

Climate Connection

When you reduce the size of your lawn and increase the variety and abundance of native plants in your yard, you have a real and immediate impact on climate change. Here's why:

Locking Up Carbon

By planting an oak in your yard, you help reduce greenhouse gasses. Hard to believe? Entomologist Doug Tallamy crunches the numbers in his recent book, *The Living Landscape*, co-authored with Rick Darke.

After 55 years of growing, Tallamy notes, an oak tree will remove some 43,210 pounds of carbon from the atmosphere, storing the carbon in its trunk and branches. By 75 years, that number increases to 85,098 pounds.

Imagine if a thousand other landowners in your town or city each planted an oak. And if a thousand communities across the country did the same. Those trees would store more than 85 billion pounds of carbon in their tree fiber. All from the act of planting of a single tree.

According to the U.S. Energy Information Administration, burning a gallon of gasoline emits about 19.64 pounds of carbon dioxide (CO₂), and burning a gallon of diesel releases about 22.38 pounds of CO₂. After 75 years, a single oak has absorbed the equivalent CO₂ of 4333 gallons of combusted gasoline, enough to carry an average (25 mpg) car 108,322 miles.

According to Tallamy's research, the average suburban lot grows about 10% of its potential tree biomass. What about your yard? Is it possible to replace a portion of lawn with native trees, shrubs, and forbs? By doing so, you will help pull a significant amount of carbon from the atmosphere, where it's causing big problems, and convert it to plant biomass, where it can do a whole lot of good—for our climate and for birds.

Urban Cool

According to the Urban Climate Lab (UCL) at Georgia Tech University, urban areas are warming 50-100% more rapidly than rural areas due to the immense expanse of heat-absorbing roofs, roads, and other human-made impervious surfaces. Urban heat waves are steadily increasing in severity and duration. What's more, most current climate action plans will yield no measurable benefits for extreme heat in urban areas.

How do we counter the disproportionately rapid temperature rise of urban areas? A key part of UCL's recommended solutions is planting vegetation, especially trees. Trees shade those heat-absorbing urban surfaces, actively cool the air through evapotranspiration, and counter climate change by turning atmospheric carbon into wood fiber.

But what if you don't have a yard at your city home? You can make a difference by hanging a window box outside your window, by growing a container garden on your patio or by planting a rooftop garden. And when you do, be sure to grow native species.

Fewer Climate-change Pollutants

Every week during the growing season, Americans mow 40 million acres of grass—an area eight times the size of New Jersey. Our country's mowers and weed-whackers burn 800 million gallons of gasoline per year. When you reduce the size of your lawn, you reduce the amount of time your mower is running. If you use a gas mower, that means your mower will be emitting fewer greenhouse gases.