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Observation of growth data on *Hydrangea quercifolia*

Hydrangea quercifolia, oakleaf hydrangea, is a multistem shrub native to the southeastern United States. Plants within the *Hydrangea* genus are overall popular flowering plants. However, oakleaf hydrangea are not as well known, with little known about their genetic or horticultural information. Conducting horticultural characterization of oakleaf hydrangea plants over time will aid in future breeding efforts and to understand what characteristics are displayed within the current populations. Compact genotypes of ornamental plants are often desired. For this study, growth data of 14 populations of oakleaf hydrangea were observed at the Otis L. Floyd Nursery Research Center in McMinnville Tennessee over a 3-year period. There were 14 populations which were in 6 different blocks and 741 total plants. Plants were in a random block design. Growth data was taken in May and October of 2019, 2020, and 2021. In 2019, populations 11, 18, 21, and 22 had the lowest amount of height growth while populations 2, 3, 4, 5, and 20 had the greatest amount of height growth. In 2020, population 3 had the lowest height growth while population 12 had the most height growth. In 2021, population 11 and 23 had the lowest height growth and population 14 had the greatest amount of height growth. Two-way ANOVA was used to check the significance of block, population, and block × population on growth data. In both months of each year, block and population had a significant effect on height and width growth data. Block × population interaction was significant on both height and width in May of 2019 and October of 2021. In May 2020 and 2021, and October 2020, block × population had a significant effect on width. This study showed the variation of growth data between populations and can aid in supplementing future research for further breeding efforts of oakleaf hydrangea cultivars.