

City Street Trees Struggle to Thrive

By, Skye
BSI 4-402
12/20

City Street Trees Struggle to Thrive

Did you ever stop and think about the trees suffering from their surroundings in the city?

It's not always easy for something natural to coexist within an environment developed for humans. The reasons that it is hard for trees to thrive in the city are happening above the ground, on the ground, and below the ground. Above the ground examples include pollution, big trucks breaking branches, and too much heat. Examples on the ground include winter de-icing salts, small tree pits, and poor drainage. Below the ground trees are additionally stressed by poor soil, not enough water, and not enough air for roots next to streets.

Some of the reasons that it is hard for trees to thrive in the city are happening above the ground. In an article about city trees Mike Ecker, a director of a place where trees are grown and studied said, "city trees have a lot more stress than those in rural areas, plants in cities have to deal with increased heat from concrete, white reflective structures, brick and stone that retain and radiate heat, and asphalt and parked cars."

Highways are also very hard on trees in the city. It's hard for trees next to streets and highways because big trucks can knock down tree branches and hurt the trees. Also, all of the pollution that comes out of the cars is bad for the trees. Yes trees do eat carbon dioxide to live but too much pollution is unhealthy for trees.

Another significant above the ground stress is heat. Heat radiated from buildings, sidewalks, streets, and car tops increases the natural air temperature in cities. The hotter the air is around the canopy of a tree, the quicker the tree's water dries out. This makes the tree's canopy shrivel and fall. This is double bad because healthy leafy tree canopies create shade that makes the sidewalk in the summer more comfortable for people who live in the city.

Other conditions that make it hard for trees to thrive exist at the ground. Small tree pits in the sidewalk don't allow enough room for trees to grow happily. Also, there is not enough area for the soil to drain all of the water, so that makes the circumstances even harder on the trees because then the soil can become waterlogged. Also, less soil means less nutrients, and trees need nutrients to grow.

There is a tree at my bus stop. It was planted by the city. Nobody waters it, nobody takes care of it, and there's trash all over the soil. There is not enough space for it to grow and dogs pee and poop on it all the time. I feel that this tree is very unhealthy, and it gets treated so poorly! This makes it very difficult for this tree to thrive in its conditions in the city.

Additional reasons that it's hard for trees to thrive in the city are caused by circumstances below the ground. Trees are additionally stressed by not enough water, poor soil, not enough air for roots below sidewalks and streets, and de-icing salts. Trees need lots of water. If we don't get at least one inch of rain per week, people have to provide the water. The city doesn't water the trees so unless it rains enough the soil will be too dry and the trees will become less healthy and may die.

Mike Ecker also said that city soil is "compacted, poorly drained, deficient in nutrients, and excess construction debris has been buried in it." It's hard for trees to grow when their roots are under streets because there is not enough air and the roots could be squished. If trees are in spaces where their roots are compacted it is hard for them to grow and thrive well.

During the winter streets and sidewalks get icy. So shopkeepers and the city put down salt to melt the ice to make walking and driving less slippery and safer. Then the salt melts the ice and turns the ice into saltwater. That salt water drains into tree pits and the soil soaks up the salt water. Too much salt is toxic to trees and causes their leaves to burn. This is another example of a conflict between what the people and the trees in the city need.

As you know trees have a very hard time thriving in the city for several reasons, existing above, at, and below the ground. Have you ever thought about what you could do to help trees in need? I hope you learned lots from this essay and I hope you will do something to help trees in the city.