Why does the Idaho Transportation Department (ITD) use salt?

Salt is extremely effective at keeping roads free of ice and snow. It improves safety and mobility on Idaho’s roads, and saves lives in the process by reducing crashes. We recognize the need to continuously improve salt-management practices, and we continue working to minimize wildlife or environmental impacts and the corrosion of vehicles on the road. ITD’s commitment to serving the public and keeping commuters safe will always remain our top priority.

ITD’s winter road-clearing practices save lives: Roadway safety and mobility benefits of bare, ice-free highways cannot be disputed. Fatal and serious-injury crashes have declined significantly during the last decade, corresponding directly to ITD’s increased salt usage. Annually between 2011-2018, fatal crashes have dropped from 15 to 4 in adverse winter conditions on state highways, and serious-injury crashes from 69 to 19 in that same time period. Overall, crashes have been drastically reduced, from 1,966 to 633. The data shows we are saving lives through efficient, effective winter road maintenance. The key is using the right product for the right place at the right time. We use a Mobility Cost Efficiency index to move toward that goal.

What Idahoans say: In the most recent survey of road users in Idaho (2014), 99.3% of people said ITD should maintain or increase winter maintenance efforts. Nearly 80% said they felt safe on Idaho highways during the winter, almost 76% said they are somewhat satisfied or very satisfied by our level of maintenance. The overwhelming majority of drivers were most comfortable with a “Bare Pavement” approach, which is achieved through the use of salt or salt products, not by plowing snow or sanding alone. Our practices reflect what drivers want, along with Roadway Salt Best Management Practices (2015) from Clear Roads — a coalition of 36 “snowbelt” states — and a salt study commissioned by ITD in 2014 that verifies salt as the best option for safe winter operations.

How do we decide what to use?

ITD actively looks to lessen the use of salt products while still getting the job done. The decision on what product to use is up to each foreman for the roads they keep clear. It may vary within the same region, as topography, road geometry, elevation or weather characteristics change from one place to the next.
Effectiveness in the conditions the product is used is the most important factor. We also consider what is available at the time of need. Cost alone should not be the final determination. Safety is the top priority.

While some in the public want us to use more sand on the roads, sand has a negative environmental impact on air quality as dust is spread upward. Sand also creates drainage issues as it builds up in streambeds and spawning beds.

**Background:**
ITD began decreasing sand use in the early 2000’s because using sand alone wasn’t providing the desired results.

Since 2010, ITD’s mobility index (the percentage of time during winter storms that Idaho’s state roads are clear and passable) has increased from 28% to 86%. This directly correlates to the efficient movement of goods and services.

ITD is nationally recognized for the success of its winter maintenance program, which prioritizes the safety of the traveling public. A number of states and more than a dozen other countries have contacted ITD about our winter road performance program. Clear Roads, Intelligent Transportation Systems International, the Federal Highway Administration and Roads & Bridges magazine have all written articles on ITD’s winter road maintenance program.

The department won an award from the American Association of State Highway Officials (AASHTO) — the nation’s highways group — for the winter-performance measuring system in 2013, and for the winter mobility indexing the following year.

In the 18-state western state coalition called WASHTO (the Western Association of State and Highway Transportation Officials), 90% of the states use salt (along with snow plowing) as their primary winter road treatment method. ITD is constantly evaluating and improving our winter road-clearing practices and optimizing our mobility cost efficiency.