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Town of Orangetown

PUBLIC SERVICE ANNOUNCEMENT

TOPIC: Buying, Using and Storing Road Salt
CONTACT: Chuck Stead, Environmental Educator
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FOR AIRING: November thru January 2012

Buying, Using and Storing Road Salt

- Participating Members
- Town of Clarkstown
 - Town of Haverstraw
 - Town of Orangetown
 - Town of Ramapo
 - Town of Stony Point
 - Village of Chestnut Ridge
 - Village of Haverstraw
 - Village of Montebello
 - Village of New Square
 - Village of Nyack
 - Village of Piermont
 - Village of Pomona
 - Village of South Nyack
 - Village of Spring Valley
 - Village of Suffern
 - Village of Upper Nyack
 - Village of West Haverstraw
 - Village of Wesley Hills

Each year, with the first sign of snow, Rockland residents rush to the store to pick up bags of road salt. Today, there are many brands and formulas, leaving shoppers wondering which salt will do the best job with the least damage to roads, cars, pets’ feet, and plants in addition to the possibility of polluting nearby waterways.

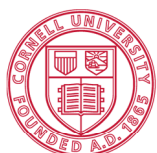
What was so pretty in the first gentle snowfall soon becomes packed mounds of snow and ice along the roadside, dirty grey with accumulated pollution, salt and trash. This mix eventually melts and runs down the street into storm grates which funnel the water not to treatment plants but directly to streams, lakes and ponds. Carried with it are pollutants such as lead, chlorides, copper, zinc, mercury and plastics.

Excessive road salting can damage plants as the salt washes into the soil and burns the roots. Trees such as red and sugar maples, Norway spruce, dogwood and redbuds, for instance, are very sensitive to high chloride levels and can be stunted or killed by high levels of salt in the soil. High salt concentrations are commonly found in lawn soil within five to 10 feet of blacktop and as far as 100 feet from highways. Damage can be minimized by spreading mulches on the soil surface around plants to absorb salts, and by planting salt-tolerant plants near paved/salted areas. For a free list, contact Cornell Cooperative Extension of Rockland.

Some light applications of road salt near grass and flower beds will usually harm the plants if the salt is applied in mid-winter when the ground is frozen and the plants are dormant. Salt applications made close to spring are much more damaging to plants that are beginning to wake from winter dormancy. So, choose the right product, treat only the high risk areas, and most importantly, apply small doses just before ice begins to form.

Some light applications of road salt near grass and flower beds will usually not harm the plants if the salt is applied in mid-winter when the ground is frozen and the plants are dormant. Salt applications made close to spring are much more damaging to plants that are beginning to wake from winter dormancy. So, choose the right product, treat only the high risk areas, and most importantly, apply small doses just before ice begins to form.

Return Correspondence to:
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Each salt has a different capacity to melt ice as the road surface temperature drops. For example, sodium chloride works down to about 15 degrees F while calcium chloride melts at -20 F. Following are recommendations for the four main product base materials currently on the market:

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- **Sodium chloride:** (effective to 15 degrees F) Caution should be taken with exposure to vehicles, as it can corrode auto surfaces. It can also cause minor pitting (holes) in concrete, is a water pollutant and can burn plants which means that it ought to be used sparingly, especially in late winter when the ground is beginning to thaw and roots beginning to grow.
- **Calcium chloride:** (effective to -20 degrees F) This product poses the same concern for corroding auto surfaces, damaging concrete and polluting water. In addition, it must be stored in a dry area (as it readily absorbs moisture and can turn to a solid block of salt) and can cost up to 10 times more than sodium chloride.
- **Magnesium chloride:** (effective to 0 degrees F) Water pollution and plant-root burn are both a risk. It is not as corrosive to vehicles or concrete and is not as hard on pets but it must be stored in a dry area to prevent moisture absorption.
- **Calcium magnesium acetate:** (effective down to 15 degrees F) This product is less corrosive than sodium chloride, is biodegradable but less effective in colder temperatures, and is up to 30 times more expensive than sodium chloride.

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Alternative Ice-Melters: Sawdust, sand and kitty-litter are sometimes used; although they improve traction, they can be messy and do little for actually melting the ice or snow. A mixture of one part calcium chloride to three parts sand, sawdust or litter might be preferable.

Gardeners sometimes use urea fertilizer to melt ice but it only melts down to 20 degrees F and the application rate on a sidewalk or driveway is 10 times greater than that recommended for an average lawn-fertilizer. Given that the ground is frozen, most of the urea will eventually wash into the street, down the storm drain and into a nearby stream or pond.

So remember: Use light applications on troublesome areas applied just before the ice begins to form.

For further information, contact the Horticulture Diagnostic Lab at Cornell Cooperative Extension of Rockland at (845) 429-7085, ext. 3, Monday through Thursday

This message was brought to you by
Cornell Cooperative Extension and the Stormwater Consortium of Rockland County



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