

Road Sleuth

Myths & Facts Revealed



Photo courtesy of WVD0H-D4.

Myth: Why is the road department spraying water on the roadway during the winter?

Most people who live in areas that receive snowfall are familiar with the sight of road crews plowing, salting, and using abrasives to help combat snowy and icy conditions. Another technique that some road agencies employ is the use of liquid solutions. If you have ever seen a road crew spraying a clear liquid onto the road just before or during a winter storm, it's not water; they are using what is known as a liquid anti-icing or de-icing agent.



Photo taken by Kim Carr, WV LTAP.

There are several different products available, but two of the more common commercial products use magnesium or calcium chloride. Some agencies also make their own liquid solutions using salt and water, which is typically called salt brine. No matter whether an agency is making its own anti-icing or de-icing product, or using a commercial one, every state and local road agency has to abide by strict federal and state environmental regulations.

Often road crews will pre-treat the roadway prior to a storm – before the first snow has fallen. This means you will see a road crew spraying the liquid on the roadway several hours prior to the impending snowfall. This process helps prevent the ice from bonding to the pavement.

Another technique is pre-wetting the material before spreading it on the roadway. Pre-wetting rock salt prevents it from scattering or being swept off the road by traffic, and it helps the salt begin to melt the ice sooner. Overall, pre-treating and pre-wetting lead to less waste and both of these techniques have been proven to help road agencies increase the effectiveness of the other materials they are using.

So if you see road crews spraying liquid on the roadways this winter, please keep in mind that these employees haven't lost their minds; they aren't spraying water on the roads to turn them into an ice-rink. They are using a process which will enhance the melting of snow and ice and help improve roadway conditions.