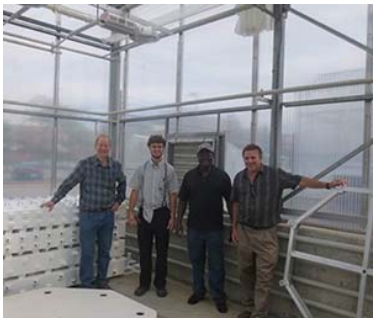
A REPORT FROM THE

EXECUTIVE DEAN
OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture
October 2016



L-R: A.J. Both, member of Amish construction crew, Albert Ayeni, and Bill Sciarappa.

Phase one of a new, progressive project for the NJAES research greenhouse on the G. H. Cook Campus was implemented October 12 with the delivery, placement, and initial assembly of six aeroponic units for producing high-value specialty crops. Phase two will be the installation of hydroponic and geoponic systems. Phase three involves the creation of undergraduate courses and continuing education workshops using these innovative systems as hands-on learning tools and for research in indoor cultivation. Principal investigators are **A.J. Both** (extension specialist in controlled environment engineering, Department of Environmental Science), **Albert Ayeni** (ethnic crop specialist, Department of Plant Biology and Pathology), and agricultural agent **Bill Sciarappa** (Monmouth County), with support from director of greenhouse operations and planning **Joe Florentine**. This research and education team is looking to stay abreast of changing technologies; foster new ag opportunities and; solve problems in lighting, fertigation, and crop cultivars. The system supplier, Aero Development Corp., has subsidized their system costs for academic endeavors and sent their Amish construction team from Lancaster, PA to help Rutgers expedite project goals.

L-R: Robin Brumfield, Nick Polanin, Barbara O'Neill and Somerset County 4-H agent Carol Ward, who presented the award.

Agricultural agents **Meredith Melendez** (Mercer County), **Jenny Carleo** (Cape May County), and **Nicholas Polanin** (Somerset County), and extension specialists in the Department of Agricultural, Food and Resource Economics **Robin Brumfield** (farm management) and **Barbara O'Neill** (financial resource management) were recognized at the Epsilon Sigma Phi (ESP) National Conference in Cape May, NJ on October 25 for their outreach program "Preparing for Later Life Farming." The team won the National Distinguished Team award for the Northeast Region. This statewide outreach program focused on estate planning and farm transfer. Materials and videos of the presentations can be found online at laterlifefarming.rutgers.edu/workshop. ESP is dedicated to fostering standards of excellence in the extension system and developing the extension profession and professional.

Growing local crops to supply the craft brewery and distilleries movement is sweeping the U.S. It is a hot topic in the agriculture industry as new and existing growers are paying attention to potential opportunities for these products. Farm brewery and distillery operations are emerging enterprises in New Jersey with farmers investigating implementation. A team of Rutgers NJAES Cooperative Extension agricultural agents is assisting potential grower/suppliers with their new ventures via research and education with a new RU BREW Team (Rutgers University Brewing crops Research and Extension Work).

Extension faculty leading this new program include: agricultural agents **Bill Bamka** (Burlington County), **Michelle Infante-Casella**, (Gloucester County), and **Steve Komar**, (Sussex County); and **Brian Schilling** (extension specialist in agricultural policy, Department. of Agricultural, Food and Resource Economics); and **Daniel Kluchinski** (chair, Department of Agricultural and Resource Management Agents). The team is also working with graduate students from the lab of **Jim Simon** (distinguished professor of plant biology and director of the New Use Agriculture and Natural Plant Products Program), who perform quality tests on hop cones for New Jersey growers. **Bamka** and **Komar** are testing malting grains to see if varieties produced in other parts of the country adapt to New Jersey soils and climate. Hops varieties assessments are being conducted at the Rutgers Snyder Research & Extension Farm in Pittstown, NJ. In comparison to Pacific Northwest states, hops growing is challenging with New Jersey's climate and pest pressure, however New Jersey farmers have proven resilient in producing other challenging crops. More information will be presented about farm brewing crops during an all-day program at the New Jersey Agricultural Convention and Trade Show on February 7, 2017.

Organic popcorn was produced and harvested at the Rutgers Snyder Research Farm to advance research, teaching, and extension programs in local organic crop production. This research project was a collaborative effort between extension specialist in soil fertility **Joseph Heckman** (Department of Plant Biology and Pathology), and Amwell Valley Organic Grains. The sale of USDA-certified organic popcorn is covering research project expenses, with proceeds used for maintaining the certified organic research land at Snyder Farm. **Heckman** was also was invited to participate in a symposium at the International Association of Food Protection (IAFP) 2016 meeting in St. Louis, MO, entitled, "Debate: Raw Milk Sales and Consumption – An Amicable Exchange of Experts." A video-recording of this exchange has been posted by IAFP as a useful tool for outreach: www.youtube.com/watch?v=Sin8xrMRHXE.

Of Interest:

Dickeya dianthicola, an aggressive bacterial pathogen causing blackleg disease, was found in 2016 on potatoes in New Jersey for a second year in a row. The pathogen was also found in potato crops in other states in the mid-Atlantic region this summer. The pathogen can cause significant losses when it is introduced into the field on infested seed. Extension specialist in plant pathology **Andy Wyenandt** (Department of Plant Biology and Pathology) has been instrumental in tracking the disease and implementing measures to protect New Jersey potato crops. **Wyenandt** and Meg McGrath (associate professor, Cornell Long Island Horticultural Research & Extension Center) prepared "Best management practices for *Dickeya* in potato production fields in the Northeast," which is posted on the *Plant & Pest Advisory* blog: plant-pest-advisory.rutgers.edu.

The following fact sheet is now available on NJAES Publications:
FS1260: Red Leaves in the Vineyard: Biotic and Abiotic Causes. **Gohil, H.**, **Pavlis, G.**, **Ward, D.**, and Nita, M. njaes.rutgers.edu/pubs/fs1260