A REPORT FROM THE

EXECUTIVE DEAN OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture September 2016



Extension specialist in weed science, Thierry Besançon

Thierry Besançon joined the Rutgers faculty on September 1 as the new extension specialist in weed science for blueberry, cranberry, vegetables, wine grapes, and fruit crops. Besançon received his master's degree in agronomy in Lyon, France, in 1999 and worked as an agricultural biologist for 10 years in a fruit research station in eastern France, conducting field trials on managing pests and diseases in both organic and conventional stone fruit production. He moved to the U.S. in 2010 and received his Ph.D. in weed science from North Carolina State University in 2015. His programmatic efforts will focus on establishing an innovative research program in weed science using effective, sustainable, and cost-efficient methods of weed control for his major crops, in collaboration with New Jersey growers, the

pesticide industry, county extension agents, USDA researchers, and fellow faculty members in the Department of Plant Biology and Pathology.



Cleaning effectiveness of five surface cleaners were compared with plain water

An "Introduction to Extension, Post-harvest Handling and On-Farm Food Safety" workshop was presented for farm interns and workers at the Rutgers Cooperative Extension of Mercer County office on August 25. Agricultural agents Meredith Melendez (Mercer County) and Wesley Kline (Cumberland County) partnered with the newly organized NJ CRAFT group (Collaborative Regional Alliance for Farmer Training). The workshop presented the potential future farmers with the resources and education available through Extension; covered the importance of temperature in post-harvest crop handling; and highlighted the importance of worker health and hygiene, and the proper use of sanitizers. Five product contact surface sanitizers were

demonstrated and evaluated by sampling for sanitation prior to and after cleaning. Wash water treated with Sanidate was monitored to evaluate effectiveness when produce and soil were added to the water. Similar demonstrations are planned throughout the state. **Melendez** and **Kline** also partnered with NOFA NJ to provide an on-farm food safety walk-through at North Slope Organic Farm on August 7. The walk-through provided information on how to assess human pathogen contamination risk on the farm and ways to reduce that risk. The audience was updated on the Food Safety Modernization Act Produce Rule, USDA Third Party Audits, and Good Agricultural Practices.

Assistant teaching professor **Albert Ayeni**, Department of Plant Biology and Pathology, hosted an "Exotic Crop Field Day" at the on-campus horticulture research farm on September 9. On display were hot peppers such as habaneros, jalapenos, serranos, and African birdseye; African and Asian green and red okra; roselle (a culinary African and Asian pot herb); tigernuts (a tuber); and green and red amaranths.



Of Interest:

Sunn hemp is a fast growing, soil-building summer cover crop. Among the many selections of cover crops, sunn hemp is especially effective at converting nitrogen (N) from the atmosphere into soil fertility. It also builds soil organic matter content and helps control erosion. From a seeding in late spring, it can produce a large amount of biomass over the summer growing season and the tall, dense growth habit is very competitive against weeds. It is also reported to suppress parasitic nematodes in soil. The current issue of *The Soil Profile* newsletter produced by extension specialist in soil fertility **Joseph Heckman**, Department of Plant Biology and Pathology, covers the agronomics, crop management, and NJAES research results of sunn hemp as a cover crop. Issues of *The Soil Profile* are available at: njaes.rutgers.edu/pubs/soilprofile.

Maintenance of the chemical, physical, and biological "health" of the soil is a goal of sustainable soil management. Standard soil fertility assessments involve field sampling with soil probes and laboratory analysis of macro- and micro-nutrients as well as soil pH. Fertilizer recommendations are based on soil nutrient levels and estimated crop needs. The ability of farmland to produce its own biological nutrients such as nitrogen (N) over the growing season, typically has not been measured due to a lack of economical, practical, and/or accurate testing equipment. The Solvita® soil respiration test shows considerable promise in assessing biological soil health and estimating N availability from organic matter decomposition. A new fact sheet is available on this assessment method: Incorporating Soil Biology into Soil Health Assessment FS1256. Sciarappa, W., Murphy, S. and Quinn, V. njaes.rutgers.edu/pubs/fs1256

Events:

R U Ready to Farm? Module One: The Basics Of Getting Started

This three-day program includes class instruction, farm tour, and demonstration.

Saturday, October 22, 8:00am-5:00pm (one day registration for this date only) and Wednesday, October 26, 6:00-9:00pm, Rutgers Eco-Complex, Bordentown, NJ

November 5, 2016 8:00 am – 1 pm, Farm Tour and Demonstration: Specca Farms, Bordentown, NJ Registration: http://www.cpe.rutgers.edu/readytofarm



Rutgers 250 NJAES Breeding Celebration

November 4, 2016, 11 am -4 pm, Douglass Student Center, New Brunswick, NJ The New Jersey agricultural community is invited to a banquet-style lunch featuring Rutgers NJAES plant and shellfish varieties. Speakers include Rutgers plant breeders who will provide insight on the development of new varieties,

such as downy mildew-resistant basil and eastern filbert blight-resistant hazelnut trees. Guest speakers include Secretary Doug Fisher and New Jersey food industry entrepreneurs. The event is a celebration of the decades of revolutionary research during Rutgers 250th anniversary, and will provide information about NJAES breeding programs and provide networking opportunities for agricultural stakeholders. The cost for the event is \$50 per person. To register, go to: breeding.rutgers.edu.

