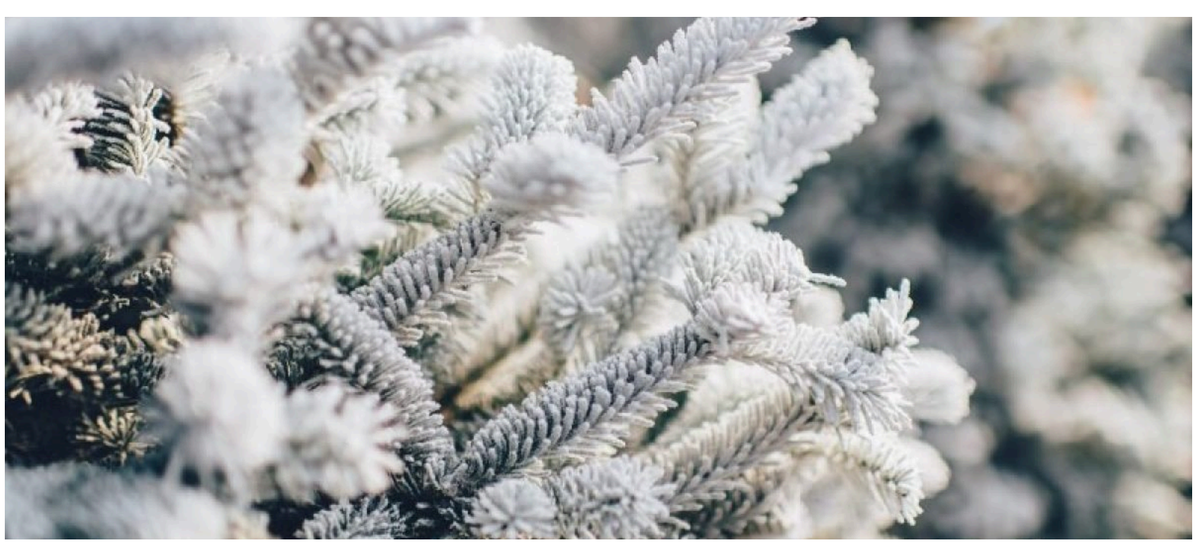
Salt Damage to Trees
FACT SHEET

GREEN DROP Tree Care





What It Is:

Salt is a winter “hero” when it comes to keeping the roads and your walkway safe, but unfortunately, it’s not as kind to your trees. It silently harms your landscape, leaving trees stressed and stunted.

Ever notice brown, crispy leaves or needles on trees near salted roads? That’s salt spray at work. As vehicles zip by, they kick up a salty mist that settles on branches, leaves, and needles. This coating draws moisture away, dehydrating plant tissues and causing a “burn” effect.

Salt doesn’t stop at the surface. Melted snow carries salt-laden water into the soil, where it disrupts a tree’s hydration system. This creates osmotic stress, forcing roots to work harder to absorb water—a process akin to drinking through a clogged straw. Over time, salt accumulation increases soil salinity, making it inhospitable for trees to thrive.

Direct Contact Symptoms:

- Browning or yellowing leaves and needles, especially on the road-facing side.
- Premature defoliation or branch dieback.
- The tips of branches may dry out and die, particularly those closest to the road or salt source.
- Prolonged salt exposure can weaken the tree's bark, making it susceptible to cracking or peeling.
- A visible white crust may form on the tree where salt has settled and dried.
- Trees may experience slower growth, reduced canopy density, and increased vulnerability to pests and diseases.

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Soil Contamination Symptoms:

- High salinity inhibits water absorption by the roots, leading to slow or halted growth over time.
- Salt in the soil disrupts the uptake of essential nutrients like potassium, calcium, and magnesium, leaving trees malnourished.
- Prolonged exposure to salt weakens root structures, making them more vulnerable to diseases and environmental stress.
- Salt alters soil composition, reducing its ability to retain water and air. This creates an inhospitable environment for tree roots.
- Healthy soil relies on beneficial microorganisms, which can be killed or disrupted by high salt concentrations.
- Salt-contaminated soil has reduced water-holding capacity, making trees more vulnerable during dry periods.
- Salt can alter soil pH, making it more alkaline or acidic depending on the type of salt used, further stressing the tree.
- Salt contamination often affects nearby shrubs, grass, and other plants, creating a less supportive ecosystem for trees.

Impact on Tree Types:

Not all trees react to salt in the same way, and some are more sensitive than others.

- Deciduous Trees: Salt spray and soil salinity may not show immediate effects, but signs like leaf scorch and bud failure often emerge in spring when growth resumes.
- Coniferous Trees: These evergreens are more vulnerable due to their year-round foliage. Salt can build up on needles, leading to browning and eventual needle drop.
- Shrubs: Salt can also harm shrubs, especially those planted close to roads and sidewalks. Symptoms include browning leaves, twig dieback, and stunted growth.

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Prevention:

- Use Salt Alternatives: Opt for less harmful de-icing materials such as sand, gravel, or kitty litter. These provide traction without the harmful effects of salt. If you still need to use salt, consider calcium magnesium acetate, which is less damaging to trees.

- Apply Salt Strategically: When using salt, apply it sparingly and only in areas where absolutely necessary. Avoid spreading it near the base of trees, shrubs, or other vegetation.

- Redirect Snow Piles: Avoid piling snow that contains salt near tree roots or planting beds. Instead, redirect it to less sensitive areas of your yard.

- Create Physical Barriers: Use burlap screens, snow fences, or other barriers to protect trees and shrubs from salt spray, especially if they are close to roads or walkways.

- Water Wisely: After winter, flush the soil around your trees with water to wash away accumulated salts. Use a slow, deep watering technique to ensure the salt is pushed below the root zone.

- Mulch Around Trees: Apply a thick layer of organic mulch around the base of trees to help retain soil moisture and buffer the root zone from salt exposure.

- Plant Salt-Tolerant Species: In areas prone to salt exposure, consider planting trees and shrubs known for their salt tolerance (more on them later).

- Prune Proactively: Prune away weak or dead branches before winter to reduce the risk of breakage and exposure to salt spray.

- Wash Off Salt Spray: On warmer winter days (you know, those chinook days), rinse salt off branches, needles, or leaves with water. This prevents salt from accumulating and causing damage.

- Improve Soil Health: Enrich your soil with organic matter and test its salinity levels regularly. Healthy soil helps trees resist the effects of salt exposure more effectively.

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Prevention:

- Be Mindful of Salt Application: If you manage your own deicing, follow recommended salt application guidelines to avoid overuse.
- Create a Buffer Zone: Plant trees and shrubs farther from roads or walkways where salt is regularly applied. This extra distance reduces exposure.

Salt-Tolerant Tree Species in Western Canada:

High Salt Tolerance

- Russian Olive
- Rocky Mountain Juniper
- Green Ash
- Silver BuffaloBerry
- Austrian Pine
- Sea Buckthorn

Medium Salt Tolerance

- Manitoba Maple
- American Elm
- Siberian Elm
- Laurel Leaf Willow
- Ponderosa Pine
- Villosa Lilac
- Snowberry
- Spreading Juniper

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Salt-Tolerant Tree Species in Western Canada:

Low Salt Tolerance (Handle with Care)

- Colorado Blue Spruce
- Birch
- Aspen
- Cottonwood
- Balsam Fir
- Douglas Fir
- Dogwood
- Little-leaf Linden
- Larch



Contact:

GREEN DROP Tree Care

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