady beetle Harmonia axyridis (Pallas) out of Connecticut forests onto buildings across Connecticut. The fine weather which had been preceded by a severe northeaster storm caused the migration. Dr. Ridge was interviewed by NBC News Television, Channel 8 News, and WSHU Public Radio about the migration. A full house of delegates attended the Connecticut Bed Bug Forum held in Jones Auditorium (180 attendees) (October 15). Representatives from the hospitality industry, higher education, homeless shelters, property management associations, pest control operators, healthy homes agencies, visiting nurse associations, legal entities, and health departments attended. Dr. Ridge was interviewed by WNPR Radio, Channel 3 News TV, the New Haven Register, and Independent News about the forum. Dr. Ridge was invited to join a national bed bug working group of experts on bed bugs chaired by Kurt Saltzmann, Purdue University. Dr. Ridge identified a new insect to Connecticut called the Hibiscus leaf cat *Anomis commoda* (new state record).

**DR. VICTORIA SMITH** presented a talk to the meeting of the Middlesex County Farm Bureau, held at Angelico's Lakehouse in East Hampton, titled "ALB: A Threat to Our Forests" (45 participants) (October 14); participated in the annual meeting of the North American Plant Protection Association, held at Swissotel in Chicago, IL, with discussions on chrysanthemum white rust, *Phytophthora ramorum*, and

invasive pests (215 participants) (October 19-22); participated in the annual meeting of the USFS Forest Cooperators, held at the Durham (New Hampshire) Field Office, and gave a presentation of data on forest health monitoring and aerial survey (25 participants) (October 27-28).

DR. KIRBY C. STAFFORD III participated in a conference call on the Northeast Forest Pest Outreach and Survey Project (October 1); spoke on ticks, deer, and Lyme disease at the Newtown Public Library to the Tick-Borne Disease Action Committee (16 attendees) (October 7); participated in a Results Based Accountability training session in Hartford (October 8); participated in a CSREES web-conference on upcoming planned changes to the CRIS reporting system to a web-based system (October 8); participated in an ALB program evaluation meeting at the Valley Laboratory in Windsor (October 13); welcomed attendees to the Connecticut Bed Bug Forum held in Jones Auditorium (180 attendees) (October 15); participated in a Connecticut teleconference on H1N1 status and preparedness (October 16); was interviewed about Lyme disease by Abigail Dumes, a Yale graduate student (October 19); with Drs. Magnarelli, Douglas and Andreadis, and Mr. Last, met with Thomas McKenna, Connecticut Science Center, in the Board Room to discuss possible contributions the Station could make to the Center (October 19); provided a brief update on the Station and ALB at the New Haven County Farm Bureau annual meeting in Hamden, CT (40 attendees) (October 20); attended the annual meeting of the Southwest Conservation District in Milford where DR. KIMBERLY STONER received an award as an outstanding partner in support of natural resource conservation (October 26); and participated in the public hearing on the adoption of proposed regulations on the ALB and Emerald ash borer in Hartford (October 28).

DR. KIMBERLY A. STONER participated in a meeting on modifying the ban on pesticides at day care centers and K-8 schools at the Department of Environmental Protection (18 attendees) (October 8); organized and chaired a meeting funded by the Northeast Experiment Station Directors Research Association to plan an improved proposal for research on "Integrating Pest Management and Pollinator Protection" in the Northeast at the Valley Laboratory (7 attendees) (October 16); presided over the annual meeting of the Friends of Boulder Knoll, a community farming organization in Cheshire, at Elim Park in Cheshire (15 attendees) (October 22); October 24, the International Day of Climate Action: led a coalition of organizations to organize two events highlighting the importance of getting the concentration of carbon dioxide in the atmosphere below 350 parts per million to prevent global climate change. One event, on the New Haven Green, drew 300 people to listen to speakers from CT NOFA, Connecticut Fund for the Environment, and the New Haven/Leon Sister City Project and resulted in an aerial photo of people spelling out "3-5-0" on the Green. The other event, at the Friends Meetinghouse in New Haven, drew 50 people to listen to speakers from the New Haven Transition Initiative on the subjects of climate change, peak oil, and developing resilience in the local community to deal with these crises (October 24); coorganized, along with Bill Duesing of CT NOFA, the 4<sup>th</sup> Annual Community Farming Conference and made a presentation as part of a panel describing the process of starting a community farm, held in Jones Auditorium (40 attendees); and also assisted with a tour of Boulder Knoll Community Farm in Cheshire (October 31).

