

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 in 2016

Join us at our 2016 events

**Associates Annual Meeting**—  
Thursday, April 21, 7 p.m.,  
Jones Auditorium, New Haven, CT

**Plant Science Day**—  
Wednesday, August 3, 10 a.m.,  
Lockwood Farm, Hamden, CT

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**

P.O. Box 6093, Wallingford, CT 06492

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 web site and click on the Experiment Station Associates.

Printing of this leaflet was funded by the Experiment Station Associates.

Learn More About the CAES



[www.ct.gov/caes](http://www.ct.gov/caes)

The Experiment Station's web page features an extensive electronic Plant Pest Handbook, arranged by plant name, which covers diseases, insects, and cultural and nematode problems of plants grown in Connecticut. During 2015, there were 178,114 visits for the entire web site.

**Hours**

Residents may call or visit the Experiment Station during normal business hours, 8:30am-4:30pm, 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



2016



CAES

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

Protecting Agriculture,  
Public Health, and  
the Environment

# Agriculture

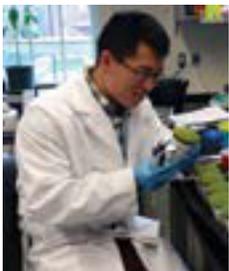
Scientists are investigating hops as a new crop to increase economic options for local growers in Connecticut and to add value to other local crops such as malt grains by evaluating disease resistance, and yield on high and low trellis systems.



CAES scientists play vital roles in state consumer food safety programs and the federal emergency response to potential terrorist events involving the food supply, by analyzing fresh and manufactured foods from domestic and international sources for pesticides, heavy metals, toxins, and poisons.



Station scientists are studying a new emerging disease of creeping bentgrass on Connecticut's golf courses. Using molecular tools called genomics, scientists are determining the pathogen's origin and identifying the source of the disease.



## Did You Know?

The Department of Analytical Chemistry has been testing consumer products and the food supply for adulteration/contamination for 140 years.

# Health



Lyme disease and other tick-borne illnesses continue to be major public health concerns in Connecticut. Station scientists are evaluating novel methods to control ticks and reduce the risk of infection around the home. Recent studies show they can reduce tick

abundance through the combined use of an insect fungus, *Metarhizium anisopliae*, and a rodent bait box that treats mice to kill feeding ticks, and reduce infection in feeding ticks with a new rodent-targeted Lyme disease vaccine bait.



Station scientists at the Center for Vector Biology & Zoonotic Diseases monitor mosquito-borne viruses that cause human and animal disease including eastern equine encephalitis and West Nile virus throughout the state every year from June through October. Over 190,000 mosquitoes are tested annually. They are also investigating the impact of global climate change on the ecology of these viruses and their mosquito hosts.



Molds develop in indoor environments following water damage and dampness and exposure can trigger allergies, cause infection, or aggravate existing medical conditions.

Research is being conducted to determine the composition and concentration of airborne molds in Connecticut and the incidence and distribution of indoor species. This research aides medical professionals in the diagnosis and evaluation of mold-related health risks in public school buildings and helps professionals mitigate indoor mold problems.

## Did You Know?

More than 50% of ticks submitted by CT residents to the Station's Tick Testing Laboratory in 2015 were infected with either *Borrelia burgdorferi* (Lyme Disease), *Babesia microti* (Babesiosis), or *Anaplasma phagocytophilum* (Anaplasmosis).

# Environment

Connecticut's lakes and ponds are experiencing an increase in algal blooms which appear to be driven by nutrient loading. Algae can produce toxins that are harmful to humans and animals. Station scientists are using genetic techniques, including DNA sequencing and genomics, to determine the potential of Connecticut's lakes to harbor these harmful algae and how to better predict blooms.



The trees and forests that frame our roadsides help define Connecticut's sense of place. To increase utility reliability during severe weather,

Station scientists are developing practical, cost-effective methods to foster healthy, storm-resistant roadside forests that combine individual tree care and forest management practices.

Station scientists are researching the behavior of organic chemicals in the environment and developing novel methods to remediate toxic organic pollutants in contaminated soil and water.



## Did You Know?

Connecticut is the fifth most forested state in the nation and has the highest urban forest cover of any state.

# Public Service



Testing soil samples for fertility and recommending methods for growing better plants are a continuing no-cost service for citizens of Connecticut. Testing is available at our laboratories in New Haven and Windsor and provides direct economic and environmental benefits by reducing unnecessary fertilizer treatments to lawns, plants, shrubs, and gardens reducing nitrogen runoff into soil and water.



CAES offers a "Tick Testing Program" that is available at no cost to Connecticut citizens. It includes testing for three different tick-transmitted diseases: Anaplasmosis,

Babesiosis, and Lyme disease. Over 3,000 ticks are submitted for identification and testing each year.

Station Inspectors work to safeguard agriculture and forests in Connecticut by inspecting and certifying agricultural products leaving and entering the state and by conducting annual surveys to detect exotic pests that threaten the health and productivity of Connecticut's forests.



Station staff are available in our New Haven and Windsor facilities to answer public inquiries and diagnose insect and plant disease problems for homeowners, businesses, and pest control professionals. CAES inquiry offices annually answer more than 30,000 questions about plants, insects, and soil from CT residents. Staff also provide outreach programs throughout the state through workshops, exhibits, lectures, and seminars.

## Did You Know?

CAES is Connecticut's official seed testing laboratory and works with the CT Department of Agriculture to test vegetable, turf, and crop seed every year.