

A REPORT FROM THE
EXECUTIVE DEAN
OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture
December 2016



The “RU Ready to Farm” introductory class. On the far left is Dave Specca, assistant director for bioenergy technologies and controlled-environment agriculture at the EcoComplex and owner of Specca Farms. Bill Hlubik is on the far right.

The “RU Ready to Farm” program introductory training module was held on October 22, 26 and November 5 at the Rutgers Eco-Complex in Bordentown, NJ. The program attracted over 75 participants ranging in age from 17 to 60 years, with over 30 people in their early 20s. The objective of the first module was to provide a very basic overview of funding and informational resources available for beginner farmers and provide some tips on how to get started in New Jersey with limited resources. Program evaluations were very positive and students reported that they are looking forward to upcoming modules. The program provided two days of classroom training followed by a farm tour to a pick-your-own operation that attracts a very diverse ethnic

customer base. Successful young growers like Rose Robson, along with Stephen Specca, a recent agricultural science graduate from Rutgers School of Environmental and Biological Sciences, discussed some of their accomplishments and challenges. Professor **Bill Hlubik**, program director and Rutgers Cooperative Extension of Middlesex County agricultural agent, commented, “participants were really interested in learning about starting their own farm and had great questions and very positive comments. It was fascinating to see such a diverse group and especially so many young people that want to learn about farming, given that the average age of the New Jersey farmer is in the late 50s.” Upcoming hands-on educational modules for beginning farmers through the “RU Ready to Farm” program are being planned for the late spring 2017 through next year.

The Rutgers Cooperative Extension (RCE) Water Resources Program, in partnership with the New Jersey Natural Resources Conservation Service, is working with New Jersey farms to reduce fertilizer runoff from farmland. The goal of the project is to retro-fit tile drains on farms throughout the state with nitrogen-reducing wood chip bioreactors. In the mid-19th century, agricultural fields with wet soils were often drained with long sections of perforated pipes called tile or tile drains. These pipes drained excess water from the fields to create conditions more suitable for growing crops. Tile drains have helped create productive farmland all over the country. Although records of tile drain installations have not been kept and the location of these systems is uncertain, the RCE Water Resources Program, through geographic information system (GIS) analyses, estimates that approximately 36,000 acres of farmland in New Jersey is likely drained by these 100+ year-old underground pipe systems. As agricultural practices have evolved, fertilizers containing the nutrients phosphorus and nitrogen have become a mainstay in modern cultivation. While these fertilizers have increased yields, they can affect water quality. Phosphorus and nitrogen are required for plant and animal growth but too much in agricultural runoff, especially from tile drains, can result in environmental and health concerns. In Burlington County,

RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

School of Environmental and Biological Sciences and New Jersey Agricultural Experiment Station
SEBS.RUTGERS.EDU • EXECDEANAGRICULTURE.RUTGERS.EDU • NJAES.RUTGERS.EDU

Specca Farms has partnered with the research team to develop and test a nitrogen-reducing wood chip bioreactor. The bioreactor is designed to intercept the agricultural runoff flowing through tile drains and to filter it through a trench filled with wood chips. The perfect environment for denitrification will be created in the large trench for bacteria to reduce nitrate concentrations by 15-75%. The designs for the installation of the bioreactor will be completed over the winter and the installation is scheduled for the early spring of 2017.



Albert Ayeni (l) and Ramu Govindasamy (r) display hot peppers in ethnic crop research trials.

The NJAES specialty crop research group has received funding of approximately \$2 million from the USDA to conduct research to examine potential markets for ethnic specialty crops in the East Coast. With these data, researchers are planning to look into those crops that have the potential to be grown in greenhouses and hoop houses. The specialty crops of interest include exotic peppers, roselle, amaranth, African eggplant, tiger nuts, and okra. This summer, these crops and others were grown by students at Horticultural Research Farm III on the George H. Cook Campus and sold at the New Brunswick Community Farmers Market. The group is being led by **Ramu Govindasamy**, specialist in marketing, Department of Agricultural, Food, and Resource Economics and **Albert Ayeni**, specialist in ethnic crops in the Department of Plant Biology.

In the News

The online magazine *Farming* northeast edition, posted an article in October highlighting Suzanne's Project, an international version of the national *Annie's Project*, which has had great success training women to run their farm operations as businesses. Five years ago, **Robin Brumfield**, professor of farm management, Department of Agricultural, Food, and Resource Economics, took the *Annie's Project* idea to Turkey as part of a sabbatical leave. There, it became known as Suzanne's Project and was adapted to Turkish conditions. Empowering Woman Farmers with Agricultural Business Management Training (EMWOFA) is an EU-funded project that aims to strengthen the linkages between researchers and extension educators in Turkey, Germany, and Spain, and provides a comprehensive training program for extension educators who will have direct contact with women farmers. By training-the-trainers, Suzanne's Project helps extension educators aid women farmers to develop technical, entrepreneurial, and managerial skills through specialized training and to realize their full potential of operating and sustaining profitable farms as small businesses.

Events:

Ultra-Niche Crops: High Tunnel Winter Lettuce, January 31, 5:30 – 8:00 p.m. Live speakers will present from Rutgers EcoComplex, with remote participation in Rutgers Cooperative Extension of Cape May and Somerset counties. njaes.rutgers.edu/ultra-niche-crops/pdfs/2017-0131-Winter-Lettuce-Flyer.pdf

Central Jersey Vegetable Growers' Meeting, Feb. 24, 2017, 9 a.m. –3:30 p.m., Rutgers Cooperative Extension of Monmouth County, Freehold. Contact **Joanne Bujalski** at 732-431-7260, ext. 7261.