MR. PETER TRENCHARD presented an ALB Survey and Regulatory overview at the Train the Trainer Workshop at the Valley Lab in Windsor (May 19); participated in the CNLA/CTPA ALB "What You Need to Know" workshop at Naugatuck Valley Community College in Waterbury (June 25); attended the CNLA Summer Field Day at Imperial Nurseries in Granby (July 16); presented an ALB Survey and Regulatory overview at the Torrington town-wide meeting at UCONN in Torrington (August 18); staffed the Station exhibit at Celebrating Agriculture and presented material about ALB at the Woodstock Fair Grounds in Woodstock (September 26); spoke about ALB survey activities at the ALB program evaluation meeting at the Valley Laboratory in Windsor (October 13); and displayed honey bees and beekeeping equipment and spoke about honey bees to elementary school children at Farm City 2009 at Greenbacker Farm in Durham (approximately 100 attendees) (October 20).

#### **Environmental Sciences**

**DR. THEODORE ANDREADIS** attended a reception at the Yale Peabody Museum of Natural History for the opening of a new exhibit entitled *Disease Detectives and Solving the Puzzle: Lyme Disease, West Nile Virus and You* which included research information and materials provided by CAES (October 5); met

with T J McKenna a Gallery Scientist from the Connecticut Science Center to discuss ideas for CAES's participation in an exhibit and gave a tour of the mosquito and biosafety level 3 laboratories (October 10); presented an Epidemiology of Microbial Diseases Seminar entitled: West Nile virus: a ten-year perspective on an emerging mosquito-borne disease in the western hemisphere at the Yale School of Public Health (30 attendees) (October 22); and presented a lecture in a course on "Ecology and epidemiology of Vector-borne and Zoonotic Diseases" entitled: Connecticut's response to West Nile virus: surveillance and control to a class of graduate students at Yale University (20 attendees) (October 27).

**MR. GREGORY BUGBEE** spoke at the North American Lake Management Society Conference in Hartford on *Connecticut's Invasive Aquatic Plant Program: A Model for Other States.*" (Approximately 100 attendees) (October 29).

**DR. JOSEPH PIGNATELLO** presented a Keynote talk entitled, *Interaction of anthropogenic organic chemicals with organic matter in natural particles* at an "International Symposium of Molecular Environmental Soil Science at the Interfaces in the Earth's Critical Zone" held at Zheijing University in Hangzhou, China (October 10-14).

**MR. JOHN SHEPARD** presented a display on mosquitoes and Eastern Equine Encephalitis and was interviewed by Sarah L. Hamby of the Reminder News during the Open House at the Griswold Research Center (14 attendees) (October 3).

**DR. CHARLES VOSSBRINCK** chaired a scientific session on "Microsporidial Genomics" and presented an invited talk entitled, *The origin of* Nosema bombycis *in the silk moth* Bombyx mori: *a phylogenetic approach* at "The International Symposium on *Bombyx mori*: Functional Genomics and Modern Silk Road" held in Chongqing, China (October 22-24).

