A REPORT FROM THE

EXECUTIVE DEAN OF AGRICULTURE AND NATURAL RESOURCES

Report to the New Jersey State Board of Agriculture May 2017



BOM tour attendees in front of the EcoWall at the Institute for Food, Nutrition, and Health

Rutgers NJAES Board of Managers (BOM) hosts an annual tour of NJAES research facilities to get an in-depth perspective of the agricultural, environmental, and nutritional research and outreach conducted by faculty, staff, and students. This year the BOM held the tours in three locations around the state to broaden the opportunity for legislators, legislative aides, and freeholders to attend and observe firsthand the value of state and county support of NJAES. The tours, which were held in March and April, included the Rutgers EcoComplex in Bordentown; Rutgers NJAES facilities on the George H. Cook Campus in New Brunswick; and the Rutgers Snyder Research Farm in Pittstown. The tours were well attended

by county board of agriculture members, legislators and aides, freeholders, and representatives from related industries. NJAES administration extends its thanks to tour attendees and those who worked diligently to organize and co-sponsor the "Discovering New Jersey's Agricultural Experiment Station" tours: the New Jersey Department of Agriculture/State Board of Agriculture, the New Jersey Farm Bureau, the New Jersey Agricultural Society, and the NJAES Board of Managers.

Rutgers agricultural agents, **Bill Hlubik** (Middlesex) and **Pete Nitzsche** (Morris), have worked diligently to bring professor emeritus **Gojko Jelenkovic's** over 35 years breeding of improved strawberry cultivars for production in eastern North America to fruition. **Jelenkovic** utilized traditional breeding techniques to improve strawberry fruit quality, yields, disease resistance, and most importantly, flavor. For the past 10 years, **Nitzsche** and **Hlubik** have been running trials on **Jelenkovic's** strawberry cultivars in Rutgers research plots and on New Jersey farms. Since the 2015 release of the Rutgers Scarlet™ strawberry, distribution has expanded, with plants sold to commercial growers and home gardeners in over 22 states and fresh strawberries sold via direct marketing throughout New Jersey. Two more **Jelenkovic** strawberry cultivars are in the pipeline for release, both with great strawberry flavor similar to Rutgers Scarlet™ but a little on the sweeter side. One cultivar also has a unique fruit shape, a potential novelty for gardeners, and also easily identifiable in the marketplace. The Rutgers strawberry breeding program has been included in a one-hour, made-for PBS documentary, "The Favored Strawberry," in which New Jersey growers and **Jelenkovic** are featured. The trailer for the film is available at: www.favoredstrawberry.com.

Since its 2016 release, the Scarlet Fire® dogwood has been available on a limited basis, propagated through nurseries licensed by Rutgers and distributed to nurseries in New Jersey and in other states for resale. It is estimated that over 10,000 bare-root liner trees (propagation stage trees) were sold in 2017, many of which will enter the retail garden center market in the spring of 2018. Others will be grown to larger trees for container and ball and burlap sale and utilized by the landscape industry in later years.



Propagation numbers continue to grow as demand increases for the tree. Over 25,000 were budded in 2017 by Rutgers licensees to produce liner trees, which will be harvested in 2018 and enter the retail market in 2019. As projected by licensees, the number of trees budded in 2018 will likely increase to over 30,000 trees, leading to expanded production and availability of this new variety in coming years. Associate professor **Tom Molnar**, Department of Plant Biology, continued the development of a pink Asian dogwood tree about 10 years ago, first started by now retired plant biologist **Elwin Orton**, who led Rutgers' dogwood breeding program for decades.

Of Interest:



Mesonet station at Rutgers Snyder Research Farm.

Most farmers, ranchers, and foresters use a variety of government and private weather sources to determine how much it rained or forecast the weather. Few, however, may realize they have access to a homegrown weather and climate resource in their own state, called a state climate office (SCO). SCOs gather and archive weather and climate information, and provide expertise for decision-making within state agencies, businesses, and the general population. The state climate offices in New Jersey, as well as many other states in the Northeast, are situated at land-grant universities. They are led by appointed state climatologists who are recognized by the National Oceanic and Atmospheric Administration. New Jersey's state climatologist, Dave Robinson, operates as part of NJAES. The New Jersey SCO runs weather meso-networks (mesonets) that provide high-quality weather data for farmers and other users. Mesonet stations record a number of common climate variables, such as air temperature, relative

humidity, precipitation, wind speed and direction, and barometric pressure. They also record other variables that impact crops, including solar radiation, and soil temperature and moisture. New Jersey's 66-station mesonet is called the New Jersey Weather Network (NJWxNet), which measures and disseminates weather conditions in real time every five minutes. Data from mesonet stations are relayed to their respective state climate offices where they are checked for quality and provided to the public, and in the case of New Jersey, via njweather.org. All data are archived for use in various types of applications, including several focused on agriculture. NJWxNet data are provided to the Network for Environment and Weather Applications (NEWA) at Cornell University. NEWA uses the data to support integrated pest management and other best management practices. *Revised from USDA Climate Hubs News*.

Several submissions to the National Association of County Agricultural Agents (NACAA) 2017 National Communications Contest from the Rutgers NJAES Department of Agriculture and Natural Resources were adjudged regional and national winners and finalists, including the *Red Leaves in the Vineyard* FS1260 with **Hemant Gohil**, agricultural agent, Gloucester County as lead author, winning the national award in the Fact Sheet category.

