

RUTGERS GARDENS

New Brunswick, NJ USDA Hardiness Zone 6B

January 2017 was a mild month in New Jersey, with above-average statewide temperatures. Our total monthly precipitation at Rutgers Gardens was also a bit above state average, with the main weather event being a 5.5" (13.97 cm) snowfall on January 7. February was extremely warm, to the point that it didn't even seem like winter, and somewhat dry. February 7 was the first in a series of days over 60 °F (15.6 °C), where we saw a high of 65 °F (18.3 °C). Although there were a few cool days in the 20 to 30 °F (-6.7 to -1.1 °C) early in the month, warmth returned on the 18th and lasted through the end of the month. From February 18 to March 1 we had an average high temp of 63 °F (17.2 °C), with the warmest reaching 77 °F (25 °C) on February 24. March was very windy, with below average temperatures across the state. In fact, we had our most significant snowfalls of the winter in March, with 2.4" (6.1 cm) on March 10, and another 6" (15.2 cm) from March 13 to 14. Despite the snow we were a bit below average for precipitation this month.

Statewide, April was the first month that was significantly *below* average temperatures in more than a year, although warmth did return after a cold March. While we did receive more than 6" (15.2 cm) of rain, it was mainly from three rain events early in the month and two at the end of the month, which made for a slightly dry month overall. April 8 saw our last freeze of the season, with an overnight low of 31 °F (-0.6 °C). During a wet, cool May, we received more than 7" (17.8 cm) of rain, and had an average daily high of just over 69 °F (20.6 °C), despite a small heatwave mid-month, when the temperatures were over 90 °F (32.2 °C) from May 17 to 19. June was a mixed bag of temperatures and weather. Statewide, precipitation was a little below average, while temperatures were slightly above average; here at Rutgers Gardens, we had an average high of

81.6 °F (27.6 °C), which was about 10 degrees Fahrenheit (5.5 degrees Celsius) above the state average, and about 5" (12.7 cm) of rain, which was significantly *above* the state average. June 13 marked our first high annual temperature of 95 °F (35 °C).

Besides July 20, which tied June 13 at 95 °F (35 °C), the month was relatively mild, only averaging 85.7 °F (29.8 °C), with about average precipitation. August was unusually damp, and not oppressively hot. The monthly average temperature was only 82 °F (27.8 °C), with just one day exceeding 90 °F (32.2 °C), while we received a whopping 7.63" (19.38 cm) of rain—more than 2" (5.1 cm) over the already-above-average statewide precipitation total for the month. September was especially warm, with high temperatures averaging just shy of 80 °F (26.7 °C), and with only 1.78" (4.52 cm) of precipitation, well below the normal average. In keeping with the warm trend, October was unseasonably warm, never reaching a freezing temperature the entire month. With over 5" (12.7 cm) of rain, well above average, it really served to extend the season of many crops and landscape plants in the area.

November came in warm, and we saw our first, sudden frost on November 10, with an overnight low of only 20 °F (−6.7 °C). Coincidentally, it was also the coldest—and, really, the *only* truly cold—day of the month, with a high of 39 °F (3.9 °C). Otherwise, it was a fairly mild month averaging a high of about 55 °F (12.8 °C) here at Rutgers. Precipitation was below average. December was also a varied month, like many this year, with fluctuating temperatures and some snow. Rutgers Gardens received 4.4" (11.2 cm) of snow on December 12, and our monthly snow total of 8.2" (20.8 cm) was a bit above the state average. Temperatures dipped into the 20s (−6.7 °C) for the last four days of the month, with overnight lows in the teens, ending the year on a cold note.

Throughout the year, work continued to combat the vines that infiltrate the trees. Their growth was truly shocking, and we

had a seemingly never-ending battle to keep them under control. We continue to monitor and assess the collection of mature trees, making careful edits to help improve the spacing and density of our historical collection of *Ilex opaca*. A few trees were removed that were duplicates (sometimes one of as many as six), including two specimens each of ‘Manig’, ‘Farage’, and ‘Tom Brown’, as well as individual trees ‘Griscom’, ‘Rick’, ‘Xanthocarpa Boyce Thompson’, ‘Ed Thomas’, and a few additional hybrid crosses of no real aesthetic or genetic value. Strangely, we also had the sudden death of one mature American holly. An unknown cultivar, it was located between the Otkens Memorial Garden and the Rain Garden, planted amongst other *I. opaca* trees that are all doing just fine. But otherwise, the hollies in the garden all put on good growth during the year and were looking well. This year was a great performance year for hollies at Rutgers Gardens. The trees were really loaded with fruit in 2017, and masses of berries persisted throughout the winter and well into the following spring, providing an ample food source for the wildlife.

Our holly collection began as an evaluation of varieties, with many planted as early as the 1940s. It became the foundation of Dr. Elwin Orton’s American Holly (*I. opaca*) breeding program in the 1950s. 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), *I. × 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*, and *I. verticillata*).

The official botanic garden for Rutgers University, Rutgers Gardens encompasses nearly 180 acres of maintained and natural areas, featuring not only gardens, but providing numerous programs for community, faculty, and students to enjoy. Our regular annual events and features include the Spring Flower Fair (Mother's Day weekend), Summer Fest, Solstice Jazz and Wine event, the Gardens Party (featuring presentation of the national Hamilton Award), 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 historic 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>