

FACT SHEET

Why use Forest Floor Service?

The majority of a tree's biomass is underground in its root system. Since trees cannot move they must survive by adapting to the soil conditions in which they are placed. Urban situations stress a tree's ability to maintain and regenerate root health, which is reflected in its above ground appearance. Aspen Arboriculture has developed a Forest Floor Service that promotes fibrous root growth for greater capacity to acquire water and nutrients from urban soils, resulting in increased tree health and vigor.



WHERE ARE THE ROOTS?



COMPACT URBAN SOIL.



NEW STERILE LANDSCAPE.

Site Limitations

- Trees planted in urban areas are faced with many challenges that affect their ability to grow and remain healthy. Lawns, building foundations, driveways, streets, sidewalks, landscaped areas, and other obstacles limit the expansion of roots and reduce a tree's ability to absorb water and nutrients.

Soil Conditions

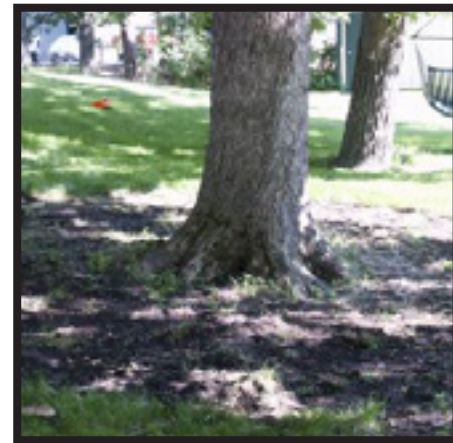
- Urban soils become compacted from construction and other human activities. Compacted soil is difficult for tree roots to penetrate and has less oxygen and water which are critical to tree health. Trees living in compacted soils are smaller, experience more health problems, and die at a much younger age if compaction is not treated.

Nutritional Needs

- Most urban yards have trees planted in restrictive root zones. In addition, the removal of top soil during construction creates a lack of organic microbial activity critical to the release of essential nutrients necessary for tree health.

The Forest Floor Service Process

- 1) Root collar excavations: structural roots around the base of the tree are exposed using particular care not to disrupt the fine root system.
- 2) Root health and structure are evaluated and treated as necessary. Girdling roots may be removed and redirection barriers placed adjacent to the cut to prevent new roots from continuing the circling pattern.
- 3) Roots within a 3-7 foot radius of the trunk are exposed using a high volume air spade.
- 4) Exposed roots are treated with organic matter that has been specifically formulated to promote root growth. Each formula is created specifically for individual trees based upon species, age and existing soil conditions. Urban trees live an average of 1/4 as long and have 1/3 the stored energy of a tree growing in a natural forest.



TURF IS REMOVED AND EARLY STAGE IS COMPLETED



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The Forest Floor Service Process

- 5) Mulch is placed over the root enhancement zone and saturated with water. It is critical to keep the soil in this area watered for two weeks to maintain a moist soil environment. This activates soil microorganisms that initiate the root enhancement process.
- 6) As conditions change, care needs to be adjusted to fit the requirements of the tree. An annual examination of the fine roots and soil quality is recommended.

Activated Organic Material

Activated Organic Material is a mixture of biologically active organic compounds derived from prescriptive composting processes along with Biochar, moisture management particles, and our Puritea program.

Originally created by plants and other organisms, these compounds play a variety of roles in many biological cycles. The nutrients released from these former plants are 100% natural because of their original formation through photosynthesis.

Different mixtures are available for both fast and slow release of nutrients. Some formulations also have a higher nutrient content than others because of their ingredients. For example, the Activated Organic Material used on a residential lawn is a slower-release formula that fertilizes your lawn as it is improving the biological activity in the soil.

Biochar

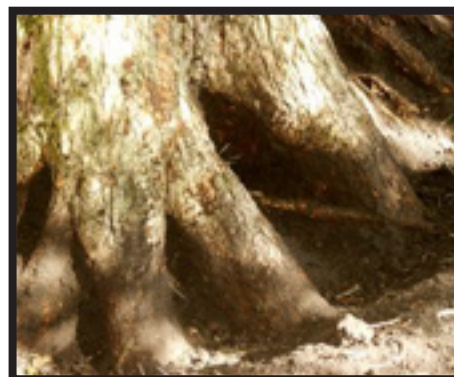
Biochar is charcoal made from woody plant material. It is used as a soil amendment to improve soil quality.

Charcoal has long been used for its ability to absorb odors and toxins. Additions of biochar to soils increases the water retention of sandy soils and improves porosity of clay soils.

Biochar also helps combat climate change as it converts urban wood waste to a stable form of soil carbon; by creating healthier growing trees it helps sequester additional carbon in the form of woody tree tissue.



INCORPORATING PRESCRIPTION ORGANIC MATTER



Root system in typical compacted urban soil.

Root system with Prescriptive Organic Matter applied.



BIOCHAR SAMPLE