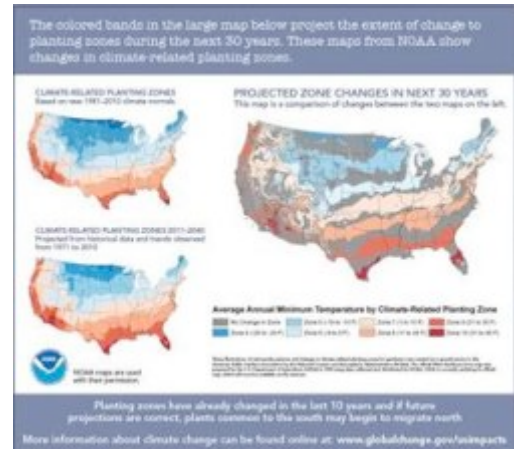


A Changing Climate, a Changing Landscape

With two Connecticut cities breaking all-time record high temperatures this July, landscapers and gardeners worry about the effects of these increasingly warm seasons on our local plant life. Recently, the National Oceanic and Atmospheric Administration (NOAA) teamed up with the American Public Gardens Association (APGA) to help the public understand the effects of global climate change on gardens. By using their updated national hardiness zones map, a map separating the country into eleven different temperature regions for use as a planting guide, gardeners can see the blatant increase in annual low temperatures throughout North America. Connecticut, which was mainly in zones five and six when the last chart was made in 1990, now has areas added to zone seven, a zone which is shared by landscapes as far south as Texas.



The NOAA has embarked on a campaign to add these climate zone charts with predicted future shifts, as well as other climate-science information, to public gardens in order to increase awareness about climate change. The most notable partnership between NOAA and a public garden has been at Longwood Gardens in Kennett Square, Pennsylvania. Longwood gardens has added the charts to their exhibits, as well as sponsored climate change research. In a press release, the Longwood Gardens Director, Paul Redman, stated that their researchers had, “observed that plants are flowering earlier on average 1 day per decade over the last 150 years.”



These climate changes are not only affecting the blooming times for local varieties of our favorite plants and trees, but also inviting new species north. Unfortunately, the types of plants that spread most quickly into new areas tend to be the most dangerous. The Kudzu vine, an invasive vine that can grow up to one foot per day, has been found in Massachusetts and as far north as Canada. Known as “the vine that ate the South,” kudzu smothers and kills trees and plants around it. Although the kudzu vine is not very tolerant to the cold winter frosts typical to New

England, the steady increase in average annual low temperatures in the north creates a new possible threat to the northeastern forests.

In addition, harmful invasive insects that would previously been subdued by cold winter frosts now populate more easily. Insects like the hemlock woolly adelgid, which suck the sap out of the hemlock tree, killing the nutrient supply, benefit from these warmer temperatures, and are now able to survive the winters in the northeast. Although they have been spotted in the Northeast since 1950, the adelgid have not been able to spread if the mean winter temperature is below 5 °C. According to models from a study done at the University of Massachusetts, almost all of the



Northeast will experience winters warmer than this by the end of the century. With warmer temperatures enabling a production of two generations per year, the adelgid will become a real threat to the hemlock population.

On the brighter side, this shift in planting zones allows for integration of new and interesting types of plants into our landscape. The induction of the Connecticut shoreline into zone seven opens



new doors to warmer climate flowers, shrubs, and trees. With these warmer average annual temperatures, the broadleaf evergreen magnolia can now grow and thrive even through our harsh New England winters. In addition, we can now consider adding add the beautiful summer flowering Crape Myrtle tree to our gardens. Warmer temperatures might be threatening, but they can also offer new choices for making our gardens beautiful. So as the climate changes, we can prepare for new gardening challenges and also celebrate new gardening opportunities.