

A REPORT FROM THE
EXECUTIVE DEAN
OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture
September 2017



Doug Zemeckis

Douglas Zemeckis joined the Department of Agriculture and Natural Resources as the county agent based in Ocean County as of September 1. Zemeckis worked most recently as a postdoctoral researcher in the Department of Marine and Coastal Science at Rutgers, and as a postdoctoral research associate at University of Massachusetts Dartmouth. In his new capacity, Zemeckis will provide leadership in developing, implementing, and evaluating educational programming and research appropriate for aquaculture and fisheries clientele on production, marketing, post-harvest processing, management, and stock assessments, as well as environmental stewardship and coastal resource management. Although based in Ocean County, he will also work in Monmouth and Atlantic counties as the position is funded by all three counties. Zemeckis earned his B.S. in Marine Sciences from Rutgers, and his M.S. and Ph.D. in Marine Science and Technology from University of Massachusetts Dartmouth. He can be reached at the Rutgers NJAES Cooperative Extension office in Ocean County at zemeckis@njaes.rutgers.edu.



Jenn Matthews

As of September 1, **Jennifer Matthews** joined the Department of Agriculture and Natural Resources as a program associate in Cape May County. Matthews previously worked as a temporary staff employee and after a full search, became the successful candidate for the position. In her new capacity, Matthews will exclusively provide coordination of logistics and contributions to two grant-funded projects, the Ultra Niche Crops program, and the On-Farm Food Safety Education project. She will provide assistance in both Cape May and Cumberland counties. Matthews earned her B.A. from Centenary College and her Masters in Agricultural Education from Iowa State. She can be reached at the Rutgers NJAES Cooperative Extension office in Cape May County at jmatthews@njaes.rutgers.edu.

Controlled environment agriculture practices are gaining attention with the increased interest in indoor growing systems. A new undergraduate course, "Indoor Cultivation of High Value Crops," was developed by agricultural agent Bill Sciarappa (Monmouth County), Albert Ayeni, assistant teaching professor in the Department of Plant Biology, and A.J. Both, extension specialist in controlled environment engineering in the Department of Environmental Sciences. The course focuses on aeroponics, hydroponics, and geponics as innovative technologies that offer potential career opportunities in the production of high-value crops. During the course, students will investigate these various plant production methods in small growing systems, commercial vertical towers, and conventional hydroponic or geoponic systems. The students will develop a detailed production, business, and marketing plan. They will compare growing systems in terms of practicality, challenges, and economic feasibility. Independently, they will master the production of one specific crop of interest grown in a controlled-environment system and assess its entrepreneurial potential for New Jersey and beyond.



AeroFarms, a leading indoor vertical farming company headquartered in Newark, NJ, was awarded a Seeding Solutions grant of \$1 million from the Foundation for Food and Agriculture Research, a nonprofit organization established under the 2014 Farm Bill. Scientists from Rutgers and Cornell universities will collaborate with AeroFarms in research using the tight controls of vertical farming to grow better-tasting leafy greens at the farm. **Beverly Tepper**, professor in the Department of Food Science and director of the Center for Sensory Sciences & Innovation, and **Jim Simon**, distinguished professor in the Department of Plant Biology and director of the New Use Agriculture and Natural Plant Products Program, will be involved in a range of research activities. Among the research to be conducted is identifying the growth factors to help balance optimum nutrition with high acceptability that will lead to leafy greens that appeal to different consumers. Studies will also determine the relationships between key bioactive compounds and sensory perceptions in an effort to tailor plant physiology to obtain a range of sensory characteristics that will appeal to children. Sensory studies will be conducted in Tepper's laboratory and linked with data on phytochemical analyses conducted in Simon's lab.

Of interest:

The following fact sheets are now available on NJAES Publications:

FS1277 Tying-Up in Horses. **Liburt, N.**, and **Williams, C.**

njaes.rutgers.edu/pubs/fs1277

FS1279 Ultra-Niche Crops Series: Fresh Market Basil. **Matthews, J.**, **Melendez, M.**, **Simon, J.**, and

Wyenandt, A. njaes.rutgers.edu/pubs/fs1279

Events:

October 4 and 11 – “An Evening of Wine and Equine: Nutrition and Environmental Stewardship on New Jersey Horse Farms” will be hosted by equine extension specialist **Carey Williams** and extension specialist in livestock and dairy **Mike Westendorf**. The event will be held at Trilogy Farm in Chesterfield, NJ, on the 4th, and Hidden Hills Farm in Hillsborough, NJ, on the 11th. For more information and to RSVP, contact carey.williams@rutgers.edu.

October 25 – “2017 South Jersey Nursery Meeting” at Rutgers Cooperative Extension of Cumberland County, Extension Education Center, 291 Morton Ave., Millville, NJ 08302. Contact: 856-451-2800.

November 9 – Save the date for the Equine Science Center's “Evening of Science & Celebration.” Information will be available at esc.rutgers.edu.

November 29 and 30 – “FMSA Produce Safety Rule Training and Third Party Audit Training,” at Rutgers Snyder Research Farm, 140 Locust Grove Rd., Pittstown, NJ. To register or for more information, go to rutgersonfarmfoodsafety.eventbrite.com.



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