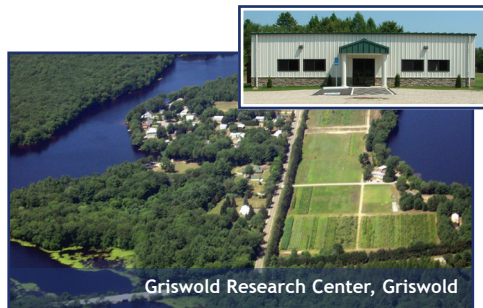


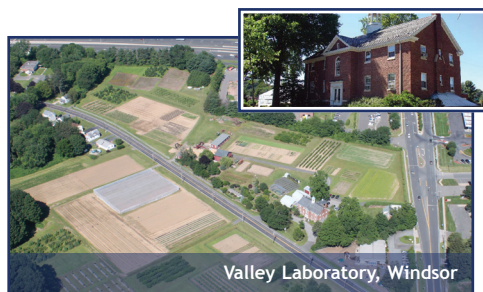
The Connecticut Agricultural Experiment Station is a state-supported scientific research institution dedicated to improving the food, health, environment, and well-being of Connecticut's residents since 1875.



Griswold Research Center, Griswold



Lockwood Farm, Hamden



Valley Laboratory, Windsor



Main Laboratories, New Haven

Visit the CAES

Visit our website for a full list of event dates and details:
<https://portal.ct.gov/caes>
 Associates Annual Meeting
 Plant Science Day
 CAES Seminar Series Videos and Podcasts
 CAES Lockwood Lectures
 Community Involvement

Visit outdoor exhibit gardens
 Nursery growers' gardens (plants discovered by Connecticut growers) in:

- New Haven
- Windsor
- Lockwood Farm in Hamden

Nursery growers' Plant Identification Garden at the:

- Valley Laboratory in Windsor

Bird and Butterfly Garden at:

- Lockwood Farm in Hamden

Research Farm

The Experiment Station's 75-acre research farm in Hamden, called Lockwood Farm, is open to the public during normal business hours. Parking is available inside the gate. Free admission.

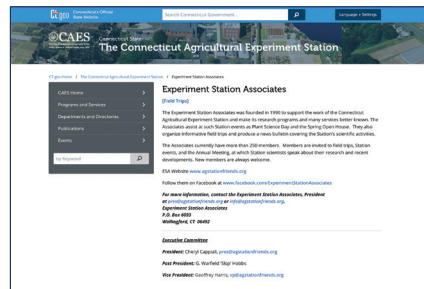


Experiment Station Associates, Inc.

% CAES
 123 Huntington St
 New Haven, CT 06511

The ESA is a proactive, volunteer group of Station supporters who assist in promoting the research work carried out at the CAES. All interested persons are welcome to join. Benefits include participation in field trips to Connecticut's leading agricultural businesses and publications highlighting the latest research developments at the Station. For more information, visit the Station website and click on the Experiment Station Associates.

Learn More About the CAES



<https://portal.ct.gov/caes>

The Experiment Station's web page is extensive, featuring information including tick submissions and testing; how to submit a soil sample, insect, or plant problem; mosquito surveillance program details and results; how to contact a scientist; factsheets, bulletins, and a comprehensive electronic library of historical and current research documents from our agency; a speakers list, and state weather data.

Social Media



Hours

Residents may call or visit the Experiment Station during normal business hours, 8:30 am - 4:30 pm, Monday through Friday, except state holidays.

Telephone Numbers

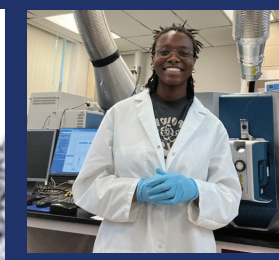
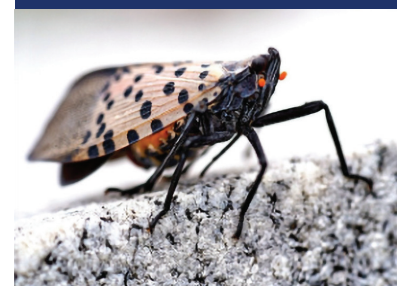
New Haven area:
 Plants: (203) 974-8601
 Insects: (203) 974-8600
 Soils: (203) 974-8521
 Other Inquiries: (203) 974-8500

Hartford area:
 All inquiries: (860) 683-4977

Statewide:
 Toll-free: (877) 855-2237

Locations

Main Laboratories (203) 974-8500
 123 Huntington St., New Haven, CT 06511-2016
 Valley Laboratory (860) 683-4977
 153 Cook Hill Road, Windsor, CT 06095-0248
 Lockwood Farm (203) 974-8618
 890 Evergreen Avenue, Hamden, CT 06518-2361
 Griswold Research Center (860) 376-0365
 190 Sheldon Road, Griswold, CT 06351-3627



CAES

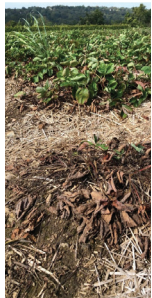
The Connecticut Agricultural Experiment Station
 Putting Science to Work for Society since 1875

Protecting Agriculture,
 Public Health, and
 the Environment

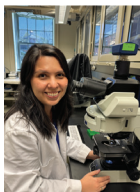
<https://portal.ct.gov/caes>

Agriculture

CAES scientists have identified aggressive fungal pathogens affecting strawberries that had been limited to the southern US. We are assessing the susceptibility of northern strawberry varieties to these diseases and conducting molecular analysis to understand how these fungi infect plants. With climate change dampening winters that protect against these pathogens, we are developing strategies for growers to safeguard strawberries and other crops in the future.



