

## RUTGERS GARDENS

New Brunswick, NJ    USDA Hardiness Zone 6B

New Jersey began 2015 with a colder January than usual, but still with only ten days that never made it above freezing. Although the state received above-average precipitation for the month, at Rutgers Gardens we were a little below average, with most being delivered as rain on January 4 and, on January 19, as terrible ice and snow. February—the third coldest on record—marked our yearly low of  $-1^{\circ}\text{F}$  ( $-18.3^{\circ}\text{C}$ ) on the 21<sup>st</sup> and 24<sup>th</sup>. The week leading up to February 21 saw the coldest temperatures of the year, reaching a high on the 21<sup>st</sup> of only  $18^{\circ}\text{F}$  ( $-7.8^{\circ}\text{C}$ ) with nighttime lows in the single digits. The month was slightly below average for precipitation. March was a little backwards. While most of the state was colder and snowier than average, we were about  $5^{\circ}\text{F}$  ( $2.8^{\circ}\text{C}$ ) above average, with slightly below average precipitation, although we did receive just over  $1.5''$  ( $3.8\text{ cm}$ ) of snow from March 4 to 6. April was dry but extremely warm, with an average temperature  $14^{\circ}\text{F}$  ( $7.8^{\circ}\text{C}$ ) above our normal. Dropping to  $30^{\circ}\text{F}$  ( $-1.1^{\circ}\text{C}$ ), April 25 was our last below-freezing low of the season. May 2 and 3 did drop to about  $38^{\circ}\text{F}$  ( $3.3^{\circ}\text{C}$ ). May was otherwise warm and dry, with precipitation at  $2.6''$  ( $6.6\text{ cm}$ ) below the normal state average for the month. Despite drought concerns, June compensated with  $6.13''$  ( $15.16\text{ cm}$ ) of rain—more than  $2''$  ( $5\text{ cm}$ ) above our normal average for that month. Significantly above-average temperatures continued not only through June, but for every month through the end of the year at Rutgers Gardens. July was more than one inch ( $2.5\text{ cm}$ ) below average for precipitation, and saw temperatures above  $90^{\circ}\text{F}$  ( $32.2^{\circ}\text{C}$ ), hitting  $95^{\circ}\text{F}$  ( $35^{\circ}\text{C}$ ) on July 20, 21, and 29, and  $96^{\circ}\text{F}$  ( $35.6^{\circ}\text{C}$ ) on the July 30. August 18 brought the yearly high of  $98^{\circ}\text{F}$  ( $36.7^{\circ}\text{C}$ ), and despite flash flooding in some areas of the state, we were among the drought-inflicted areas, with only  $1.21''$  ( $3.1\text{ cm}$ ) of rain —  $3''$  ( $2.6\text{ cm}$ ) below the normal state average. September was the third warmest on record in New Jersey, and we were almost  $17.5^{\circ}\text{F}$  ( $9.8^{\circ}\text{C}$ ) above the normal average temperature for the state. We continued to experience a long dry spell until rains arrived on September 30 and continued into the beginning of October. Despite an average of almost  $13^{\circ}\text{F}$  ( $7.3^{\circ}\text{C}$ ) above normal, October 18 was our first below-freezing night, with a low of  $28^{\circ}\text{F}$  ( $-2.2^{\circ}\text{C}$ ). Unseasonably warm weather continued in November, while the precipitation for both October and November was more than  $2''$  ( $5\text{ cm}$ ) below average each month. We finished out the year with the warmest December on record for the state, and an average temperature of  $56.7^{\circ}\text{F}$  ( $13.7^{\circ}\text{C}$ )—more than  $21^{\circ}\text{F}$  ( $11.8^{\circ}\text{C}$ )

above the state average dating back to 1895! Fortunately, the dry conditions ended and we got a total of 4.67" (11.9 cm) of precipitation, which is 0.76" (1.9 cm) above the monthly average for the state.

During the year, we moved two *Ilex* × 'Rutzan' Red Beauty® plants from a research area into a prominent position in our Rhododendron Garden. We also rented a lift and removed vines—from top to bottom—from many of the hefty trees in our collection. A couple of large, mature *I. opaca* 'Farage' duplicates, which were badly crowded, were removed from the collection. The year was marvelous for berries, and the trees looked absolutely beautiful, despite all droughty conditions that didn't seem to impact them at all. We supplied quite a quantity of cuttings to local associates for the holiday season. One of the most notable trees that comes to mind was *I. opaca* 'Mrs. Santa', although she rarely disappoints. This is one of several attractive, single-leader trees slated for root pruning in preparation for relocation within Rutgers Gardens in a few years (the 2-year root pruning process will begin in 2016, in preparation to be moved in 2018). The lovely display lasted for many weeks, while flocks of robins ate their fill.

Our holly collection began as an evaluation of varieties in the 1950s, and became the foundation of Dr. Elwin Orton's American Holly (*I. opaca*) breeding program. The original planting, together with some of Dr. Orton's recent selections (including 'Dan Fenton', 'Jersey Princess', 'Jersey Delight', and 'Jersey Knight'), make up one of the largest American Holly collections in the United States. In addition, our collection includes a wide range of other *Ilex* species and hybrids, including noteworthy specimens of *I. opaca* such as 'Galyean Gold' and 'Boyce Thompson Xanthocarpa'; *I. perado* (Madeira Holly), *Ilex* × *altaclerensis* 'James G. Esson', and other interesting hybrids. Also represented are numerous English Hollies (*I. aquifolium*), Chinese Hollies (*I. purpurea* and *I. cornuta*), Japanese Hollies (*I. crenata*), Inkberry Hollies (*I. glabra*), and well over 50 deciduous hollies including *I. decidua*, *I. montana*, *I. serrata*, *I. verticillata*.

The official botanical garden for Rutgers University, Rutgers Gardens encompasses nearly 180 acres (72.8 hectares) of maintained and natural areas, featuring gardens providing numerous programs for community, faculty, and students to enjoy. We're looking forward to many great events in 2016, celebrating our 100-year anniversary. Among our regular annual features are the Spring Flower Fair on Mother's Day weekend, a summer Open House, a Fall Festival, display and vegetable gardens, undergraduate internships, and youth programs. Among our many gardens and collections

that draw tens of thousands of visitors each year, our historical Holly Collection remains a focal point on many walks and tours on the grounds.

Clayton Leadbetter, Ornamental Breeding Coordinator

Rutgers Gardens— *Where the Future of Horticulture Is Grounded in Our Past* <http://rutgersgardens.rutgers.edu>