

A REPORT FROM THE  
EXECUTIVE DEAN  
OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture  
October 2015



*TangOs® is an outstanding yellow-fleshed flat peach, with firm fruit, excellent flavor, and attractive size with 100% bright yellow skin color.*

**Joseph Goffreda**, associate professor in the Department of Plant Biology and Pathology and director of the Rutgers Fruit and Ornamental Research Extension Center in Cream Ridge, was honored by the New Jersey Inventors Hall of Fame on October 22. He received the “Inventor of the Year Award” for breeding a hybrid peach (‘NJF16’), marketed under the name TangOs®, which has a combination of attributes attractive to commercial producers and consumers, yet is resistant to major diseases, particularly bacterial spot. The cultivars developed by **Goffreda**, who has eleven other peach patents, are highly suitable for production in the Northeast and mid-Atlantic regions and have helped to establish New Jersey as one of the major peach producing states in the U.S. The tree fruit breeding program at NJAES began in 1907, introducing varieties that have become standards in the fruit industry and bred for their excellent eating quality, winter-hardiness, and disease resistance. **Goffreda**, who also has 12 patents for apples, apricots, and nectarines, has led the Rutgers tree fruit breeding program since 1989.



*The University of Minnesota team met with Rutgers faculty Karyn Malinowski and Ken McKeever to take blood samples from the Rutgers herd. L-R: Elaine Norton, Ken McKeever, Karyn Malinowski, Molly McCue, Annette McCoy, and Rebecca Splan.*

The Rutgers Equine Science Center (ESC) partnered with the University of Minnesota in procuring blood samples from over 700 Standardbred horses in New Jersey and New York for a new group of studies aimed at identifying genetic factors underlying equine musculoskeletal diseases. The studies will also look at performance traits, such as gait and speed, and how a horse’s genetic makeup affects these traits. Broken into four distinct studies, the researchers will examine the genetic risk factors for recurring exertional rhabdomyolysis and osteochondritis dissecans, and will investigate modifying loci associated with trotting and pacing and those affecting performance in Standardbred horses. The sampling done in New Jersey took place at Gaitway Farm in Manalapan Township, Joie de Vie Farms in Jobstown, Winner’s International Farm in Chesterfield, and White Birch Farm in Allentown. Sampling in New Jersey and New York took place in September and will be added to a larger sampling previously conducted by the University of Minnesota team. Because of the overwhelming support for the project by harness racing trainers in the area, the team will return to New Jersey in early 2016 to continue its sampling. Professors in the Department of Animal Sciences, ESC Director **Karyn Malinowski** and Associate Director of Research **Ken McKeever**, are working with the team.

Rutgers Cooperative Extension (RCE) was awarded a significant grant of \$460,170 by the USDA as part of \$17 million in new federal funding announced on October 8 to benefit beginning farmers and ranchers across the U.S. The three-year grant to Rutgers, awarded through the Beginning Farmer and Rancher Development Program administered by USDA’s National Institute of Food and Agriculture will be used by RCE to educate new and beginning farmers in New Jersey on how to grow high value crops on small acreage. Funding was secured through a collaborative Rutgers proposal, “Ultra-Niche Crops for the Progressive, New Farmer,” which was prepared by **Jenny Carleo**, agricultural agent, RCE of Cape May County, with the assistance of **Jenn Matthews**, project

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coordinator and agricultural consultant, RCE of Cape May County. Among the collaborators are **Robin Brumfield**, specialist in farm management, Department of Agriculture, Food, and Resource Economics; **Jeff Heckman**, Rutgers Media Productions; **Dan Kluchinski**, chair of the Department of Agricultural and Resource Management Agents; and Agricultural Agents **Meredith Melendez**, RCE of Mercer County; **Pete Nitzsche**, RCE of Morris County; **Nick Polanin**, RCE of Somerset County; **Kenessa Reynolds-Allie**, RCE of Warren County; **Rick VanVranken**, RCE of Atlantic County; and **Andy Wyenandt**, specialist in vegetable pathology, Department of Plant Biology and Pathology. The goal of the project is to teach new and beginning farmers nationwide—virtually and in-person—about the cultivation, marketing, and business management of farming 18 ultra-niche crops, including strawberries, basil, roselle, sweet potato vine, hot peppers and mushrooms. “Ultra-niche” crops are considered exceptionally high-value crops that can provide a significant source of income to the farmer while using minimal land area. Educational programming will include crop selection, entrepreneurship, and business training- including financial and risk management, as well as diversification and marketing techniques. Helping to guide the selection of crops as well as the implementation of this project will be a stakeholder advisory council comprised of farmers, Farm Credit East, New Jersey Agricultural Society, and the New Jersey Farm Bureau.

While small farms represent the dominant form of production agriculture in the world, typical agricultural knowledge and technology development models have often failed to improve small farm productivity, enhance resource conservation, reduce rural poverty, or improve regional food security. A new research study in organic farming—a unique value-added form of agriculture—has been undertaken to help address inadequacies in the current knowledge of the organic market as well as provide innovative new options for struggling small farmers. Rutgers, in partnership with the Northeast Organic Farming Association of New Jersey and the New Jersey Department of Agriculture, was awarded a \$99,803 grant for the study of consumer perceptions and behaviors in the Mid-Atlantic region in order to enable growers to capitalize on the organic market. The grant was awarded through the USDA’s Federal-State Marketing Improvement Program, which provides matching funds to state departments of Agriculture, state agricultural experiment stations, and other state agencies to assist in exploring new market opportunities for U.S. food and agricultural products, and to encourage research and innovation aimed at improving the efficiency and performance of the marketing system. Rutgers faculty participating in the project are Department of Agriculture, Food, and Resource Economics members, Professor **Ramu Govindasamy** (Principal Investigator), Instructor **Isaac Vellangany**, and Postdoctoral Associate **Surendran Arumugam**; Extension Specialist in Soil Science **Joseph Heckman**, Department of Plant Biology and Pathology; and Agricultural Agents **Rick Vanvranken**, RCE of Atlantic County; **Meredith V. Melendez**, RCE of Mercer County; **Wesley L. Kline**, RCE of Cumberland County; and **Jenny S. Carleo**, RCE of Cape May County. The goal of this research is to enhance both the net profits and the sustainability of small farms choosing to service the organic niche market.

**Raul Cabrera**, associate professor in the Department of Plant Biology and Pathology, and extension specialist in nursery production and management at the Rutgers Agricultural Research and Extension Center, is the principal investigator of an award totaling \$15,000. His project, titled *Evaluation of Integrated Nutrient Diagnosis Techniques to Enhance Productivity and Quality in Greenhouse Rose Crops*, is being supported by the Joseph H. Hill Memorial Foundation.

#### Events:

##### **RutgersX – Accelerating Food Entrepreneurs Conference**

Monday, Nov. 16, 2015, hosted by the Rutgers Food Innovation Center, to be held at the Rutgers Student Center, 126 College Avenue, New Brunswick, NJ 08901. Visit <http://x.rutgers.edu> for more information.