CAES is a leading institution in studying soilborne diseases and is dedicated to understanding pathogen interactions with their hosts and the environment. CAES scientists are uncovering the molecular interactions between plants, pathogenic fungi, and parasitic nematodes. This research will identify pathogens vulnerabilities and pave the way for highly effective, personalized disease control strategies.



CAES research in urban agriculture covers areas of vegetable production such as best management practices for cut-and-come-again, or repeated harvest, of greens. This includes controlled experiments and research with CT greens farmers and producers. Another focus area is managing nutrient leaching from farms, which contributes to problematic aquatic plant growth in CT waterways.



Did You Know?

The Experiment Station Associates (ESA) is a group that supports the work of CAES and its scientists. Every year they fund the Early Career Scientist Awards, given to a newly hired scientist so that they can hire a research assistant for the summer to help launch their research program. Learn more at www.agstationfriends.org

Health



With the legalization of adult use marijuana, a program for product analysis was established to assess cannabinoid content. CAES chemists quantify cannabinoids, mainly CBD and THC, in products received from the CT Department of Consumer Protection. CAES analysts have developed a high-performance liquid chromatography-UV detection method, which is now ISO 17025 accredited. A method based on gas chromatography-mass spectrometry is being developed. Multiple analytical platforms ensures that products comply with the stated labels for the different cannabinoids, helping to protect consumers.

Insecticides can efficiently control mosquito populations that transmit viruses which cause human and animal disease. Unfortunately, the use of adulticides has resulted in the development of insecticide resistance. CAES scientists are screening populations of the northern house mosquito, *Culex pipiens*, which transmits West Nile Virus, for mutations affecting insecticide susceptibility to monitor changes over time. This information will allow adjustments to vector control strategies for increased efficacy.



CAES scientists are working on best management practices for using less pesticides to manage ticks in backyard habitats. By treating deer and rodent hosts with ultra-low



concentrations of pesticide-treated bait, feeding ticks are killed and tick bites and tick-borne infections are reduced. We are experimenting with late fall spraying to kill

ticks and avoid harming beneficial insects and pollinators.

Did You Know?

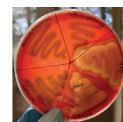
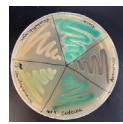
The CAES Soil Testing Laboratory in New Haven conducted a nutritional analysis on over 8,000 soil samples in 2023; the Windsor Laboratory analyzed an additional 4,000 samples.

Environment

Wildfire events are becoming more frequent and intense. Wildfire-generated pollution consists of fine particles named wildfire nanoparticles (WFPMs). WFPMs have been linked with health effects such as asthma and also transport contaminants such as polycyclic aromatic hydrocarbons (PAHs) that are carcinogenic. CAES Scientists are studying WFPMs deposition onto crops, which could be an uncharacterized exposure pathway with unknown effects on the plants, as well as the humans or animals that consume such plants.



The environmental microbiology program at CAES is researching the varying functions of microorganisms in the environment. Projects include studying microorganisms within the mosquito microbiome and the role they play in insecticide resistance and the spread of mosquito-borne pathogens, how soil microbes support plant growth and soil health, and how they adapt to a changing planet.



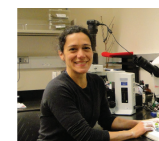
The CAES Office of Aquatic Invasive Species (OAIS) was established in 2022 in response to the widespread infestation of aquatic invasive species in numerous waterbodies throughout the state. Nearly 60 percent of the waterbodies surveyed in Connecticut have been found to host at least one aquatic invasive weed. Currently, OAIS is primarily focused on hydrilla (*Hydrilla verticillata*), which was first discovered in the Connecticut River in 2016 and has since spread to multiple waterbodies across the state. OAIS collaborates with governmental agencies, local stakeholders, and nonprofits to explore various management options aimed at mitigating the ecological and economic impact of hydrilla and other aquatic invasive species.



Did You Know?

The CAES Tick Testing Laboratory received 5,743 tick submissions in 2023, of which 4,122 were tested. Starting in 2023, ticks are tested for the pathogens for Lyme disease, babesiosis, anaplasmosis, Powassan virus, and *Borrelia miyamotoi* disease.

Public Service



The Plant Disease Information Office responds to over 4,000 inquiries a year from homeowners, growers, and professionals at no cost. The PDIO also is a member of the National Plant Diagnostic Network. Staff provide outreach through presentations, seminars, and workshops for the general public.

Since its appearance on American beech in 2012, beech leaf disease (BLD) has spread rapidly throughout the Northeast. CAES researchers first documented BLD in CT in 2019, and it is now found throughout the state. Large numbers of beech in CT and throughout New England are in steep decline due to this new disease. CAES scientists have been studying the spread and impact of BLD, the molecular infection mechanisms of the nematode pathogen, new control and eradication measures, and communicating their findings with the public. Although the long-term consequences of BLD on forest health are difficult to predict, CAES is committed to finding solutions to protect CT forests for generations to come.



The Insect Information Office (IIO) has served the citizens of CT for 130 years through expertise in identification, research, and public education. The office supports urban and rural communities, medicine, pest management, commercial businesses and government. The services provided by the office protects citizens by identifying pests and other arthropods, monitoring for exotic pests, presenting non-chemical management options, and supporting conservation of natural habitats and native species.



Did You Know?

The CAES has a bi-weekly seminar series and a bi-monthly podcast. All past episodes are available on our website for download at <https://youtube.com/user/CTAGEXPSTATION>