

A REPORT FROM THE EXECUTIVE DEAN OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture
August 2015

Beginning August 1, **Meredith Melendez** began her new role in the Department of Agricultural and Resource Management Agents as county agricultural and resource management agent at Rutgers NJAES Cooperative Extension of Mercer County. **Melendez** previously served as senior program coordinator for Mercer County. In her new capacity, **Melendez** will provide leadership to develop, implement, and evaluate educational programming and research appropriate to the needs of commercial agricultural and horticultural clientele. This includes helping new and beginning farmers in production, management, and marketing; alternative and sustainable production methods; and on-farm food safety. **Melendez** earned her B.S. in Agriculture from Ferrum College and M.A. in Environmental Conservation Education from New York University.



Mike Hogan, 2015 President of the National Association of County Agricultural Agents, presents the Distinguished Service Award to Jenny Carleo.

Jenny Carleo, agricultural and resource management agent for Rutgers NJAES Cooperative Extension of Cape May County, was recognized with the 2015 Distinguished Service Award by the National Association of County Agricultural Agents. The award honors members with at least 10 years of outstanding service to Cooperative Extension, who have been active in professional development, have an effective extension program, and are endorsed by their state membership and state extension director. As state coordinator for the USDA-funded *Annie's Project New Jersey* program since 2012, **Carleo** has led the team in securing over \$360,000 in funding. The six-week course, based on the national *Annie's Project* program, was tailored to meet the needs of New Jersey women farmers, and focused on farm risk, including marketing and pricing, production risk, financial management, human and

personal risk and legal risk. **Carleo's** leadership enabled the project team to offer farm business management programming to over 278 women farmers and business owners in New Jersey as well as reaching another 470 participants through nationally broadcast webinars. **Carleo** also conducts applied scientific research on horticultural crops in Cape May County. Her research and education programs are targeted to local farmers who strive to continuously improve their knowledge and best practices.



The bell pepper cultivars evaluated for phytophthora tolerance displayed a range of responses from no resistance to great resistance.

The Annual Twilight Meeting and Research Tour at the Rutgers Agricultural Research and Extension Center (RAREC) in Upper Deerfield took place on August 20. Atlantic and Cumberland County Agricultural Agents **Rick VanVranken** and **Wes Kline**, respectively, hosted the tour, with contributions from **Jenny Carleo** and Assistant Director for Farm Programs **Jack Rabin**. **VanVranken** demonstrated a cooling trailer with the innovative CoolBot™ computerized system that enables a window air conditioning unit to act as a cooling machine for insulated areas, serving as an energy-efficient, low-cost alternative to conventional walk-in coolers. Extension Specialist in Plant Breeding **Tom Orton**, Department of Plant Biology and Pathology, provided a briefing on the soon-to-be-released "retro" Rutgers tomato (see overleaf for more on the tomato release). He also conducted a taste test for attendees to evaluate the three final contenders in the Rutgers breeding trials and other leading commercial "flavorful" varieties like BHN589 and Primo Red, in addition to a small tomato cross that he developed from cherry tomato lines. As a prelude to the tour of the RAREC research plots, **Rabin** provided background on the farm, which Rutgers acquired in the 1960s.

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Originally three commercial farms, the RAREC property covers 305 acres in the heart of South Jersey's vegetable production area. **Rabin** explained that from North Carolina to New England, "pound for pound," RAREC does more chemical pest control efficacy and variety trial work compared to other major agricultural research universities in the entire region. Rabin added, "We turn out a tremendous amount of pathology and entomology data that go into commercial recommendation manuals, even to the point that GrowMark FS - they take all our data and distribute it to all of their dealerships east of the Mississippi." The plot tours were guided by Extension Specialist in Vegetable Pathology **Andy Wyenandt**, Department of Plant Biology and Pathology, who reviewed his trials of summer/winter squash and fungicide evaluations for downy and powdery mildew control; fungicides for controlling phytophthora blight in cucurbits; evaluation of bell peppers cultivars and breeding lines for phytophthora resistance/tolerance; and phomopsis blight control in eggplant. Graduate student **Rob Pyne** talked to the group about basil downy mildew resistant sweet basil trial plots, which had infected (susceptible) sweet basil growing alongside resistant (non-infected) sweet basil. **Wes Kline** showed his evaluation plot of slicing and pickling cucumber variety for downy mildew tolerance. Representatives from Seminis announced the launch of 'Turnpike' (with X5R®), a new bell pepper bred specifically for our region that has phytophthora and bacterial leaf spot race 1-5 resistance. 'Turnpike' was developed for our region with a lot of evaluation work done in New Jersey at on-farm sites and at the research station.

The renowned 'Rutgers' tomato was introduced in 1934 by Rutgers vegetable breeder **Lyman Schermerhorn** as an ideal, locally well-adapted and improved general use tomato for processing and fresh market. 'Rutgers' tomato was developed and released in the period between WWI and WWII, during expansion of canning and truck farming, when 36,000+ acres of tomatoes were grown in the Garden State. 'Rutgers' was a genuine horticultural improvement over non-certified saved seeds, as well as over commercial varieties like Pritchard, Marglobe, and J.T.D. (the latter two used as breeding sources to create 'Rutgers', with the original cross implemented by Campbell Soup Company, and then the strain selected and improved by **Schermerhorn**). Not only did 'Rutgers' provide a top performing tomato for New Jersey's processing companies, it continued to be a preferred choice of commercial growers through much of the mid-20th century. It was grown worldwide and used in breeding and selection of other improved varieties. While no longer grown commercially, the 'Rutgers' tomato remained popular, especially with home gardeners. Selections of the 'Rutgers' tomato are available today through many home garden seed catalogs. However, when 'Rutgers' was released by NJAES, **Schermerhorn** encouraged seedsmen to continue selecting for true types in their seed fields. Thus, the original 'Rutgers' tomato line is long lost, and all the seeds sold today are derivative selections, possibly even different cultivars, from the original. The original seed was not maintained at Rutgers NJAES. In 2011, while working on a cooperative project, Campbell Soup Company provided NJAES with Marglobe and JTD seed, opening up the opportunity of rejuvenating the original cross of 'Rutgers' tomato. **Tom Orton**, **Jack Rabin** and Morris County Agricultural Agent **Pete Nitzsche** have been working on the breed selections for this "retro" 'Rutgers' tomato, with the final three selections being evaluated this summer. Release of the seed is anticipated in January 2016, and has already received press coverage in New Jersey and Philadelphia. A television segment interviewing **Nitzsche** and Middlesex County Agricultural Agent **Bill Hlubik** can be seen on NJTV: <http://www.njtvonline.org/programs/njtv-news/#rutgers-brings-back-the-jersey-tomato>.

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Sustaining Farming on the Urban Fringe and blog: <http://sustainable-farming.rutgers.edu>

What's in Season from the Garden State: <http://www.njfarmfresh.rutgers.edu/archive.html>



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