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Weekly Newsletter
from Agresource Inc.
for turning waste into
opportunity

Whole Cycle Tuesday

"Nature does not hurry, yet everything is accomplished."
– Lao Tzu

Takeaway

The best solution is prevention. Consider these simple steps:

- Delay heavy traffic until the ground firms up
- Use designated travel paths to limit damage to one area
- Spread loads with mats, gravel, or wider tires when possible
- Improve drainage in chronically wet areas
- Improve soil structure with balanced particle size distribution
- Use lighter equipment when conditions are soft

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Spring Soil Compaction: Why Soft Ground Can Create Long-Term Problems

What Is Soil Compaction?

Soil compaction occurs when soil particles are pressed tightly together, reducing the pore space between them. Those tiny spaces are important because they hold air, water, and nutrients that roots and beneficial organisms need to thrive. When soil becomes compacted, it becomes denser, harder, and less able to support healthy plant growth or absorb water efficiently. Compaction is commonly caused by repeated traffic from trucks, loaders, trailers, lawn equipment, and even foot traffic, especially when the soil is wet.

Why Spring Creates the Perfect Conditions for Compaction

Spring soils are often saturated from melting snow, frozen ground thaw, and seasonal rain. When soil is soft and waterlogged, it loses strength and becomes far more vulnerable to pressure. A truck or machine driving across firm summer ground may cause little damage, but the same equipment crossing soft spring soil can create deep rutting and severe compaction in a single pass.

This is especially common in:

- Lawns and athletic fields
- Construction sites
- Gravel driveways with soft subgrades
- Farms and open fields
- Areas with poor drainage

Once compacted, soil can remain damaged long after the surface appears dry again.

Long-Term Effects of Spring Compaction

The impact of spring compaction is more than cosmetic. It can lead to:

Poor Drainage

Compacted soil prevents water from soaking in properly, leading to puddles, runoff, and muddy areas.

Weak Root Growth

Grass, trees, and shrubs struggle to establish roots in dense soil, often resulting in thinning turf or stressed plants during summer heat.

Reduced Yields and Growth

On agricultural or landscaped properties, compaction can significantly limit plant performance.