



## *The Connecticut Agricultural Experiment Station*

123 HUNTINGTON STREET, P.O. BOX 1106, NEW HAVEN, CONNECTICUT 06504

*Putting Science to Work for Society  
Protecting Agriculture, Public Health, and the Environment*

*Founded 1875*

**To:** Senator Bye, Representative Walker, and other members of the Appropriations Committee

**From:** Dr. Theodore G. Andreadis, Director, The Connecticut Agricultural Experiment Station (CAES)

**Date:** February 10, 2016

Good evening. My name is Dr. Theodore Andreadis, Director of The Connecticut Agricultural Experiment Station. I want to thank you for the opportunity to speak this evening on behalf of the Agency. I have prepared a handout which summarizes our mission, details our current budget and identifies the specific initiatives we have previously taken to address the FY 2016 budget deficit (i.e., holdbacks and rescissions). I have also provided you with a listing and brief description of our statutory responsibilities and functions with regard to research, regulation and public service in our four core areas: agriculture, environment (including forestry), food safety and public health. Lastly, I have indicated the impact the Governor's proposed FY 2017 budget reductions are likely to have on the Agency.

I fully appreciate the challenging economic times in which we find ourselves as Connecticut has been stubbornly slow to recover from the recession. I also recognize the need for the State to live within its means and fully acknowledge that you have a very difficult task before you. However, I have an obligation to inform you that the proposed reductions in the Governor's FY 2017 budget for the Experiment Station, totaling nearly one million dollars, will devastate the Agency and severely impact our ability to meet our core statutory functions and provide the level of service that the citizens and businesses of the State have come to expect from us. All of our core programs, without exception, will be impacted. For example:

#### Public Health:

- (1) Our ability to monitor mosquitoes and test them for deadly infectious agents, such as West Nile virus, eastern equine encephalitis, and the newly emerging Zika virus which is ravaging Central and South America and is expected to show up in Connecticut this summer.
- (2) Our research programs to devise and evaluate methods for controlling ticks and preventing tick-borne diseases in the State, including Lyme disease, babesiosis and anaplasmosis, which are ever expanding.

#### Environment:

- (1) Our Invasive Aquatic Plant program in which we are developing methods to control algal blooms and slow the spread of invasive weeds that are choking our lakes and ponds.
- (2) Our studies to determine the cause of the devastating die off of coastal salt marshes which are Connecticut's most productive ecosystems.

#### Food Safety:

- (1) Our ability to provide timely analysis of foods and beverages for pesticides, toxic heavy metals and label accuracy that are submitted to us by the Departments of Consumer Protection, Energy and Environmental Protection and Public Health.
- (2) Our participation in the Federal Emergency Response Network in which we are one of only 14 certified laboratories in the country to respond to terrorist events involving the food supply.

#### Agriculture:

- (1) Our research programs to improve honey bee and native pollinator health, which is declining and is so essential to our State's agriculture.
- (2) Studies on wine grapes and hops for these two emerging agricultural industries in the State.

#### Regulation:

- (1) Our required registration, inspection and certification of State nurseries for pests and plant diseases, the largest agricultural industry in the State representing \$3 billion in economic output and supporting over 48,000 jobs in the State.
- (2) Surveys of towns and municipalities for destructive invasive insect pests and plant diseases that threaten food crops, trees and native flora.

We are a relatively small agency. We have always operated on a very lean budget and have never asked for more than we absolutely need. But I would like you to understand that 84% of our state budget allocation is tied up in personal services, with the remaining 16% dedicated to utilities and agency operating costs. Therefore, if these budget reductions are enacted, we will have no other option than to lay off a significant number of employees which would include as many as 6 PhD scientists, most of whom are newly hired and without any seniority, 3 technicians and our State apiary inspector, as we have no other sources of funding that can be used to support these individuals. Moreover, we would stand to lose more than \$700,000 in competitive federal grants that these new scientists have been successful in bringing to the Station to support and enhance their research programs.

Over the past two years we have hired some of the brightest and most talented young scientists in the country to refill positions lost to retirement and resignation. These scientists have brought new expertise in agricultural and environmental biotechnology, genomics and molecular biology to the Station and the State to keep us on the leading edge of discovery and innovation which has always been our mission. The loss of these highly trained and skilled scientists would be devastating to the Agency and diminish our status as one of the nation's finest research institutions. We would no longer be in a position to effectively compete for highly competitive federal grants and it would likely take us decades to recover.

For over 140 years, we have strived to achieve ground-breaking discoveries with an unbridled commitment to public service as we have advanced the frontiers of knowledge to solve the region's most challenging problems and improve the quality of life for citizens across the state. I respectfully request that you consider reinstatement of these funds so that we may continue to "Put Science to Work for Society". Thank you again for this opportunity and I would be more than happy to answer any questions you may have.

Please feel free to e-mail me at [theodore.andreadis@ct.gov](mailto:theodore.andreadis@ct.gov) or contact me by phone at (203) 974-8440.

Sincerely,

A handwritten signature in blue ink that reads "T. G. Andreadis". The signature is written in a cursive style with a large initial "T" and "G".

Theodore G. Andreadis, Ph.D.  
Director

**The Connecticut Agricultural Experiment Station**

***Mission Statement***

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, Protecting Agriculture, Public Health and the Environment”* a motto as relevant today as it was at our founding in 1875.