#### **Forestry and Horticulture**

**DR. JEFFREY WARD** interviewed by Ed Stannard of the New Haven Register about fall colors (October 2); along with **DR. SCOTT WILLIAMS**, met with Matt Levy, Stewardship Coordinator for Eastern New York - The Nature Conservancy, to discuss invasive shrub control in Bedford, NY (October 2); interviewed by Amanda Cuda of the Connecticut Post about bumper acorn crop this year (October 6); spoke on woody plant identification for Gardening Study School in New Haven (28 attendees) (October 6); participated in a meeting of Connecticut Forestlands Council in Middlefield (October 7); spoke on the history of Connecticut's forest for the Hill and Dale Garden Club in Glastonbury (35 attendees) (October 8); spoke on methods to controlling invasive species to managers at the Department of Environmental Protection, Burlington, CT (12 attendees) (October 19); and attended the Connecticut Urban Forest Council's 21st Annual Conference in Wallingford (October 22).

**DR. ABIGAIL MAYNARD** gave a tour of Lockwood Farm to Hamden Hall students from Pre-K, kindergarten, and 3rd grade (55 students, 5 teachers, and 5 parents) (October 20) and visited John Holbrook's farm in Bethel and discussed the new crops program (October 28).

**DR.** WILLIAM NAIL consulted with vineyard staff at Chamard Vineyards in Clinton to discuss disease control and future management programs (October 16).

**DR. SCOTT WILLIAMS** gave a talk on the relationship of Japanese barberry, blacklegged ticks, and Lyme disease prevalence to managers at the Department of Environmental Protection, Burlington, CT (12 attendees) (October 19) and gave an invited lecture titled "Roadside Habitats and Deer-Vehicle Collisions" at the Connecticut Urban Forest Council Conference, Wallingford, CT (40 attendees) (October 22).

**MR. JOSEPH P. BARSKY** represented the Station at a booth at the Brooksvale Fall Festival in Hamden (300 attendees) (October 17) and spoke on "Why are trees important?" to Kindergarten students from Bear Path School in Hamden (59 students, 20 adults) (October 23).

### **Plant Pathology and Ecology**

**DR. SANDRA L. ANAGNOSTAKIS** had a poster exhibit on chestnut research at the first Plant Science Day at Griswold Research Farm (14 adult and 4 youth attendees) (October 3); met in Windsor with members of the Fairfield Garden Club who wanted to see hybrid chestnut trees and discuss a chestnut project for the 100<sup>th</sup> anniversary of the founding of Garden Clubs of America (4 adult attendees) (October 6); met at Lockwood Farm with a chestnut grower from Vermont to discuss chestnut cultivars and show him trees with different nut characteristics (October 8); gave a talk on "Planting chestnuts in the forest" at the New York Botanical Garden in New York, NY (25 adult attendees) (October 24); and with **MS. PAMELA SLETTEN**, went to the Greentree Foundation in Manhasset, Long Island, and met with the property managers to discuss the joint projects of a forest planting (begun spring 2009) and a chestnut arboretum (to be planted in the future) (7 adult attendees) (October 27).

**DR. SHARON M. DOUGLAS** gave a presentation entitled "Common diseases of greenhouse crops" at the CGGA Pesticides and Roast Beef Workshop held in Jones Auditorium (84 adult attendees) (October 13); participated in the monthly meeting of the CTPA Board of Directors (12 adult attendees) (October 13); met with Thomas McKenna, scientist at the Connecticut Science Center in Hartford, to discuss how Experiment Station scientists can contribute to hands-on activities at the Center about ticks, mosquitoes, Sudden Wetland Dieback, and ALB (October 19); and attended the annual conference of the Connecticut Urban Forest Council (125 adult attendees) (October 22).

**DR. WADE H. ELMER** was interviewed about the pumpkin crop by Ed Stannard of the New Haven Register (October 2) and was interviewed by Thomas McKenna, scientist at the Connecticut Science Center in Hartford, about potential projects for students (October 19).

**DR. FRANCIS J. FERRANDINO** attended the first Plant Science Day at Griswold Research Farm and presented posters describing the Southern New England Grape Information Network, which is a consortium of scientists and technicians from CAES, UCONN, UMASS, and URI. The purpose of this network is to use data from vineyard-based weather stations to predict disease risk and pass this information on to growers (14 adult and 4 youth attendees) (October 3).

