The Hidden Botanical Wonderland of the Southeast—The R.A. Bartlett Research Arboretum

Patrick Franklin and Sean Henry-Charlotte, North Carolina

n the southernmost edge of Charlotte, North Carolina, lies a hidden botanical gem. Most people drive by the neatly trimmed trees tucked behind a clean white border fence without straying from their daily routines or looking up from the latest Facebook alerts chirping from ubiquitous smart phones, but to people in the know, plant people, it's a visual wonderland. The R.A. Bartlett Tree Research Laboratories and Arboretum is a private facility that encompasses 350 acres of prestige gardens, working research plots, and fantastic collections of rare and unusual plants. However, if you "know the right person", they just might graciously open the gates to plant scientists, scholars, Master Gardeners, and other botanical aficionados. (See Photo 1.)

The research lab is owned and operated by the F.A. Bartlett Tree Experts company, which was founded by Francis A. Bartlett in 1907. In 1913, F.A. acquired a 60-acre farm in Stamford, CT, with large hardwood trees and an orchard containing very old apple trees that were easily 100-150 years old. This new property would allow him to begin his scientific and experimental work with trees, while also allowing opportunities to train his employees in tree climbing techniques and tree care practices. It grew and expanded to become an official research station and company training facility in 1927. They enjoyed several decades there advancing the science of arboriculture, but by the early 1960s state taxes on the land became too onerous and the company was forced to look for a new place to relocate its research facilities. Ironically the lab grounds were sold to the state of Connecticut and a portion of the original land still exists as the Bartlett Arboretum and Gardens; however, it is not affiliated with the company.

After an extensive search throughout the eastern portion of the United States,



▲ Photo 1—Aerial view of The Bartlett Tree Research Lab, Charlotte, NC.

Photo 2—A glade within the Bartlett Arboretum, flanked by evergreen and mature deciduous azaleas and specimen trees.



Robert Bartlett Sr., son of the founder, narrowed it down to several cities in the upper South. He was looking for a location that could grow both northern and southern species, was close to an airport with good transportation hubs, and had a reliable water source. By 1965 he had found the perfect place-an old horse farm with three ponds, rolling hills, and a nice mixture of pasture and native woodlands. Work began converting an old horse barn into a modern research laboratory, planting new trees, and commencing experiments. Today, more than 50 years have passed, and under the leadership of Robert Bartlett Jr., grandson of the founder, the laboratory has expanded, and the arboretum grounds have blossomed into a living museum.



Photo 3—One of several inclined paths leading up "Rhodie Hill" at Bartlett Arboretum.

Today our facility serves four basic purposes-plant and soil diagnostics, research, education, and maintaining a living collection of plants in the arboretum. Another primary function of the Bartlett Tree Research Laboratories is to provide intense technical and career training classes to the Bartlett representatives, technicians, and workers who care for the trees and shrubs on client properties. The campus has a fully equipped diagnostics laboratory which processes over 10,000 plant samples and 15,000 soil samples each year from field offices throughout the US and Canada. The research station is staffed with a number of PhD researchers who conduct various cutting edge arboriculture experiments on purpose-planted test plots to investigate new techniques to manage and care for trees and shrubs. There is an extensive library with books that cover every aspect of gardening, insect and disease identification, forestry practices, and plant identification from all over the world. The education center serves both as a place for company training as well as an industry meeting space for international events. Finally, the Arboretum, which also comprises a bird sanctuary, serves as a living classroom and botanical library with extensive gardens and collections. To date, there are over 21,000 accessioned plants in 14 major collections, numerous display gardens, with new additions being made every year.

As an accredited level IV class Arboretum, a few of our highlights include some of the best collections of Rhododendrons, Oaks, and conifers on the east coast, the largest collection of Magnolia cultivars in the world, and the third largest collection of Holly in the United States. There are also extensive collections of Elm, Crape Myrtle, Crabapple, Camellias, Maple, Witch Hazel, Dogwood, Linden, and Boxwood. We aim to actively develop, curate and manage a wide range of showcase plant material, while trialing various plant species for their hardiness, disease tolerance and ornamental value.

A favorite location to both employees and visitors alike is what we nickname "Rhodie Hill." This is our primary *Ericaceae* collection, interspersed with other shade loving bloomers such as Camellia, Pieris, and Dogwood among others. The collection of Ericaceae contains 11 Genera, 152 Species, over 1,100 Taxa, and over 5,000 accessioned plants! The hill is situated above two ponds with a high native tree canopy and a northeastern exposure. This creates a unique microclimate that along with miles of irrigation pipes allows us to successfully grow healthy rhododendron species in Charlotte's hot humid climate. In the summer, if you walk or drive a cart along the winding trails there is a noticeably pleasant drop

in temperature at the site, sometimes as much as 10 degrees. In the spring, this hillside bursts with a myriad of colorful blooms that seem to peek out from behind the trunks of the large shade trees inviting you to keep exploring what is around the next corner. With the wide range of plants established on Rhodie Hill, there is something in bloom just about all year round. (See Photos 2 & 3.)

