Station News

The Connecticut Agricultural Experiment Station
Volume 6 Issue 3 March 2016

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.

CAES

The Connecticut Agricultural Experiment Station

Putting Science to Work for Society since 1875

This Issue

ADMINISTRATION

DR. THEODORE ANDREADIS was interviewed about the Zika virus outbreak in Latin America by Andrew Pollack, NY Times (February 1); was interviewed about the risk of Zika virus to Connecticut by Mary Ellen Godin, Record Journal (February 4); was interviewed about the risk of Zika virus to Connecticut by Judy Bensen, The Day (February 8); testified before the Appropriations Committee of the General Assembly on the impact of Governor Malloy's proposed FY 2017 budget on the Experiment Station (February 10); participated in a press conference with Governor Malloy and Department of Public Health Commissioner, Pino to announce Connecticut's "Response and Surveillance Plan for Zika Virus" (February 11); with **DR. JEFFERY WARD** and **DR. BLAIRE STEVEN** met with Dr. Peter Crane, Dean of the Yale School of Forestry to discuss formal collaborations and adjunct faculty appointments for CAES scientists (February 16); was interviewed about the impact of the proposed budget reductions on the State Beekeeper positon by Laraine Weschler, Waterbury Republican American (February 17); and hosted State Senator, Martin Looney and Ms. Lisa Bassani, Project Director, Working Lands Alliance and gave a tour of the Station (February 25).

ANALYTICAL CHEMISTRY

DR. JASON C. WHITE along with **MR. MICHAEL CAVADINI, MS. TERRI ARSENAULT, MS. KITTIPATH P.-RIVEROS** attended the 5th annual Manufactured Food Regulatory Program Alliance (MFRPS) meeting and the 2nd Governmental Food and Feed Laboratories Accreditation in Louisville KY (February 1-4); spoke by phone with Dr. Nick Geitner of the Duke University Center for the Environmental Implications of Nanotechnology (CEINT) to discuss collaborative work on molecular modeling of nanoparticle/pesticide interactions (February 9); participated in a National Information Management & Support System (NIMSS) training webinar (February 9); attended a CHRO hearing on the CAES Affirmative Action Plan at the Legislative Office Building in Hartford (February 10); participated in at FDA FERN Northeast Region teleconference call (February 11); along with **DR. BRIAN EITZER, MR. MICHAEL CAVADINI, MR. JOSEPH HAWTHORNE, DR. WALTER KROL, MR. CRAIG MUSANTE, DR. CHRISTINA ROBB, MS. KITTY PRAPAYOTIN-RIVEROS AND MS. TERRI ARSENAULT** participated in the monthly FDA FERN cCAP teleconference call (February 11); spoke by phone with Dr. John Fontana, who is the Laboratory Director of the Oregon Department of Public Health (February 12); along with **DR. BRIAN EITZER, MR. MICHAEL CAVADINI, MR. JOSEPH HAWTHORNE, DR. WALTER KROL, MR. CRAIG MUSANTE, DR. CHRISTINA ROBB, DR. ALIA SERVIN, MS. KITTY PRAPAYOTIN-RIVEROS, MR. JOHN RANCIATO, AND MS. TERRI ARSENAULT** hosted Mr. Ken Stoub of Group Seven Laboratory Services who conducted an audit of the Analytical Chemistry MFRPS ISO Accreditation Program (February 16-18); participated in a Skype call with Professor Mathews Paret of the University of Florida and discussed collaborative projects on using nanoscale micronutrients to suppress crop disease (February 18); participated by Skype in the Ph.D. Proposal defense of Ms. Wenjun Cai of the SUNY College of Environmental Science and Forestry (ESF)(February 19); along with **DR. WALTER KROL** participated in a CT DEEP led conference call of the Lobster Pesticide Study 2014 Steering Committee and discussed the conclusion of the year-long study (February 23); along with **DR. LUCA PAGANO** participated in a Skype call with Dr. Fabienne Schwab of the European Centre for Research and Education in Environmental Geosciences Center (CEREGE) to discuss ongoing collaborative work (February 24); hosted a tour of the Analytical Chemistry Department Laboratories for CT Senate President Martin Looney (February 25); participated in a conference call with Doug Heitkemper and Mike Farrow of the FDA to discuss the technical agenda for the upcoming FDA FERN cCAP annual meeting (February 26); and participated in a Duke University CEINT workshop entitled "Engineered nano testing media harmonization" (February 29-March 2).

