

# EXECUTIVE DEAN OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture  
August 2016

This August, USDA Secretary Vilsack announced the 2016 Specialty Crop Research and Extension Investments USDA-NIFA-funded projects. IR-4's executive director **Jerry Baron** announced that two of these projects were awarded to IR-4's Ornamental Horticulture Program based at Rutgers. The first project, "Protecting Pollinators with Economically Feasible and Environmentally Sound Ornamental Horticulture," is a five-year grant, funded for the first two years at \$2,849,975. It will support 21 scientists and extension experts at 12 different institutions. Working with this team, IR-4's ornamental horticulture manager **Cristi Palmer** developed the project's five objectives: 1) identify pollinator attractiveness of top-selling crops, 2) fill specific regulatory data gaps for pollinator risk assessment of systemic insecticide residues within ornamental horticulture crops, 3) compare current pest management practices with alternative strategies, 4) provide guidance to growers and landscape managers with updated Best Management Practices, and 5) develop outreach tools for multiple stakeholder audiences. The second IR-4 project was a grant of \$50,000 for "Identifying Knowledge Gaps and Novel Management Strategies for Downy Mildews Impacting Environmental Horticulture Crops." Environmental horticulture crops (EHCs) are one of the highest value-per-acre specialty crop industries in U.S. agriculture. EHCs are plants placed into residential and commercial landscapes, interiorscapes, arboreta, parks, sports fields, and recreational areas. EHCs are increasingly threatened by outbreaks of downy mildew (DM) diseases. The production of several high-value EHCs is currently at risk due to this disease. This project will gather researchers, extension specialists, and growers to discuss gaps for DMs where research is needed to develop better control solutions to increase long-term profitability for growers, reduce the incidence and severity of DMs, and ultimately lead to reduced impact on the environment by reducing pesticide use.



*Stacey McCullough, president of the National Association of Community Development Extension Professionals (I), presents Jenny Carleo with the Award for Creative Excellence.*

**Jenny Carleo**, agricultural agent for Rutgers Cooperative Extension of Cape May County, received a 2016 Joint Council of Extension Professionals (JCEP) Award for Creative Excellence at the National Association of County Agricultural Agents conference in Little Rock, AR. JCEP presents its award for Creative Excellence to recognize unique contributions to extension programming through innovation in addressing issues in exceptionally creative or novel ways. **Carleo's** award was for demonstrating how she was able to maintain a personal connection with clients in the age of technology, which she does by engaging the audience as co-creators of their own learning through interactive activities. She enjoys bringing important but tedious material to life, especially in the areas of pesticide safety and business planning, both critical issues for farmers. Her "Pesticide Safety Quiz Game," an educational program that **Carleo** developed using audience engagement methods, is an interactive PowerPoint designed to emulate the TV game show, *Jeopardy*. She also developed a game called, "The Hot Potato Challenge," that utilizes country music, throwing a ball, and audience response technology "clickers" to engage members of any sized audience in rotating pesticides to prevent resistance.

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## Of Interest:

The following new bulletin is now available on NJAES Publications:

E353 Recommended Guidelines for Home Animal Agriculture in Residential Areas. **Westendorf, M., Williams, C. and Mickel, R.** <http://njaes.rutgers.edu/pubs/publication.asp?pid=E353>

## Revolutionary for 250 Years



*William Roberts and wife Dottie at the dedication of the first AIDLPG, is located on the Cook Campus, as a historical national landmark.*

Sometimes innovation strikes at the most unlikely of times and in the most unlikely of places. While researchers can labor for months at their research facilities, a breakthrough may come while they're tinkering at home in their garage or basement. Such was the case for now-retired Rutgers extension specialist in agricultural engineering **William Roberts** while using an aquarium air pump to separate two layers of plastic film in a model greenhouse he was building in his basement on Christmas Day in 1964. As innocuous as it may seem, what **Roberts** did was actually an innovation that would one day, once developed for commercial application, revolutionize the use of greenhouses worldwide and be a boon to the agricultural industry. The work on the air-inflated, double-layer polyethylene (AIDLPG), also referred to as "double plastic" greenhouses that **Roberts** initiated at Rutgers in 1965, along with the contributions of the commercial growers who took the early risks of testing the system, helped this development spread extensively into commercial agriculture. This innovation was quickly adopted for commercial use and became the basis for a rapid expansion in plastic greenhouse acreage. Today, about 65 percent of commercial greenhouses in the U.S. and throughout the world that use double-glazing utilize this system. The AIDLPG so

revolutionized the industry that in 2004, the American Society for Agricultural and Biological Engineering (ASABE) dedicated the structure of the first air-inflated, double-layer polyethylene greenhouse on Rutgers Cook Campus as an ASABE Historic Landmark. Prior to this dedication, only 42 such landmarks had been dedicated in the U.S. since 1926.

## Events:

**Snyder Farm Open House and Great Tomato Tasting**, Wednesday, August 31, 2016 – 3 to 7 p.m., Clifford E. & Melda C. Snyder Research and Extension Farm, 140 Locust Grove Road, Pittstown, NJ <http://discovery.rutgers.edu/events/2016/snyder-farm-open-house-great-tomato-tasting.html>

The first class in the USDA-funded Beginning Farmer and Rancher Development Program project series, "Ultra-Niche Crops for the Progressive, New Farmer," will take place on Sept. 28 from 5:30 to 8 p.m. at Rutgers Cooperative Extension in Cape May County. For additional information, call 609-465-5115, ext. 607. The ultra-niche crop topic covered will be plasticulture strawberries.

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