

A REPORT FROM THE  
EXECUTIVE DEAN  
OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture  
November 2019

USDA-administered third-party audits, GAPs and the FSMA Produce Safety Rule focus heavily on the cleaning and sanitation of surfaces that come in contact with produce. These surfaces can harbor pathogens that are problematic for consumption and decay organisms that shorten the shelf life and marketability of crops. With funding from a USDA Specialty Crop Block Grant obtained through NJDA, county agricultural agents **Meredith Melendez** (Mercer) and **Wes Kline** (Cumberland) partnered with Mercer County Board of Agriculture to conduct a study evaluating postharvest cleaners, sanitizers, and surfaces. During the summer of 2019, the team gathered a number of surface materials that are commonly used in packing houses, evaluating each for 'cleanability' and sanitation using common detergents and sanitizers. Swab sampling was used to assess 'dirtiness' before cleaning, and then cleanliness after rinsing with water, after using a detergent, and again after using a sanitizer. The team concluded the most effective process is: 1) Rinse all visible debris off of the surface with water; 2) Use an appropriate detergent and scrub the surface, paying attention to all corners, crevices, joints, and screw/bolt heads; 3) Rinse the surface clear of detergent and dislodged debris; and 4) Use a sanitizer approved for food contact surfaces. A full report can be viewed at [plant-pest-advisory.rutgers.edu](http://plant-pest-advisory.rutgers.edu).

Despite the rising incidence of tick-borne diseases in the northeastern U.S., information and expertise needed to assess risk, inform the public, and respond proactively varies across states. Standardized and well-designed tick surveillance by trained personnel can facilitate the development of useful risk maps and help target resources, but requires significant start-up costs. To address this challenge, a research team tested whether personnel in New Jersey's 21 county mosquito control agencies would have an interest in participating in a one-day collection of American dog ticks (*Dermacentor variabilis*), a species never before surveyed in the state. A workshop was subsequently held offering training in basic tick biology, identification, and standard operating procedures for surveillance, followed by a one-day simultaneous collection across the state ("NJ Tick Blitz"). In total, 498 *D. variabilis* were collected and follow-up participant surveys demonstrated an increase in knowledge and interest in ticks. This novel training and collection exercise in New Jersey can serve as a template for researchers and officials in other states to obtain baseline tick surveillance data by training and partnering with existing personnel. The New Jersey team consists of Andrea Egizi, Monmouth County Mosquito Control; **James Occi**, Rutgers doctoral student and **Dina Fonseca**, director, Center for Vector Biology; and **Dana Price**, associate research professor, Department of Plant Biology. The study was published in the journal *Insects*.

#### Of Interest

The goal of "2019-2020 Workshop - Annie's Project: Farming in New Jersey's Cities and the Urban Fringe" is to provide production and business management training and skills to new and aspiring women farmers and military veterans farming in urban areas and address the unique challenges they face. Faculty instructors and industry professionals will teach about the five areas of risk identified by the USDA: production, marketing, financial, legal, and personal. Also included will be issues specific to urban farmers, such as: soil quality, lead contamination, off-farm employment/time management skills,

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irrigation, water quality, and availability, direct marketing in food deserts, food safety, working with WIC and SNAP-Ed clients, overcoming language and cultural barriers, and acquiring short-term leased land. Attendees will be able to write a business plan for their farm by the end of the workshop, which takes place in various locations in New Jersey in December 2019 and January 2020. For more information, go to <http://farmmgmt.rutgers.edu>.

According to the National Association of Agricultural Educators, there are approximately 12,000 agricultural education positions in the U.S. but the demand for positions outstrips the supply of teachers. The Agricultural Science Education program at Rutgers, a cooperative effort of the School of Environmental and Biological Sciences (SEBS) and the Graduate School of Education (GSE), aims to change that. In New Jersey, there are two paths available for students to become high school agriscience teachers. In the dual-degree path, students earn a B.S. degree from SEBS in Agriculture and Food Systems followed by the M.Ed. degree from GSE in Agricultural Science Education. In the subject area path, students earn a B.S. from SEBS in Agriculture and Food Systems and then continue with teacher certification via the NJ Department of Education's Alternate Route Teacher Certification. Also, for high school students, SEBS offers up to 17 college credits for courses taken in high school in the Curriculum for Agricultural Science Education (CASE).

The following bulletin is now available on NJAES Publications: E359 Think Twice, Plant Once: Does a Tree Fruit Orchard Make Sense for Your Farm? **Muehlbauer, M., Gohil, H., and Polanin, N.** <https://njaes.rutgers.edu/e359>

### In the News

An article, "What Are Hybrid Hazelnuts, and Why Are Chefs Obsessed with Them?" in *Food & Wine* in October, featured the work that associate professor **Tom Molnar**, Department of Plant Biology, is doing to breed Eastern Filbert Blight-resistant hazelnuts. These specially-bred hazelnuts are considered a low-input crop that can grow without irrigation, chemical fertilizers, or pesticides on marginal land. In anticipation of a boom in the local hazelnut industry, chefs are concocting recipes that showcase its buttery sweetness, and the nuts are already showing up on the menus at high-end restaurants and confectioners.

### Events

**FSMA Produce Safety Alliance Grower Training and Third Party Audits** will be held in various locations around the state, from December through March. FSMA Produce Rule Training is required by the FDA on all farms that aren't exempt. For more information, go to [rutgersonfarmfoodsafety.eventbrite.com](http://rutgersonfarmfoodsafety.eventbrite.com).

**2020 South Jersey Nursery Meeting**, March 12, 2020, 9 a.m. – 4 p.m., Rutgers Cooperative Extension of Cumberland County, 291 Morton Avenue, Millville, NJ 08332. Contact: Call 856-451-2800, ext. 1 or email [brandiwi@co.cumberland.nj.us](mailto:brandiwi@co.cumberland.nj.us). Meet the new RCE nursery agents, **Tim Waller** (Cumberland) and **Bill Errickson** (Monmouth). Topics will cover spotted lanternfly, pesticide regulations, irrigation scheduling, weeds, and pathogens.

