



Combat Compaction, Improve Stormwater Infiltration through Soil Aeration

As residential lawns or community parks age and sustain heavy use from activities like foot traffic, sports, pets, and vehicle traffic, the pore space within the soil that would normally hold air or water becomes compacted. Roots require oxygen to grow and absorb nutrients and water, and cannot penetrate compacted soils as easily or get the nutrients and water they need for healthy growth. Water falling on the surface of a compacted soil cannot infiltrate, which can dramatically increase stormwater runoff in residential areas.

Core aeration reintroduces oxygen and pore space to a soil by removing small cores of soil from the lawn. Core aeration, performed once a year, is a recommended lawn care practice on compacted soils. Poorly drained or wet areas and clay soils are much easier to compact than sandy soils. Since most of the soils in Chagrin River communities are poorly draining, heavy clay soils, aeration can be an important factor in both maintaining a healthy lawn and reducing the amount of stormwater entering storm drains and streams in the Chagrin River watershed.

Core aeration can benefit your lawn and community by:

- Increasing the activity of soil microorganisms that decompose thatch.
- Increasing water, nutrient and oxygen movement into the soil.
- Allowing plants to grow deeper, healthier roots.
- Enhancing infiltration of rainfall, irrigation, and stormwater runoff.
- Helping prevent fertilizer and pesticide runoff from overly compacted areas.

Aeration is useful on older, compacted soils, and should not be performed for at least a year on newly-sodded or seeded lawns. If you have any questions about lawn aeration, you can contact your local Soil and Water Conservation District or OSU Extension office.