Got Snow? Go Low Salt!

We know that for our long term health, it is advisable to incorporate a daily diet into our lifestyle that contains a low amount of salt. Did you know that our environment can benefit from this same care, when it comes to the use of salt? In February 2010, 48.7 inches of record snows hit Southwestern Pennsylvania. As a result of these significant storms, residents, business owners and local municipalities used heavy amounts of salt to deal with the tedious snow removal process. Chloride is one of the main ingredients in road salt and it is extremely soluble in water. As a result, there is no way to remove it once it gets into the watershed. Chloride can be harmful to many forms of aquatic life at concentrations from 250 to 1000 mg/l, depending on the species. Road salt also contains many other impurities such as phosphorus, nitrogen, copper, and cyanide. As a homeowner, keeping ice and snow off your driveway is important for safety and convenience. However, there are ways to reduce the impact of salt by following the guidelines below.

1. **Buy Early:** Make sure to have your stock of deicing products already in hand well in advance of the first big storm of the season. Otherwise, you will have less flexibility in purchasing products that are environmentally friendly. To help guide you in the available products, refer to the chart below:

Characteristics of Common Deicing Products

Check the Label For	Works Down To	Cost	Environmental Risks
Calcium Magnesium Acetate (CMA)	22 to 25 Degrees F	20 Times More Than Rock Salt	Less Toxic
Calcium Chloride	-25 Degrees F	3 Times More Than Rock Salt	Uses Lower Doses No Cyanide Chloride Impact
NaCl: Sodium Chloride, Also Known As Rock Salt	15 Degrees F	About $5 for a 50 lb. Bag	Contains Cyanide Chloride Impacts
Urea	20 to 25 Degrees F	5 Times More than Rock Salt	Needless Nutrients Less Corrosion
Sand	No Melting Effect	About $3 for a 50 lb. Bag	Accumulates in Streets and Streams

2. **Avoid Kitty Litter and Ashes:** Although these products are kind to the environment, they are not effective. While they do provide some traction, they do not melt snow nor ice. Also, when it warms up, these products get messy and gooey, and you will then track the product into your home. If you are only looking for better traction and are not concerned with melting the snow, then sand is the best choice.

3. **Shovel Early and Often:** While it is tempting to sit by the cozy fireplace and wait till all the snow has fallen, before tackling the snow shoveling job, fight the temptation! The muscles in your body will thank you. Deicers are also most effective when there is only a thin layer of snow or ice that must be melted.

4. **Apply Salt Early, but Sparingly:** The recommended application rate for rock salt is about a handful per square yard treated (after you have scraped as much ice and snow as you can). Throwing more salt down will not speed up the melting process. Even less salt is needed if you are using calcium chloride (about a handful for every three square yards treated). If you have a choice, pick calcium chloride over sodium chloride. Calcium chloride works at much lower temperatures and is applied at a much lower rate.

5. **Know Your Salt-Risk Zone:** Note any plants that are within five to ten feet of your sidewalk and drive way. If you have any salt-sensitive trees, shrubbery or grass in this zone, you should avoid any de-icing product that contains chlorides (rock salt and calcium chloride), or use only very small doses. Refer to the chart below:

Plants Susceptible to Salt

Landscaping Areas	Species at Risk from Salting
Deciduous Trees	Tulip Polar, Green Ash, Hickory, Red Maple, Sugar Maple
Conifers	Balsam Fir, White Pine, Hemlock, Norway Spruce
Shrubs	Dogwood, Redbud, Hawthorn, Rose, Spirea
Grasses	Kentucky Bluegrass, Red Fescue

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