A few of our latest installations at the arboretum are the 9-11 Memorial Garden, Tree Peony Garden, and the beginning phases of a Piedmont Prairie. Bartlett has been integral in taking care of the trees at the World Trade Center site in New York City, and worked with officials to help with the preservation of the Survivor Tree (a Bradford Pear, Pyrus callervana 'Bradford') and cloning of this lone specimen. Using seedlings from these clones we have constructed an arched dome that serves as a centerpiece of the memorial garden, which is designed to provide guests with a peaceful and relaxing place to reflect. The arboretum is also home to numerous rare and endangered plant species such as Franklinia alatamaha, Torrvea taxifolia, Abies nebrodensis, Magnolia macrophylla, Cornus wilsoniana, Cupressus vietnamensis, and Quercus oglethorpensis.

The property has been purposely planted to take advantage of North Carolina's four distinct seasons. In late winter, one can see an entire field of Magnolias clothed in blooms of various hues of pinks, purples, whites, and yellows. You can also find witch hazels and camellias blooming throughout the property that brighten up every corner, announcing spring is on its way. As spring approaches, the redbuds begin to put on a fiery display of color, soon followed by the dogwoods that seem to light up the forest everywhere you turn. The crabapples and cherries unleash their torrent of colorful blooms creating amazing vistas, and Japanese maples emit a glow with their new growth. This is also when Rhodie Hill comes alive with tons of deciduous and evergreen azaleas, rhododendrons, and bluebells that create a kaleidoscope of color. The hollies also begin to bloom and emit the sweetest fragrance that will stop you in your tracks, to take a

deep breath and enjoy the beauty that surrounds you. During this time, there are also numerous conifers pushing new growth with some of the most intense colors of blues and golds seen nowhere else. As the high temperatures return, we find ourselves looking to the amazing collection of crape myrtles that bloom with just as many colors as the azaleas and provide interest when everything else is coping with the summer heat. Eventually fall returns and takes us on another rollercoaster ride of colors as the leaves begin to change to brilliant reds, yellows and oranges, with the oaks, hickories, and maples. The cycle then repeats itself; however, as the plants grow larger and more are added to the collections, the show becomes better every year!

Patrick Franklin Patrick has been working with trees most of his life. Growing up in the Sandhills region of eastern North Carolina, he has always enjoyed being in the forest and working with plants. After earning his BBA, he applied to work in Arboriculture at one of the offices for Bartlett Tree Experts. Patrick is the great grandson of F.A. Bartlett and the 4th generation to be involved in the family business caring for trees. He is proud to be part of a company with an impressive history dating back to 1907. After spending 10 years in Charleston, SC, managing trees on clients' properties, Patrick decided to focus on an MBA degree, which he received with honors. He then moved to Charlotte, NC, in 2013 and began work at the R.A. Bartlett Tree Research Laboratories and Arboretum where he is currently the Vice President of Special Operations. Patrick is active in acquiring plants for many of the collections at the Arboretum and is proud to continue the family business of caring for trees and the tradition of collecting plants from around the world.

Sean Henry is a Research Technician at the Bartlett Tree Research Laboratory and Arboretum in Charlotte, NC. Originally from the Philadelphia area, he has had a lifelong passion for horticulture, particularly edible landscapes. He is a commercially licensed drone pilot and has been studying the use of drones in arboriculture for the past five years. In addition to flying UAS (Unmanned Aircraft Systems), he works with Dr. Tom Smiley studying soils and fertilizers, lightning protection in trees, cabling, bracing, and conducting tests on drought resistance, tree growth regulators, and saltwater intrusion remediation.



Chapter News and New Members

Arkansas Chapter

The chapter welcomes new member Paula Jackson, Hot Springs National Park, Arkansas.

Ben Morrison Chapter

Diane Reinke-Secretary

The Ben Morrison Chapter has no activities to report for the summer issue. We haven't met since our Christmas party, and no activities are planned for the next several months because of uncertainties caused by the pandemic.

Central Carolinas Chapter

Kevin McCorkle—President

Despite the inability to currently meet as a group due to the on-going public health crisis, we continue to plan for our chapter's hosting of the annual ASA Convention scheduled for April of 2021.

We re-visited our field trip destinations again this year during the planned convention week to assure ourselves of what we believe to be the most ideal window of time for touring. We found them all to be knock-your-socks-off spectacular! Let's hope Mother Nature will agree to the timing next Spring.

Our convention plant sale inventory continues to grow. We are pleased with the diversity of plant selections assembled thus far. Included are hard to find deciduous azaleas from ASA Legacy Project hybridizers Kelly Strickland and Earl Sommerville, complex hybrid seedings developed by the Perkins (each one unique and so fragrant), many select Gregory Bald seedlings via tissue culture, an extensive variety of evergreen azaleas from Legacy hybridizers and beyond, and a mix of native companion plants. (See Photo 1.) We are thankful to skillful ASA member plantsmen Andy Whipple, Robert Thau, J. Jackson and Lindy Johnson for their contributions to our plant offerings.

