

AirSpade Customer Story: Green Extraction Technologies, LLC

Headquarters: Carol Stream, Illinois
Serving: Illinois, Wisconsin, Indiana and Michigan
Team size: 7



Company Story

Green Extraction Technologies, LLC, is an arboricultural specialist that brings a professional and scientific approach to tree treatment and service. It offers expert tree care and education on protecting and preserving the urban forest. Green Extraction Technologies CEO and International Society of Arboriculture Certified Arborist Daniel Miraval explained the impact that urban development and cultural green-industry practices have on soil and trees:

Clearing land for development has a long-term impact on the health of trees and their root systems. Soil is tamped down for building and heavy equipment is transported across what is known as “the critical root zone.” This action removes air pockets – also known as pore space – that support a healthy environment for root growth, tree vigor and survivability, and that’s just for existing trees, he says. Beyond that trees are often unknowingly planted too deeply due to excess soil covering structural roots when trees are grown in the nursery. “It’s not that anyone purposefully adds dirt onto trees to hurt them,” says Miraval. “It’s just often a by-product of cultivation and growing practices.”

In addition, he says, “there is this horrible practice called Volcano Mulching that is occurring and is an epidemic problem in the urban forest.” Often maintenance companies unknowingly add excessive

amounts of mulch to trees, piling it up and creating what looks like a volcano, further smothering the roots. The trees then either start growing in the wrong direction, causing stem-girdling roots that choke the tree, or the roots are unable to breath and die. “AirSpade tools give us the ability to remediate these issues if caught early and reintroduce life to trees and soil that face many challenges in the urban environment and have been disrupted by urban development,” he says.

Miraval first started using the AirSpade in 2014 to improve urban situations where trees need to not only live but thrive. “The AirSpade tool allows us to be a multidimensional tree care and tree service company.” Miraval’s early use of the AirSpade 2000 and “phenomenal visible results” inspired the launch of a division focused on root collar excavation work for Green Extraction Technologies, LLC. The AirSpade 2000 has offered many opportunities for the urban forestry firm to ensure the longevity of important resources like trees, but also to help companies working in and around existing green spaces to develop lands more responsibly.

Applications

Safely Aerate Soil in Tree Root Zone

An urban environment is not hospitable to trees. During development, trees are cut down and soil compacted. After development is completed, what is left is considered dead dirt that lacks the necessary air pockets and beneficial microbes that remaining trees need to thrive. The AirSpade 2000 helps Miraval’s team to re-establish a healthy soil environment through aeration without hurting the existing root structures. “The AirSpade 2000 is the most magical tool on the planet,” he said.

Diagnose Root System Issues

Green Extraction Technologies will often get calls from homeowners looking to remove trees because they think that the root system is causing damage to driveways and foundations. Rather than unnecessarily remove a tree, Miraval's team uses the AirSpade 2000 to safely excavate soil to discover the cause of damage. If roots are the problem, they can alleviate it by cleanly cutting the roots and avoiding damage to the tree.

Amend Root Collar Soil

Tree nurseries have cultivating practices through which the bottom of the tree or root flare is buried underground. Landscapers are often unfamiliar with the science behind tree health and plant the tree too deeply or with too much dirt or mulch on the root ball. Homeowners then plant the trees too deeply, not allowing for proper aeration and water penetration. As the tree grows older, it becomes weaker and damaged and eventually dies prematurely. The AirSpade 2000 safely removes unwanted material from the root ball without damaging the tree's veins and roots.

Improved Safety with Dead Man Trigger

The AirSpade 2000 is designed for safety, which Miraval appreciates. If one of his employees were to slip and fall, the handle comes equipped with technology that would immediately stop the tool, preventing accident and injury. Beyond that, Miraval likes the patented nozzles that can control the volume of air that is released. This feature helps control noise pollution, as well as keep debris contained in a smaller area. ▲



AirSpade 2000

Using the power of compressed air, AirSpade 2000 uncovers underground objects, utility lines or even sensitive tree roots without harm. Featuring the high-performance, patented supersonic nozzle, AirSpade 2000 digs faster and more efficiently than competitive tools. It has rugged, lightweight construction, and a dead-man trigger to ensure safe operation.

About AirSpade

The AirSpade Division of Guardair has been supplying air excavation tools to arborists, landscapers and utilities for more than 30 years. Manufactured exclusively in the United States, thousands of AirSpade tools are in use worldwide. Combining durability, safety, performance and operator comfort, AirSpade has become the industry standard.

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