DR. BRIAN EITZER was a participant in the conference call of the Organizing Committee of the North American Chemical Residue Workshop (February 11)

ENTOMOLOGY

DR. KIRBY C. STAFFORD III presented a talk titled "Integrated Tick Management: A Review and Update" at the New York State Tick-Borne Disease Research Workshop II in Latham, NY (95 attendees) (February 3-4); participated in Tick IPM Working Group conference call (February 10); participated in conference calls with U.S. Biologic, Inc. on the testing of the rodent-targeted Lyme vaccine trial (February 18); and presented a talk on Integrated Tick Management at the NOFA Organic Land Care Course at Three Rivers Community College in Norwich, CT (36 attendees) (February 23).

DR. GALE E. RIDGE had her identification of Obscure scale *Pseudococcus viburni* Signoret, obtained from a nursery in Windham CT, confirmed by USDA ARS SEL as a new state record (February 3); spoke to the Gilead Community Services Group at Middlesex Community College in Middletown about bed bugs (60 attendees) (February 24); as a member of the statewide State Health Improvement Plan 2020 (SHIP) group, reviewed with representatives from code agencies, towns, cities, and State law the international property maintenance code, with the goal of adopting a statewide property maintenance code which would include clauses for bed bug management (February 29).

DR. CLAIRE E. RUTLEDGE attended the monthly board meeting of the Connecticut Tree Protective Association. Wallingford, CT (February 9); taught "Insects that Attack Trees" for the class Arboriculture 101, presented by the Connecticut Tree Protective Association. Wallingford, CT (45 attendees) (February 17); taught "Insects that Attack Trees" for the class Arboriculture, presented by Bartlett Arboretum. Stamford, CT (12 attendees) (February 25); and presented the talk ' Emerald Ash Borer in New England' to the New England 2016 Plant Healthcare Seminar, Taunton, MA (55 attendees) (February 26).

DR. VICTORIA L. SMITH participated in a meeting of the Yale Biosafety Committee in New Haven (20 participants) (February 18); participated in a tour of the Yale University Zika Mosquito containment facility at the Laboratory of Environmental and Public Health, New Haven (6 participants) (February 23); and participated in a meeting of the CT Nursery and Landscape Association Winter Symposium Planning Committee, held at the WB Young Building on the University of Connecticut campus (10 participants) (February 24).

DR. KIMBERLY A. STONER participated in a meeting of the Steering Committee for the New England Vegetable and Fruit Conference, Manchester, New Hampshire (28 participants) (February 2); gave a tour of the Bee Lab and spoke to Paul and Hillary Peruzzi (son and mother) about Paul's research project collecting and analyzing pollen from honey bee hives (February 5); interviewed by Theresa Sullivan Barger, freelance writer for New Haven Living and Hartford Living magazines about planting for pollinators (February 50); and hosted the conference "Successfully Establishing Plants for Pollinators" at Jones Auditorium. The day-long conference was presented twice due to high demand (59 and 64 attendees on February 25 and 64, respectively).

ENVIRONMENTAL SCIENCES

DR. JOSEPH PIGNATELLO hosted Dr. Lebelle Hicks, Board of Pesticides Control, Maine Department of Agriculture, Conservation and Forestry for discussions on the bioavailability of pesticides in coastal sediments toward lobsters (February 24).

DR. PHILIP ARMSTRONG was a guest lecturer speaking on "Dengue and Other Arboviral Diseases" for the course Principles of Infectious Diseases at the Yale School of Public Health (February 9) (20 students); spoke to local health department directors about the risks of, and surveillance for, Zika virus transmission in Connecticut with the Departments of Public Health and Environmental Protection and Energy (February 22) (40 Attendees); and was interviewed by News Channel 8 about the risks of mosquito-borne transmission of Zika virus in Connecticut (February 29).

DR. GOUDARZ MOLAEI was an invited attendee at a symposium on Bio-Control and organized a workshop, "*Planning and Execution of Research Projects, and Presentation and Publication of the Results"* at the Ferdowsi University of Mashhad, Iran (approximately 60 attendees) (February 3, 6, and 7); and met with CAES scientists and Yale faculty to discuss funding opportunities on the newly emerged Zika virus (February 26).

