

A REPORT FROM THE EXECUTIVE DEAN OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture
January 2020

County Agent Searches: NJAES Department of Agricultural and Natural Resources (ANR) is conducting searches for three positions: 1) County Agent III, Cape May County, to provide leadership and support for the commercial agricultural industries in the county and the region with expertise in agribusiness planning, including agritourism and retail marketing; wineries and craft beverages; assisting beginning farmers; niche crop and livestock production; and risk and financial management. 2) County Agent III, Salem County, to provide leadership and support for the commercial agricultural industries in the county and the region with emphasis on forage and grain; agribusiness planning, risk and financial management; with a working knowledge of animal agriculture systems. 3) Program Associate II - Commercial Crop Production, Burlington County, to collaborate with county agents to support field-based outreach and local programming in commercial crop production in the county and the region.

Greenhouse Technology: While recent advances in energy-efficient LED technology provide the horticultural industry with multiple lighting options for greenhouses and controlled environments, growers are unable to easily compare technologies and LED options because of a lack of independent data on how lamps perform. An earlier study by extension specialist in horticultural engineering **A.J. Both** (Department of Environmental Sciences) and colleagues, has resulted in proposed standardized product labeling, which allow for comparisons of lamps across manufacturers. Further, many lighting companies market their LED products with claims of delivering an optimal “light recipe” that often consists of a combination of wavelengths and color ratios. Plant scientists often use this information to evaluate the potential effects of lamps on plant growth and development. Standardized procedures on how to calculate these ratios are lacking, according to a new study soon to be published in the journal *Acta Horticulturae*. A.J. Both and colleagues continue to focus on independently assessing performance metrics such as power consumption, efficiency, light intensity and the light distribution pattern, and relaying that information to commercial growers.

Soil Health: Soil testing provides the backbone for nutrient management programs in modern, intensive agricultural production systems. While it has the common goal of determining where fertilizer is needed and how much to apply, soil testing laboratories in the U.S. differ in soil analytical methods, interpretative terminology, and philosophical approaches to fertilizer recommendations. These differences often result in varying fertilizer recommendations among labs within and across states, leading to end-user confusion and reduced confidence in soil testing. Extension specialist in soil fertility **Joseph Heckman** (Department of Plant Biology) and Rutgers Soil Testing Lab director **Stephanie Murphy** are participating in a national effort that includes faculty from 26 land-grant universities, ARS scientists, and others, to build a stable database of soil-test correlation and calibration trials from published literature, theses and dissertations, and state records. As of December 2019, the team has compiled data from over 800 soil test P or K correlation trials from 21 states. Ultimately, the project will develop a data analysis tool that will allow interpretative analyses at various levels, segregated by user-selected factors that could influence correlation and calibration outcomes.



Equine Programs: Rutgers Department of Agriculture, Food, and Resource Economics and the Rutgers Equine Science Center, working with the Northeast Regional Center for Rural Development at Pennsylvania State University, published an open access journal article that showed that state-level policies, especially those related to gambling, heavily affect the choices made by racehorse breeders and owners. "The Evolution of Racehorse Clusters in the United States: Geographic Analysis and Implications for Sustainable Agricultural Development," used a standardized data set of registered Thoroughbred and Standardbred stallions between 1995 and 2017. The study found that smaller, more local breeding operations have largely disappeared, while those that had an initially higher percentage of stallions have become larger or clustered in specific geographic regions. The authors propose that these changes are heavily influenced by state-level policies, which can influence the conservation of agricultural landscapes as well as racing revenues.

James Murphy, extension specialist in turfgrass management, **Bruce Clarke**, extension specialist in turfgrass pathology and director of the Rutgers Center for Turfgrass Science, and **Pingyuan Zhang**, graduate assistant, Department of Plant Biology, are principal investigators on a two-year award totaling \$60,000 for "Optimizing Fungicide Programming for Dollar Spot Control in Bentgrass Fairways."

Of Interest:

An anonymous donor has challenged Rutgers Cooperative Extension (RCE) and New Jersey Farm Bureau to raise funds for new programming in support of production agriculture in New Jersey by extension specialists and county-based agriculture and natural resource agents. Funds will be managed by the director of RCE and used for research and educational outreach directly aligned with needs in the industry. All gifts will be matched dollar-for-dollar up to \$10,000. To make a donation, go to makeagift.rutgers.edu/production-ag-fund.html.

In the News:

In December, *CBS New York* featured the Rutgers Food Innovation Center (FIC), noting that the Impossible Burger got its start thanks in part to the university's food incubator, and highlighting FIC's work with Chank's pizza cones and quoting **Diane Holtaway**, associate director, marketing & business development, and **Nolan Lewin**, acting executive director and director of operations. The *Big Ten Network* also produced a video on the FIC, featuring **Lewin**, **Rich McArdle**, former executive director of the FIC, and **Peggy Brennan-Tonetta**, executive director for economic development and innovation, and **Bob Goodman**, executive dean of agriculture and natural resources.

Events:

NOFA-NJ will host its 30th Annual Winter Conference on February 1, 2020, at the Rutgers Douglass Student Center in New Brunswick, NJ. NOFA-NJ offers a line-up of national and internationally-recognized speakers, including faculty and staff from NJAES, who will focus on business, crops, gardening, livestock, health, and policy. For more information, go to nofanj.org/winter-conference.

Central Jersey Vegetable Growers Meeting, March 9, 2020, Monmouth County Ag Building, RCE of Monmouth County, 4000 Kozloski Rd., Freehold, NJ To register, contact 732-398-5262.