Statutory Authority: CGS 22-79 – 22-118

Core Functions: Research, Regulation, and Service

Core Areas: Agriculture, Food Safety, Environment, and Public Health



**The Connecticut Agricultural Experiment Station**

***Current Agency Budget Breakdown (FY 2016)***

<b>Funding Source</b>	<b>Budget (\$)</b>	<b>Percent</b>
General Fund	\$ 8,131,824	64%
Federal Grant Funds	\$ 4,084,214	32%
Industry/Other Grants	\$ 453,691	4%
<b>Total Budget</b>	<b>\$12,669,729</b>	<b>100%</b>



**The Connecticut Agricultural Experiment Station**

***Recent Agency Budget Initiatives  
(2015 Budget Holdbacks and Rescissions)***

- Consolidated Biochemistry & Genetics and Plant Pathology & Ecology Departments
- Eliminated One Managerial Position
- Eliminated Executive Secretary Position
- Reduced Overtime By 50%
- Requested Refill of Only Critical Core Function Positions
- Increased Federal Grant Funds by 10%



**The Connecticut Agricultural Experiment Station**

***Core Statutory Functions  
Regulatory (CGS Sec. 22-81-100)***

- Inspect nurseries for pests and plant disease and registration of dealers (> 600 nursery inspections and ~ 45,000 plants per year)
- Inspect apiaries and certify bee keepers (~ 900 apiaries per year)
- Survey towns for destructive insect pests of forests including the gypsy moth and emerald ash borer
- Conduct surveys for invasive insects and diseases that threaten food crops, trees and other native flora
- Conduct state-wide surveillance for mosquitoes and mosquito-borne diseases including eastern equine encephalitis and West Nile virus
- Analyze food products and fertilizers for other State agencies and the FDA



**The Connecticut Agricultural Experiment Station**

***Core Statutory Functions***

***Research (CGS 22-80)***

**AGRICULTURE**

- Conducting diagnostics to control insects, diseases, and invasive weeds that threaten our agriculture, landscapes and human health
- Evaluating new specialty crops and cultivars in our "New Crops for Connecticut" program for emerging markets
- Studying honey bee and native pollinator health
- Developing new management tools to control plant pathogens that attack nursery stock
- Conducting wine grape and hop cultivar trials for CT industries
- Studying plant disease mechanisms and modeling epidemics
- Evaluating methods to improve soil health with micronutrients, biochar and earthworms



**The Connecticut Agricultural Experiment Station**

***Core Statutory Functions***

***Research (CGS 22-80)***

**ENVIRONMENT**

- Evaluating methods to manage and control algal blooms and invasive aquatic plants in CT lakes in our "Invasive Aquatic Plant Program"
- Developing cost-effective protocols to foster healthy, storm resistant roadside forests
- Conducting surveys for new alien insects and evaluating biological control methods to limit the use of chemical insecticides
- Investigating soil microbial ecology and factors contributing to sudden vegetative dieback in coastal salt marshes
- Studying the impact of environmental stresses in the urban forest to increase public safety, and reduce costs and risks for municipalities
- Developing methods to remediate organic pollutants in contaminated soil and water



**The Connecticut Agricultural Experiment Station**

***Core Statutory Functions***

***Research (CGS 22-80)***

**FOOD SAFETY**

- CAES is the State's only agency that tests food and beverages for pesticides and toxic heavy metals
- Provide analyses of samples submitted by all other state agencies (CT DCP, DEEP, DoAg, DPH) (~3,000 per year)
  - Fertilizers and animal feeds for label accuracy and purity
  - Cultivated seaweed for heavy metals, pesticides, and PCBs
  - Foods for pesticides and adulteration (Market Basket Program)
  - Food-related consumer complaints
  - Alcohol products for DCP Division of Liquor Control
  - Pesticide misapplication on food and non-food crops
- USDA, FDA and CT DCP use CAES data for regulatory action
- Member of the US FDA Food Emergency Response Network (FERN) to respond to terrorist events involving the food supply (one of only 14 laboratories in the country)



**The Connecticut Agricultural Experiment Station**

***Core Statutory Functions***

***Research (CGS 22-80)***

**PUBLIC HEALTH**

- House the *Center for Vector Biology & Zoonotic Diseases* and a *Bio Safety Level 3 Containment Facility*
- Conduct state-wide surveillance to monitor mosquito-borne viruses that cause human and animal disease
- Studying the ecology of invasive exotic mosquitoes and epidemiology of mosquito-borne diseases
- Conducting integrated tick management studies to reduce the risk of tick-borne diseases
- Evaluating bed bug detection and control devices
- Studying the composition and impact of indoor airborne molds on human health



**The Connecticut Agricultural Experiment Station**

***Core Statutory Functions***

***Public Service (CGS 22-81)***

- **Plant Disease and Insect Diagnostic Offices:** Provide crucial diagnostic services for plant diseases and insect pests for homeowners, farmers, greenhouse growers, and pest control professionals (~20,000 inquiries per year)
- **Tick Testing Program:** Test ticks for 3 pathogens of human disease: Lyme disease, Babesiosis, and Anaplasmosis (~ 3,000 ticks per year)
- **Seed Testing:** Test vegetable, crop and lawn seed for compliance with federal seed law and truth in labeling. CAES is the official seed testing laboratory for the State of Connecticut (~ 300 seed packages tested per year)
- **Soil Testing:** Test and analyze soil samples for fertility (~ 11,000 samples per year)



**The Connecticut Agricultural Experiment Station**

***Impact of Budget Reductions***

- Layoff recently hired scientists and technicians
  - 6 Ph.D. Scientists (bacterial plant pathologist, environmental microbiologist, immunologist, plant molecular geneticist, plant physiologist, weed scientist)
  - 3 Technicians (Tick Testing Program, Plant Diagnostic Office, Invasive Aquatic Plant Program)
  - Bee Inspector
- Devastation to current research programs and projects
- Loss of federal grant dollars – Approximately \$700,000 tied to new scientists
- Lose ability to conduct research to prevent future public health outbreaks
- Eliminates vacancies for a: (1) food chemist, (2) plant virologist and (3) vector ecologist