**DR. ROBERT E. MARRA** presented a talk titled "Proposing a new species of *Fusarium*: *F. 'aestuarinum*," a pathogen of *Spartina alterniflora* associated with wetland dieback in eastern marshes" (coauthored with **DR. WADE H. ELMER**) at the annual meeting of the Northeastern Division of the American Phytopathological Society held in Quebec City, Quebec, Canada (60 adult attendees) (October 28-30).

# **Valley Laboratory**

**DR. JOHN AHRENS** attended a meeting of the Board of Directors of the Connecticut Christmas Tree Growers Association as an official advisor to the group (September 8); attended the Ninth International Christmas Tree Research and Extension Conference in Corvallis, OR and Puyallup, WA to present 'Postemergence control of weeds in actively growing conifers' to 50 attendees from Canada, Europe, and the United States (September 14 to 18); and attended an IR-4 ornamental workshop to set future research priorities necessary to obtain federal herbicide registrations of value to ornamental nurseries, landscapers and the Christmas tree industry (October 7-8).

**DR. RICHARD COWLES** presented "Optimizing systemic insecticides to control hemlock woolly adelgid," at the Griswold Research Farm Field Day (12 attendees) (October 3); "Activities at The Connecticut Agricultural Experiment Station," at the Windsor Historical Society meeting (12 attendees) (October 7); and "Black vine weevil, white grubs, and lace bugs," to the Massachusetts Chapter of the Rhododendron Society, Waltham, MA (30 attendees) (October 21); presented a guest lecture on "Pollinators" at Eastern Connecticut State University (11 attendees) (October 16); "Bed bugs: Slick ways to evict our coevolutionary bedfellows" for Eastern Connecticut State University Biology Department's Seminar series (50 attendees) (October 23); and participated in an ad hoc DEP workgroup regarding pesticides applied to school grounds (October 8).

**DR. JAMES A. LAMONDIA** taught a class on identification, biology and management of tree diseases to students in the Connecticut Tree Protective Association's Arboriculture 101 class in New Haven (40 persons) (October 7); spoke about research results at the annual meeting of the Northeast Regional Multistate Nematology Technical Committee (NE-1019) held in Pine Mountain Georgia (12 attendees) (October 21-23); and attended the Northeast Division Meeting of the American Phytopathological Society to serve as President and to present 'Evaluation of strawberry breeding lines for tolerance to black root rot and black vine weevil feeding' in Quebec City (55 attendees) (October 27-30).

**MS. DIANE RIDDLE** met with Manchester Community College student Maureen Bilotta to review soil test methods for an Earth Science class project (October 16).

**DR. HUGH SMITH** attended a workshop on Nutrition Management for Greenhouse Crops sponsored by the University of Massachusetts and the University of Connecticut in Sturbridge MA (October 20).

#### **Journal Articles Approved October 2009**

- **Elmer, Wade H.** Influence of biochar and earthworms on mycorrhizal colonization, plant growth, and Fusarium crown and root rot of asparagus. Acta Horticulturae
- **Li, De-Wei.** *Stachybotrys thaxterum* sp. nov. and a new combination for *S. cannae* in Periconiella. Mycologia
- **Magnarelli, Louis A., Scott C. Williams,** and E. Fikrig. Seasonal Prevalence of Serum Antibodies to Whole Cell and Recombinant Antigens of *Borrelia burgdorferi* and *Anaplasma phagocytophilum* in White-tailed Deer in Connecticut. Journal of Wildlife Diseases
- **Musante, Craig and MaryJane Incorvia Mattina.** Analysis of Fertilizer Products Sold in Connecticut 2008. CAES Technical Report

#### **Grant Awards October 2009**

**DR. HUGH SMITH** received \$2,000 from the J. Frank Schmidt Family Charitable Foundation for research on the management of fungus gnats and shore flies in nurseries.

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).