MR. JOHN SHEPARD participated in a Board of Directors meeting of the Northeastern Mosquito Control Association held at the Bristol County Mosquito Control Project, Attleboro, MA (8 attendees) (February 18).

FORESTRY AND HORTICULTURE

DR. JEFFREY WARD interviewed about pruning in winter by Kathy Connolly of the New London Day (February 5); CAES Seminar (February 17); attended the annual meeting of the Connecticut Chapter, Society of American Foresters in Middlefield (February 23); and interviewed about running bamboo control by John Burgeson of the Connecticut Post (February 29).

DR. ABIGAIL MAYNARD discussed New Crops research at the Borelli farm in North Haven (February 1); worked with teachers in setting up experimental garden at Bear Path School in Hamden (February 22); discussed New Crops research at the DeFrancesco farm in Northford (February 23); worked with teachers in setting up vegetable garden at Hamden Hall Country Day School (February 26); and discussed New Crops research at the Offinger farm in Wilton (February 29).

MR. JOSEPH P. BARSKY participated in triennial review of the Agriscience and Biotechnology program at Trumbull High School with the State Consulting Committee (February 11 and 24).

GRISWOLD RESEARCH CENTER

Mr. Robert Durgy attended as a member of the steering committee and ran the audio-visuals at the Connecticut Vegetable and Small Fruit Grower's Conference in Windsor (266 attendees) (January 11); taught a University of Connecticut Master Gardener Program class on vegetables in Stamford (24 attendees) (February 22), in Vernon (30 attendees) (March 4), in Torrington (22 attendees) (February 3), in Norwich (33 attendees) (February 16), and in New Haven (30 attendees) (February 25); taught Math Calculations and Calibration for Pesticide Applicator's Training in East Haven (26 attendees) (February 18) and in West Hartford (15 attendees) (March 1).

PLANT PATHOLOGY AND ECOLOGY

DR. WADE H. ELMER co-hosted a workshop with Dr. Rosa Raudales (UCONN) and Ms. Leanne Pundt (UCONN Extension Service) called "Hands-on Plant Nutrition Workshop" in Jones Auditorium (February 11) (25 attended); and along with **MS. LINDSAY PATRICK** and **DR. LINDSAY TRIPLETT** hosted a tour of Jenkins-Waggoner building for Senator Martin Looney.

DR. YONGHAO LI was interviewed by Matt Scott at FoxCT about impacts of mild winter on trees and shrubs (February 1), along with **MS. LINDSAY PATRICK** was visited by members of Anthropocene Landscapers Guild led by Mr. Gerald Posner to discuss twilight tours (February 2); and presented a talk "IPM: An Eco-Friendly Approach to Disease Control " in the UConn Bedding Plants Program for Greenhouse Growers in Torrington, CT (February 23) (44 Attendees) and again in Vernon, CT (February 25) (30 Attendees).

DR. ROBERT MARRA participated in a conference call with executive committee the Northeastern Division of American Phytopathology Society (February 25).

MS. LINDSAY PATRICK attended and staffed the CAES information booth at the Connecticut Grounds Keepers Association 2016 Turf & Landscape Conference in Cromwell, CT (February 17).

DR. QUAN ZENG was interviewed by the Northeastern IPM Center for their upcoming issues on the topic of pesticide resistance and provided an update on his current project with Dr. Dan Cooley on surveying the New England region for streptomycin resistance in the fire blight population (February 11th).

VALLEY LABORATORY

DR. RICHARD COWLES presented "The Dos and Don'ts of Neonicotinoids," to SavATree managers in Florham Park, NJ (150 attendees) (February 2); talked about "Cyclical, emerging, and disappearing pests" at the Connecticut Grounds Keepers Association (320 attendees) (March 17); and discussed "Behavioral control of pests: Are we there yet?" at Crop Production Services' educational seminar in Windsor Locks (85 participants) (February 29).

