

BERNHEIM ARBORETUM AND RESEARCH FOREST

Clermont, KY USDA Hardiness Zone 6a

Bernheim Arboretum was fortunate to have had a wonderful growing season this year. Many of our collections, including the *Ilex* collection, pushed major growth during the season. This can be attributed, at least in part, to a rather mild winter followed by seasonably warm temperatures; accompanied by adequate rainfall. Our lowest temperature recorded for 2016 was 4.2 °F (-15.4 °C) degrees in January. The highest temperature of the year was only 94.4 °F (34.6 °C), recorded in June. Overall average highs for the summer were 86.9 °F (30.5 °C), 87.8 °F (31 °C), and 86.6 °F (30.3 °C) in June, July, and August. We received adequate rainfall, totaling over 48" (121.9 cm) for the year. The driest month was October, registering less than 1" (2.5 cm) total precipitation. Luckily, November and December were wetter, insuring that the hollies and other evergreens did not go into winter with dry conditions near the root zone.

Pollinators worked the holly collection's flowers diligently amongst the spring rains, ensuring that fruiting was heavy over all species. Berries lasted well into spring until our usual influx of over 1000 robins devoured the last of the fruit in early April. Our horticulture team has been busy with the continued care of the collection; removing lower limbs that have taken root into the soil in beneath the *Ilex opaca*.

Invasive species are a problem for any arboretum or garden, and ours is no exception. In the past 3 years, we have had oriental bittersweet (*Celastris orbiculatus*) move into our collections. It is a fast growing vine that develops seeds at an early age and may produce thousands of seeds on an individual plant. These seeds are moved around by birds and can readily overtake an area in a few years. The holly collection is a preferred habitat, it seems, for this invasive vine, finding cover in the thick foliage the American hollies provide. We have been working closely with our invasive species team to remove these vines, but seedlings will persist for many years to come.

We have a large specimen *I. opaca* 'Maryland Dwarf' in the collection that was planted in 1976. It has grown to over 22' (6.7 m) at its widest and is 6' (1.8 m) tall. It is always a topic of conversation on holly tours and is notably unique in the landscape. We have found that with age, suckering from the main trunk is noticeably more common and must be kept in check throughout the year. Fruiting is always light, but reliable enough to make this cultivar a showpiece.

In 2017, we will be installing a flowering cherry collection, consisting of over 30 specimens from the genus *Prunus*. We are excited about the coming years and the color these cherries will bring into the Arboretum. This, in part, is possible through grant funding that allowed us to remove all flowering pear and golden rain tree displays that have been deemed invasive. This effort will be ongoing as we work to remove other plants that are becoming pests in our landscapes and threaten our natural forests.

We've had the pleasure of welcoming our first confirmed black bear, within Bernheim's forest, in over 100 years. Our hope is that many others are able to establish and thrive in these protected areas, through the dedication of many staff who keep our lands healthy. We invite you to learn more about Bernheim, our Arboretum collections, educational classes, natural forests, and all that we have to offer at www.bernheim.org.

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