Help Soil Help Your Plants

There is no quick solution to the problems of unhealthy and/or compacted soil. There are some effective long-term treatments and suggestions that may help.

Build It, and They Will Thrive

- Add a 3 inch layer of wood chip mulch over compacted areas
- Follow the rule of 3 when mulching around trees! Keep mulch 3 inches away from the tree trunk, 3 inches deep, and in a 3 feet wide circle around tree
- Plant deeply rooting native perennials to help aerate soil
- Leave your leaves and yard clippings to degrade naturally - free compost!

FREE Organic Materials for Philly Residents

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- Do not drive or walk on compacted soil, especially when wet
- Do not add fertilizer to compacted soil, it will not help
- Do not plant turf grass with shallow root systems
- Most importantly, don't give up! Your trees and plants will benefit greatly from your efforts.

The City of Arborly Love

Read the Philly Tree Plan Here!

Have a question? Want to work with us on a project in your neighborhood?

Email info@treephilly.org
or leave us a message at
215-683-0217

FIND YOUR PATH
PHILADELPHIA PARKS & RECREATION

FAIRMOUNT PARK CONSERVANCY

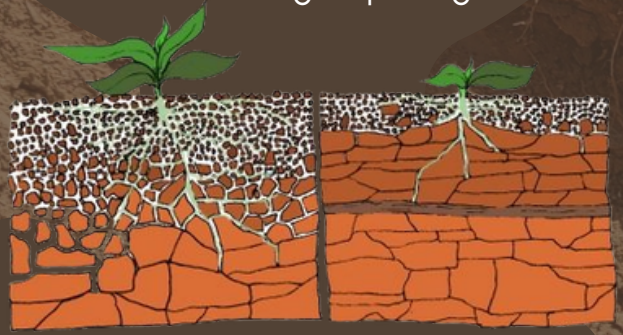
INVEST IN THE HEALTH OF YOUR URBAN SOIL

IT'S ALIVE!

Tree Philly

What is "urban soil"?

In Philly, our soil is heavily altered by human activity. During major construction, the top layers of soil are first scraped off, then the lower layers are compacted to create a level surface for building or paving.



natural structure compacted

Half the volume of healthy soil is open space holding air and water. In urban soil, the open space is crushed out. This destroys the soil structure, limiting how easily roots grow.

Urban soils may contain higher levels of pollutants than natural soils, as well as building debris and garbage.

Soils that have suffered compaction will have a flat or horizontal structure

Soil Composition

Soil is made of air, water, organic material, and mineral particles. The interactions between these substances give soil its structure.

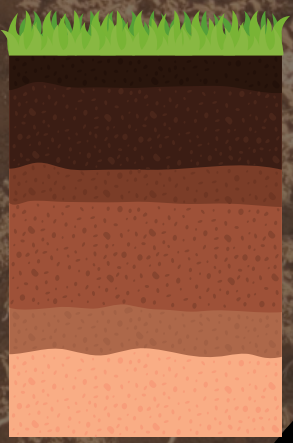
When you dig into soil and lift "clumps" of dirt, those clumps are called soil aggregates. The space between soil aggregates in the ground is where roots grow easily; they can access the air, nutrients and water they need. Most organic matter can be found in the top two feet of soil.

Soil can be very different from place to place, even in two spots in the same yard. It's impossible to know the nutrient content or exact type of soil you have without an official soil test.

Order a Soil Test from Penn State Extension

Soils... Have Layers

Naturally formed soil has multiple layers called horizons that are distinctly different visually and in composition.



The top layer of natural soil is the darkest and contains the most organic matter, air, and water holding capacity. Most tree roots can be found less than 2 feet deep.

Deep layers in soil have less open space to hold oxygen and water. The deeper you go, the higher the concentrations of CO_2, minerals, and other inorganic materials.