MS. ROSE HISKES taught invasive insects to Envirothon Teams at Goodwin College in East Hartford (143 attendees) (January 16); participated in the Connecticut Invasive Plant Working Group Symposium Planning Committee meeting in Windsor (January 19); participated in the Connecticut Invasive Plant Working Group Symposium Planning Committee meeting in Windsor (February 23); and with Lindsay Patrick, staffed a station booth at the Connecticut Grounds Keepers Association annual meeting in Cromwell (February 17).

DR. JAMES LAMONDIA participated in a steering committee meeting held at the Valley Lab to initiate the Connecticut Hop Growers Association (February 11); attended the 2016 University of Vermont Hops Conference in Colchester VT (February 18 and 19); welcomed growers to the Annual Tobacco Research Meeting and spoke about research topics and recent developments at the Station, spoke about research on management of tobacco pathogens including poty viruses, black shank, target spot and blue mold fungicide resistance, spoke about the CORESTA pesticide residue program and strategies to reduce pesticide residues in wrapper leaves, (February 23) (110 persons); and taught a class on identification, biology and management of tree diseases to students in the Connecticut Tree Protective Association's Arboriculture 101 class in Wallingford (35 persons) (February 24).

DR. DEWEI LI spoke about research and services at the Station and Valley Laboratory and summer employment opportunities at the Central Connecticut State University Biology Department Career Fair (55 persons) (February 29).

DR. KATJA MAURER was interviewed by Judy Benson from The Day about the UConn Extension Master gardener class "Growing Hops" (February 12); attended the hop conference in Colchester, VT (February 19); and attended the CAES Tobacco Research Meeting held in East Windsor, CT and presented "Growing hops in CT" (110 attendees) (February 23).

DEPARTMENTAL RESEARCH UPDATES FEBRUARY 2016

Ebbs S, Bradfield S, Kumar P, **White JC**, Ma X. 2016. Modeling dietary intake of zinc and copper from consumption of carrot (*Daucus carota*) exposed to metal oxide nanoparticles and metal ions. *Front. Plant. Sci*. 3:114-126.

Abstract:- The expanding production and use of engineered nanomaterials have raised concerns about the potential risk of those materials to food safety and human health. There is a particular need to understand the potential for nanomaterial exposure from food. In a prior study, the accumulation of Zn and Cu from ZnO or CuO, respectively, was examined in carrot (Daucus carota L.) grown in sand culture in comparison to accumulation from exposure to equivalent concentrations of ionic Zn2+ or Cu2+. The fresh weight Zn or Cu concentration data for peeled and unpeeled carrots were used to model dietary intake of each metal by seven age-mass classes from child to adult based on consumption of a single serving of carrot. Dietary intake was compared to the oral reference dose (oral Rfd) for chronic toxicity for Zn or Cu. Reverse dietary intake modeling was also conducted to estimate the number of servings of carrot, the mass of carrot consumed, or the tissue concentration of Zn or Cu that would cause the oral RfD to be exceeded upon consumption. The models indicated for Zn that dietary intake from consumption of ZnO-exposed unpeeled carrots was similar in all cases to that from Zn2+-exposed unpeeled carrots. Intake in excess of the oral RfD for Zn was projected only for ZnO- and Zn2+-exposed unpeeled carrots grown under the highest Zn concentration (500 mg kg DW-1) and consumed by children with <22 kg body weight. Projected dietary intake of Cu from CuO-exposed carrots was significantly lower than from Cu2+-exposed carrots and did not exceed the oral Rfd. The models further indicated that peeling carrots reduced the projected dietary intake by one to two orders of magnitude for both ENM- and ionic-treated carrots. The modelling effort here provided a conservative view of the potential dietary intake of Zn or Cu that might result from consumption of carrots exposed to nanomaterials and how peeling mitigated that dietary intake. The results also demonstrate the potential utility of dietary intake modeling for examining potential risks of nanomaterial exposure from agricultural foods.

Misencik MJ, Grubaugh ND, **Andreadis TG**, Ebel GD, and **Armstrong PM**. 2016. Isolation of a novel insect-specific flavivirus from *Culiseta melanura* in the northeastern United States. *Vector-Borne and Zoonotic Diseases* 16(3): 81-190.

