

Topic of the Month

Salt-Tolerant Trees, Shrubs, Perennials, and Herbaceous Grasses

By Bethany Chaplin, MN GreenCorps Member Serving with Crow Wing Soil & Water Conservation District

Salt use during winter months:

Around 400,000 tons of road salt are applied each year in Minnesota.¹ This can cause serious problems for vegetation. Salt injury is common with vegetation adjacent to highways, streets, sidewalks, and driveways.



Image via [What Happens to All the Road Salt in Milwaukee?](#)



Images via
Top: [Road Salt Alternatives: What They Are & Why We Need Them](#)
Bottom Left: [5 Simple Tips for Avoiding Winter Damage to Your Lawn](#)
Bottom Right: [Salt Damage in Landscape Plants](#)

How Salt Damages Plants:

- Scorched foliage
- Browning or discoloration of needles beginning at tips²
- Early leaf drop or premature fall²
- Twig and stem dieback²
- Reduced or distorted leaf or stem growth²
- Witches' broom development²
- Increase of water stress (salt dehydrates the soil by attracting moisture)
- Increase in soil toxicity makes it uninhabitable for vegetation
- Nutrient deficiencies

¹ Estimating annual chloride use in Minnesota [Estimating annual chloride use in Minnesota](#)

² The Impact of Salts on Plants and How to Reduce Plant Injury from Winter Salt Applications [Landscape: The Impact of Salts on Plants and How to Reduce Plant Injury from Winter Salt Applications](#)

Preventing Salt Damage

- Reduce salt use
- Target applications on walkways and roadways avoiding landscape beds or lawns
- Avoid planting in areas where runoff naturally flows
- Leach soils by watering heavily
- Protect plants with physical barriers such as burlap, plastic, or wood, or snow fencing



Image via [The Garden Buzz: Shrubs](#)

Plant salt-tolerant trees, perennials, shrubs, and herbaceous grasses:

- * Salt-tolerant does not mean injury free.
- * Species are all native to Minnesota

Trees

- Northern Red Oak⁴ (*Quercus rubra*)
- Quaking Aspen⁷ (*Populus tremuloides*)
- White Spruce⁷ (*Picea glauca*)
- Paper Birch² (*Betula papyrifera*)



Image via [DNR - Paper Birch](#)

Perennials

- Butterfly Weed⁶ (*Asclepias tuberosa*)
- Alpine Yarrow⁶ (*Achillea alpine*)
- New England Aster⁶ (*Symphotrichum novae-angliae*)
- Spotted Joe Pye Weed⁶ (*Eutrochium maculatum*)



Image via [How to Grow New England Asters and Care for Them](#)

Shrubs

- False Indigo (*Amorpha fruticosa*)
- Staghorn Sumac² (*Rhus typhina*)
- Black Chokecherry⁵ (*Aronia melanocarpa*)
- Common Juniper² (*Juniperus communis*)



Image via [Common Juniper: Identification, Leaves, Bark & Habitat](#)

Herbaceous Grass

- Nuttall's Alkali Grass³ (*Puccinellia nuttalliana*)
- Blue Grama³ (*Bouteloua gracilis*)
- Little Bluestem³ (*Schizachyrium scoparium*)
- Slender Wheatgrass³ (*Elymus trachycaulus*)



Image via [Standing Ovation Little Bluestem](#)

³ Salt Tolerant Plants [Minnesota plant lists - Minnesota Stormwater Manual](#)

⁴ Protecting Trees and Shrubs in Winter [Protecting trees and shrubs in winter](#)

⁵ Selecting Shrubs for Your Home [Selecting Shrubs for Your Home - Sort by Tolerance](#)

⁶ Minimize Deicer Damage with Salt Tolerant Plants [Minimize Deicer Damage with Salt Tolerant Plants](#)

⁷ Salt Damage in Landscape Plants [Salt Damage in Landscape Plants](#)