

The Future of Winter Maintenance Involves Liquid Only Strategies

Liquids: the future of snow and ice control

Liquid deicers have been very popular in winter road maintenance. They are also an innovative approach to sidewalk, trail and parking lot maintenance. Stay ahead of the competition by adding liquids to your winter maintenance plan.



Faster: liquids can melt snow and ice faster than granular salt



Lessens Environmental Impact: the lower salt concentrations of liquid deicers are less damaging to our lakes, rivers and groundwater



Cost Effective: less time and less salt can lower costs of winter maintenance if done correctly



Stays on Target: liquids eliminate bounce, scatter and tracking problems associated with granular products

What to know before trying liquids:

- Liquid has less melting power than granular products
- Proper training, chemicals and equipment are necessary to integrate liquids into your maintenance program
- Learn about training offered in the Dane County area at www.wisaltwise.com



Wet/dry spread pattern example



Parking lot equipment example



Wet/dry spread pattern equipment example; make double pass to get more lines

How to Use Liquids in your Winter Maintenance Program

Beginner:

Anti-icing before a storm is an easy first step to adding liquids in a winter maintenance program.

Before the Storm (Anti-icing)

Applying only liquids before a storm is an effective step in weakening the bond of snow to the pavement. This preventive measure will melt a thin layer between the snow and the pavement, making removal easier and in some cases unnecessary. Anti-icing with liquids is helpful in many situations but should not be used on very cold pavement or in areas with blowing or drifting snow. For safest results apply liquid in a wet/dry pattern (*see front page for spread pattern example*).

Anti-Icing Application Rate Guidelines for Parking Lots, Sidewalks and Trails		
Anti-icing is a proactive practice intended to reduce the bond between the pavement and the snow and ice		
Predicted Weather	Recommended Rates	
	Salt Brine (NaCl) 23.3% gallons/1000 sq.ft.	Other Products
Frost/Sleet	0.3	Follow manufacturers' recommendations
Black Ice	0.5	
Freezing Rain	Not recommended	
Light Snow (<1/2in./hr.)	0.5	
Moderate or heavy snow (≥1/2 in./hr.)	0.6	

*Maximum rates can be calculated by increasing recommended rate by 0.15 gal/ 1000 sq.ft.

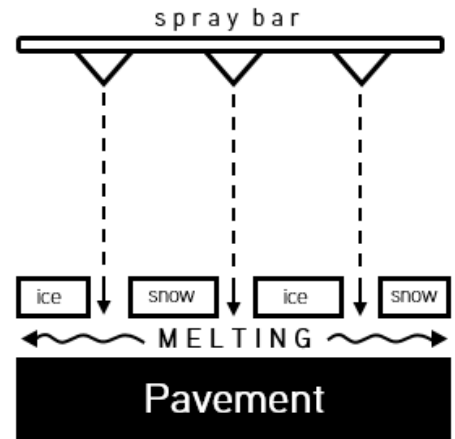
Advanced:

Applying straight liquids during or after a storm is an advanced technique offering much promise for the future. Do not try this unless you are very familiar with liquids.

During or After the Storm (Deicing)

The technique of applying only liquid deicer during or after a storm event is called direct liquid application (DLA). DLA is an advanced technique and requires proper training, equipment, liquid selection, and strategies.

DLA is especially effective at removing frost or thin layers of ice. With spray nozzles, streams of liquid can penetrate through and spread out under compacted snow and ice to break the bond with the pavement (*right*). Caution: If done incorrectly, DLA can act like a Zamboni and create a layer of melting/refreezing on the surface of compacted snow and ice.



DLA example

This is an incomplete list of strategies. For more information visit: www.wisaltwise.com

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Dane County Department of Land and Water Resources (LWRD) has determined that these guidelines establish a best maintenance practice for those fighting winter storms so they can provide high quality service and a lower impact on our environment. By issuing these guidelines, LWRD does not intend to extend its liability beyond that imposed by state statutes.