Abstract: The genus *Flavivirus* includes a number of newly-recognized viruses that infect and replicate only within mosquitoes. To determine whether insect-specific flaviviruses (ISFs) may infect *Culiseta (Cs.) melanura* mosquitoes, we screened pools of field-collected mosquitoes for virus infection by reverse transcription-polymerase chain reaction (RT-PCR) targeting conserved regions of the NS5 gene. NS5 nucleotide sequences amplified from *Cs. melanura* pools were genetically similar to other ISFs and most closely matched Calbertado virus from *Culex tarsalis*, sharing 68.7% nucleotide and 76.1% amino acid sequence identity. The complete genome of one virus isolate was sequenced to reveal a primary open reading frame (ORF) encoding a viral polyprotein characteristic of the genus *Flavivirus*. Phylogenetic analysis showed that this virus represents a distinct evolutionary lineage that belongs to the classical ISF group. The virus was detected solely in *Cs. melanura* pools, occurred in sampled populations from Connecticut, New York, New Hampshire, and

stages of the mosquito. Maximum likelihood estimate infection rates (MLE-IR) were relatively stable in overwintering *Cs. melanura* larvae collected monthly from November 2012-May 2013 (MLE-IR=0.7-2.1/100 mosquitoes) and in host-seeking females collected weekly from June-October 2013 (MLE-IR=3.8-11.5/100 mosquitoes). Phylogenetic analysis of viral sequences revealed limited genetic variation that lacked obvious geographic structure among strains in the northeastern U.S. This new virus is provisionally named Culiseta flavivirus based on its host association with *Cs. melanura*.

Cao X, **Lattao C,** Schmidt-Rohr K, Mao J, **Pignatello JJ.** 2016. Investigation of sorbate-induced plasticization of Pahokee peat by solid-state NMR spectroscopy. *Journal of Soils Sediments*, online February 16; DOI 10.1007/s11368-016-1378-5.

Purpose Sorbate-induced swelling and plasticization of sorbent have been linked to sorption hysteresis of organic compounds in the natural organic matter of isolated humic acids, soils and coals. The above processes which have important implications for the fate and bioavailability of organic and inorganic contaminants, are mostly based on macroscopic changes and require molecular-level confirmation. This study aimed to investigate the presence or absence of sorbate-induced plasticization of Pahokee peat soil as a function of different sorbates.

Materials and methods The plasticization of Pahokee peat soil was studied upon sorption of different proton-free solutes including C_6D_6, $CDCl_3$, CCl_4, C_2Cl_4, CBr_4, C_6D_5Cl, and C_5D_5N, covering apolar and polar aromatic and aliphatic compounds. The swelling and plasticization of Pahokee peat soil was verified at the molecular level by ^1H wide-line and two-dimensional wide-line separation (2D WISE) NMR. The use of ^1H wide-line shapes is the traditional technique for studying molecular dynamics, but afflicted by the lack of spectral resolution of static ^1H spectra. 2D WISE, with one dimension displaying ^{13}C chemical shifts and the second showing ^1H wide-line shapes, is capable of providing information on molecular dynamics of specific functional groups.

Results and discussion Our results showed that the segments of Pahokee peat soil sorbed with C_6D_6, C_2Cl_4 and C_5D_5N became more mobile, but the changes due to the plasticization were small. Both C_6D_6 and C_5D_5N selectively increased the mobility of specific components: C_6D_6 of the nonpolar alkyl domains, and C_5D_5N of both the nonpolar alkyl domains and aromatic components.

Conclusions Some liquid solutes at high concentrations (2-5 wt%) are capable of slightly 'softening' natural organic matter of a soil, and this provides support for the hypothesis that natural organic matter in Pahokee peat soil is in a glassy state that is subject to plasticization.

Minton JA, Rapp M, Stoffer AJ, **Schultes NP,** Mourad GS. 2016. Heterologous complementation studies reveal the solute transport profiles of a two-member Nucleobase Cation Symporter 1 (NCS1) family of *Physcomitrella patens*. *Plant Physiol. & Biochem.* 100:12-17.

