

ALTERNATIVES TO SALT FOR TREATING ICY SIDEWALKS AND DRIVEWAYS

Spreading salt on roads and driveways reduces ice formation, allowing for safer travel for pedestrians and motorists. Too much salt, however, can corrode metal on cars, damage gardens and trees, and pollute our local streams. All landowners can be part of the solution by using alternative products or by using salt at recommended times and rates.

There are several products that can be used instead of salt. Here are a few options to consider:

- Sand, kitty litter, and coffee grinds – These products provide great traction. Sand can easily be swept up and disposed of afterwards, but kitty litter often creates mushy clumps. These products will absorb sunlight, contributing to melting.
- Ashes – For those with a wood burning fireplace, ashes are a great option. They provide a lot of traction and absorb sunlight, so will melt ice quickly on a sunny day. And they're free!
- Beet juice – Increasingly being used by highway departments on its own or mixed with salt, this safe and natural product allows ice to melt even when air temperatures are extremely cold.
- Potassium acetate, calcium magnesium acetate – Acetates are super-effective even at extremely low temperatures and are biodegradable. The drawback? Price. They cost several times as much as rock salt and can be difficult to find. This is a good solution for small areas in environmentally sensitive locations, such as floodplains.
- Other "chlorides": calcium chloride, magnesium chloride, potassium chloride – Salt (sodium chloride) is not the only chloride product that can melt ice. These products are generally more expensive than rock salt, but work better at low temperatures. Calcium chloride is the preferred choice over magnesium chloride, as it works at lower temperatures and is applied at a lower rate, leading to less chloride in our streams. Potassium chloride is considered safest for pets and plants, but is often more expensive and does not work well at lower temperatures. All chloride products contribute to pollutant loads in our streams and their use should be minimized.



If salt is the only reasonable alternative for your property, remember:

- Remove as much ice and snow off the top as you can before applying salt to speed up melting
- A little salt can go a long way:
 - Rock salt should be applied at about a handful per square yard
 - Calcium chloride should be spread even thinner, about a handful for 3 square yards
- The air temperature matters. Rock salt is five times more effective at melting ice at 30°F than 20°F, and ineffective below 20°F. Calcium chloride is better for temperatures down to 0°F.
- Applying early can prevent ice crystals from forming and minimize the amount of salt used overall.