

TREES

“Once there was a tree, and she loved a little boy...”

-Shel Silverstein



Image source: “The Giving Tree” by Shel Silverstein

Through **photosynthesis** a tree’s leaves take in carbon dioxide and water and use energy from the sun to convert these resources into chemical compounds such as sugars that feed the tree. A by-product of this chemical reaction is oxygen.¹ In addition, forests deliver pure, clean water by filtering rainwater as it moves through the soil; tree roots keep sediment from reaching streams and absorb nutrients that would otherwise pollute waterways.²

Deforestation is the purposeful clearing of forested land for agriculture, livestock, or to obtain wood for fuel, manufacturing, and construction. Once most of the 2 billion acres of land in what is now the continental United States was covered in forest, but after an intense period of deforestation between 1600 and 1900 as trees were converted to fuel, building materials, and land was cleared for agriculture.³ By 1870 only about half of the forests in the eastern part of the continent were still standing.⁴ Fortunately, since the 1940s the forested area in the U.S. has been increasing and today the country has over 700 million acres of forest land (which covers about 1/3 of the country), 20 percent of which is managed by the U.S. Forest Service.⁵ There are boreal snow forests in Alaska; deciduous forests in the eastern United States that produce beautiful fall foliage; pine plantations in the southern United States; dry coniferous forests in the western United States; temperate rainforests on the West Coast; and tropical rainforests of Puerto Rico and in Hawaii.

In 2021, over 50,000 **wildfires** whether human-induced or natural (lightning) burned over 7 million acres in the United States and cost over \$4 billion to suppress.⁶

¹ “The Power of One Tree - The Very Air We Breathe,” by Joanna Mounce Stancil, U.S. Forest Service in Forestry Jun 03, 2019. Available at: <https://www.usda.gov/media/blog/2015/03/17/power-one-tree-very-air-we-breathe>, Retrieved November 1, 2022.

² <https://www.fs.usda.gov/features/forests-faucets-where-does-your-drinking-water-come>

³ <https://education.seattlepi.com/rates-deforestation-reforestation-us-3804.html>

⁴ <https://education.nationalgeographic.org/resource/deforestation>, Retrieved November 8, 2022.

⁵ <https://www.fs.usda.gov/speeches/state-forests-and-forestry-united-states-1>, Retrieved November 1, 2022.

⁶ <https://www.nifc.gov/fire-information/statistics>, Retrieved November 1, 2022