Abstract: As part of an evolution-function analysis, two Nucleobase Cation Symporter 1 (NCS1) from the moss *Physcomitrella patens* (PpNCS1A and PpNCS1B) are examined – the first such analysis of nucleobase transporters from early land plants. The solute specificity profiles for the moss NCS1 were determined through heterologous expression, growth and radiolabeled uptake experiments in *ncs1*-deficient *Saccharomyces cerevisiae*. Both PpNCS1A and 1B, share the same profiles as high affinity transporters of adenine and transport uracil, guanine, 8-azaguanine, 8-azaadenine, cytosine, 5-fluorocytosine, hypoxanthine, xanthine, and allantoin. Despite sharing the same solute specificity profile, PpNCS1A and PpNCS1B move nucleobase compounds with different efficiencies. The broad nucleobase transport profile of PpNCS1A and 1B differs from the recently-characterized Viridiplantae NCS1 in breadth, revealing a flexibility in solute interactions with NCS1 across plant evolution.

ARTICLES OF INTEREST FEBRUARY 2016

Annual Tobacco Research Meeting

One hundred and ten people attended the Connecticut Agricultural Experiment Station's annual Tobacco Research Meeting held at the East Windsor Scout Hall on February 23, 2016. Dr. James LaMondia welcomed growers and spoke about research topics and recent developments at the Station. The meeting addressed a wide variety of issues of concern to growers. James LaMondia spoke about the CORESTA pesticide residue program and strategies to reduce pesticide residues in wrapper leaves and research on management of tobacco pathogens including poty viruses, black shank, target spot and blue mold fungicide resistance. Thomas Rathier spoke about environmental changes, soils, microbial activity and tobacco. Katja Maurer spoke about hops as a new crop for Connecticut. Bill Leahey spoke about CT tobacco labeling and marketing and incorporation of the Connecticut-Massachusetts Tobacco Growers Association. Peter Kisselburgh discussed tobacco insurance program changes and Ross Eddy and Heather Baylis of the Farm Services Administration provided updates on FSA services to growers. Jane Canepa-Morrison, Michelle Salvas, Nathaniel Child and James Preste assisted with much of the behind the scenes work for the meeting. The meeting qualified for pesticide applicator re-certification credit in Connecticut and Massachusetts and 64 persons received credit.

JOURNAL ARTICLES APPROVED FEBRUARY 2016

Bradfield, S., P. Kumar, **Jason C. White**, and S. Ebbs. Metal oxide and ion accumulation in sweet potato: projected dietary intake from consumption. *Plant Physiology and Biochemistry*

Cheah, Carole A. S-J. Predicting hemlock woolly adelgid winter mortality in Connecticut forests by climate divisions. *Northeastern Naturalist*

Elmer, Wade H. and Margery Daughtrey. Diseases of cyclamen. In: *Handbook of Florists' Crops Diseases.* R. J. McGovern and W. H. Elmer (Eds.). Springer Publishing Co.

LaMondia, J. A. Susceptibility of *Buxus* accessions to the boxwood blight pathogen *Calonectria pseudonaviculata*. *Phytopathology* (Abstract)

Maynard, Abigail A. Performance of 13 specialty eggplant cultivars over three years in Connecticut. *HortTechnology*

McGovern, Robert J. and **Wade H. Elmer**. Florists' crops: global trends and disease impact. In: *Handbook of Florists' Crops Diseases.* R. J. McGovern and W. H. Elmer (Eds.). Springer Publishing Co.

Ward, Jeffrey S. Twenty-five year response of non-crop trees to partial release during pre-commercial crop tree management. *Forest Ecology and Management*

GRANTS RECEIVED FEBRUARY 2016

DR. QUAN ZENG's (PI), **DR. NEIL SCHULTES** and Dr. Dan Cooley from UMass are Co-PIs received approval on the proposal "Evaluate the efficacy of organic materials in controlling fire blight in the Northeastern United States" funded by the Northeastern IPM Center. ($49,988)

DR. QUAN ZENG obtained funding from BioSafe Inc to conduct trials combining their products with various biocontrol agents to control fire blight. Richard Cecarelli is a collaborator on this project. ($3,000)

DR. CAROLE CHEAH received funding from USDA-APHIS for 'Biological Control of Mile-a-minute Weed (*Persicaria perfoliata*) with *Rhinoncomimus latipes* ($22,792).

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Main Laboratories, New Haven

Lockwood Farm, Hamden

Griswold Research Center, Griswold

Valley Laboratory, Windsor

The Connecticut Agricultural Experiment Station

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