The Connecticut Agricultural Experiment Station

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

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Appropriations Committee Presentation
February 20, 2013

Good evening Senator Harp, Representative Walker, ranking members Senator Kane, Representative Miner, and other members of the Appropriations Committee. My name is Kirby C. Stafford, III. I am the Vice Director of the Connecticut Agricultural Experiment Station (CAES). I thank you for giving me this opportunity to give a brief presentation on some research on food safety, agriculture, forestry, and public health.

Food Safety: CT General Statutes [Sec. 22-81(c)] directs the CAES to conduct analyses as required by any state agency. We also assist the US Food and Drug Administration (FDA) in a national counter-terrorism program called the Food Emergency Response Network. The main objective is to protect our food and water supply by testing samples for toxic chemicals. Inspectors from the CT Department of Consumer Protection collected foods from farms and wholesale and retail establishments and requested analyses for pesticides, toxins, and specified poisons. Most foods are safe to consume. However, on occasion, there are violations. Excessive pesticide residues were detected in samples of domestic watermelon, alfalfa, and kale. Results were reported to state and federal officials for enforcement. In other work, some parents complained to the CT Department of Health that certain brands of infant formulas were causing illness. Samples of formula were analyzed at the CAES and found to be free of unwanted chemicals. Further, the fat content of the product matched the label claim. However, the emulsification of the fats in the formula was compromised, possibly due to exposure to low temperature during the manufacturing process. These findings resulted in the removal of the formula from the CT Women, Infants, and Children Program. There is a new study in collaboration with the US FDA to measure arsenic in rice.

Forestry: On July 16, 2012, the emerald ash borer (EAB) was detected in Prospect, CT by Experiment Station staff. Subsequently, other infestations of this destructive insect of ash trees were discovered in Beacon Falls, Bethany, Naugatuck, and Waterbury. A state quarantine was quickly placed on New Haven County, and weeks later, a federal quarantine was likewise imposed to regulate the movement of wood. Firewood regulations were passed by the CT Legislative Regulation Review Committee. Federal permits have been cleared for us to release parasitic wasps that only attack the egg and larval stages of EAB. Sites are currently being evaluated for parasite releases.

Agriculture: Research continues on finding an effective management program for the boxwood blight fungus in nurseries. Boxwood is a very popular ornamental plant. Stop sale notices were given to nurseries and garden centers that had infected plants. Owners of nurseries, garden centers, etc. destroyed infected plants by burial or incineration. A federal grant for about $240,000 has been awarded to CAES to

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develop control methods and to improve diagnostic capacity. At the request of the microbrewery industry in Connecticut, a new project on growing hops and malted grains has been started to enhance the flavor of craft beers and to support this industry.

Public Health: The summer of 2012 was hot. These conditions favored amplification of the West Nile virus in urban areas and production of a key mosquito species, *Culex pipiens*, that develops in catch basins. There were 21 human cases reported but no deaths. Experiment Station scientists and technicians monitor mosquito and encephalitis virus activity at 91 trapping sites in CT. West Nile viruses were detected in 234 pools and specimens representing nearly 190,000 mosquitoes. Eastern Equine Encephalitis virus remains a threat to our state residents. Human fatalities have been reported in nearby states. In other studies, Powassan virus and a related virus, called the Deer Tick Virus, were isolated from ticks. The latter infected the tick species associated with Lyme disease, human granulocytic anaplasmosis, and human babesiosis. Prevalence of human infections with Powassan virus appears to be rare, while that for the Deer Tick Virus is unknown. Finally, we are closely monitoring an exotic mosquito species (Asian tiger mosquito) for Chikunguna virus, a human pathogen spreading in Eurasia.

Current Budget Status: The CAES expenditure for FY 2012 was $11,083,070. This amount is subdivided as follows: state general fund ($6,872,997), federal grants ($3,129,814), and other extramural funds ($1,080,259). The latter mainly represent private and industry contributions. There are 8 unfilled vacancies.

Please feel free to e-mail me at Kirby.Stafford@ct.gov or contact me by phone (203) 974-8485 if you have questions. Thank you.

Sincerely,

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