

## It's Time for a Low-Salt Diet

*A salty solution to winter ice is hurting nature's health—but you can help solve the problem.*

By Kristan Uhlenbrock

If you have high blood pressure, your doctor may recommend lowering your salt intake. Likewise, a high-salt diet in the environment can put serious stress on gardens, forests and streams. Unfortunately, when snowflakes pile up outdoors, people and communities are all too quick to throw salt on sidewalks and streets—with dangerous consequences for nature.

According to the U.S. Geological Survey, some 19 million tons of salt (mainly sodium chloride) are spread on U.S. roadways and other impervious surfaces each year. All that salt may help keep people safe and mobile, but researchers warn of long-term environmental hazards.

### Salt's dark side

Salt leaches heavy metals from roads. Those metals and the salt itself infiltrate soil and water, killing plants and aquatic life. Sodium chloride also corrodes bridges, lures animals onto dangerous roads to lick the salt and harms pets' paws.

Impacts to water are especially worrisome. A 2017 study published in the *Proceedings of the National Academy of Sciences* found that 44 percent of 284 freshwater lakes in the

Northeast and Upper Midwest have undergone long-term salination largely due to road salting. This salt pollution can disrupt the migration of aquatic organisms such as zooplankton and benefit invasive species that are adaptable to higher salinity levels. The study concludes: "Keeping lakes 'fresh' is critically important for protecting the ecosystem services freshwater lakes provide, such as drinking water, fisheries, recreation, irrigation and aquatic habitat."

On land, salt from car spray and snowplows can cause forest mortality

up to 300 feet from the road by injuring foliage or root systems of trees.

"Chloride is an environmental problem that we could solve by purely stopping putting so much into the environment," says Hilary Dugan, a freshwater scientist from the University of Wisconsin–Madison.

Though most road salt comes from municipal management, homeowners and businesses can help reduce salt entering the environment:

- Shovel sidewalks early and often so snow and ice won't become packed and sun can melt the leftovers.

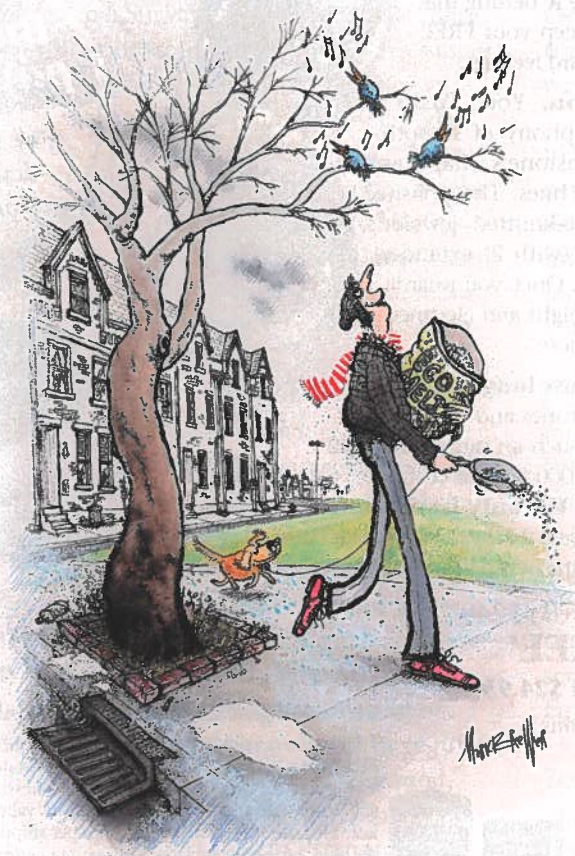
- If you do apply salt, use it strategically, only on steps or key pathways.

- Install salt-tolerant, native plants near your home's impervious surfaces and protect the plants with barriers such as burlap bags.

- Use deicers touted as eco-friendly such as beet juice, alfalfa meal or calcium magnesium acetate, but use them sparingly as they may also decrease water quality.

- Encourage your local government to reduce road salt application.

Ultimately, salt-free approaches to managing ice will benefit plants, pets, waterways and wildlife—and that should warm your heart this winter. **W**



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