

December 2023

Tree Hardiness Zone, Tree Heat Zone, & Tree Planting Zone Maps For Georgia.

Dr. Kim D. Coder, Professor of Tree Biology & Health Care / University Hill Fellow University of Georgia Warnell School of Forestry & Natural Resources

The three maps included here represent the current tree hardiness zone map for Georgia, the tree heat zone map of Georgia, and the Coder tree planting zone map for Georgia. Tree hardiness zones are based upon the lowest average Winter temperature to which an area is subject. Hardiness zones have changed significantly over the last three decades, with zones moving Northward and upward in elevation. Heat zones represent areas with similar average number of days per year exceeding 86°F. Tree planting zones represent areas of the state which share common temperature and precipitation environments.

Tree species presence, range expansion / contraction, and long term success are associated with lowest Winter temperatures, area heat loads, and normal temperature and precipitation. All of these inputs are rapidly changing due to climate variability. For example, in the last 11 years, hardiness zone have moved Northward in the state a full numeric half zone (i.e. hundreds of miles.)

Figure 1 map shows the current tree hardiness zone areas and boundaries across Georgia. Hardiness zones are based upon lowest Winter temperatures.

Figure 2 map presents tree heat zones across Georgia. Heat zones represent the largest number of days above 86°F annually. The heat zone map is now quite old and needs updating.

Figure 3 map shows the Coder tree planting zones of Georgia. Planting zones represent areas with similar normal precipitation and temperatures regimes.

Citation:

Coder, Kim D. 2023. Tree Hardiness Zone, Tree Heat Zone, & Tree Planting Zone Maps For Georgia. University of Georgia, Warnell School of Forestry & Natural Resources Outreach Factsheet WSFNR-23-49C. Pp.4.

The University of Georgia Warnell School of Forestry and Natural Resources offers educational programs, assistance, and materials to all people without regard to race, color, national origin, age, gender, or disability.

The University of Georgia is committed to principles of equal opportunity and affirmative action.





Figure 1: Generalized hardiness zone map of Georgia 2023 based upon lowest Winter temperature.





Figure 2: Georgia tree heat zones based upon the average number of days per year with temperatures above 86°F.





Figure 3: Coder tree planting zones of Georgia, based upon normal temperature & precipitation similarity clusters.