

Spreading Salt...
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quantity of salt or the frequency of application must be increased.

Pay special attention to spinner speeds. A spinner that revolves too fast will throw salt over a wide area, wasting material. You may correct "overthrow" by adjusting the drop location on the spinner or by using your direction baffles.

Full Width or Windrow Spreading?

Traffic density and highway design largely control the spreading pattern.

A *windrow* of salt applied in a 4-8 foot strip along the centerline is effective on two-lane pavements with a low to medium traffic count. You waste less salt with this pattern and quickly give vehicles clear pavement under at least two wheels. Traffic will soon move some salt off the centerline and the salt brine will move toward both shoulders for added melting across the entire road width.

The *full width* spreading pattern is used most often on multiple-lane pavements with medium to high traffic volumes. You get melting action over the full pavement width. Cars tend to stay in line to clear wheel paths in the lanes.

Often the full width pattern is used when trying to get salt down "under a storm." But be careful not to waste salt when using this pattern.

Play the wind in spreading:

A strong wind blowing across a street or highway can cause salt to "drift" as it comes out of the spreader, pushing it onto the shoulder or into a gutter. This is particularly true in rural areas where there are few windbreaks. How the wind affects spreading depends both on wind velocity and pavement condition. *Have spreader operators "play the wind" to put salt where it will do the most good.*

Give salt time to work:

Time plowing operations to allow maximum melting by salt. When you plow salt off the pavement, you waste material and increase the cost of snow removal.

Know when to plow and reapply salt:

You can tell when another salt application is needed by watching the melting snow kicked out behind vehicle tires. If the slush is soft and "fans" out, the salt is still working. Once the slush begins to stiffen and is thrown directly to the rear of vehicle tires, it is time to plow and spread more salt.

Has the weather changed?

Remember that salt application rates may have to be increased at night, on sunless days and when the temperature drops sharply. Without the sun, you lose the effect of pavement radiation and warmth. At night, traffic usually falls off, minimizing another heat source that helps melt ice and snow. One thing that must be considered is that the pavement temperature is not always the same as the air temperature.

Don't overlook salt's anti-skid value:

For years, maintenance people have observed that salt, applied as an ice melter, also gives anti-skid protection. Tests conducted in cooperation with the National Safety Council show salt, applied at normal deicing rates, gives as much anti-skid protection as sand. The anti-skid effect of salt is immediate as it starts melting snow or ice.

Safeguard the environment:

The way *you* spread salt can make the difference between whether the public appreciates or condemns your efforts. Overuse and misuse ignore concern for the environment. Proper calibration of spreading equipment can avoid most problems.

There is no correlation between yearly snowfall and the total quantity of salt used. The type of storm dictates the frequency of application and total amount of salt necessary. An ice storm may require enormous amounts of salt, perhaps even more than a prolonged snow-storm.

The above article was taken from *The Snowfighter's Handbook*, a Salt Institute publication. ■

Snow Safety

To make snow removal operations less dangerous, road crews should follow these safety precautions:

1. Check all equipment before each use. Make sure lights, brakes, wipers, exhaust systems, tires, chains and steering are safe. Report any mechanical trouble immediately.
2. Clean all lights and windows frequently during snow and ice removal operations. Vehicles working in traffic lanes should be equipped with flashing yellow lights, and flags should be mounted on the left and right side of the plow and at the end of the wing.
3. Keep heating systems and defrosters in good condition. To keep snow off tail-lights, heaters should be installed in the lights.
4. If it becomes necessary to stop a truck in a traffic lane for any delay when spreading abrasives or chemicals, traffic should be warned in any of the following ways:

- continued operation of revolving yellow flashers;
- using four-way flashers;
- placing lighted fuses on the roadway if visibility is limited.

5. Establish procedures for safely handling blade changes and attachments during storms. For example, a plow should be stored, blocked up, at the exact height of the equipment so it will not have to be lifted into place when attached or detached.

6. Make sure flashlights, flares, flags, safety vests, blanket, candle (to warm cab in breakdown) and first aid kit are available in all truck cabs.

7. Observe traffic laws at all times when plowing roads. Remember that speed can kill, especially in a snowstorm or at night, so resist the urge to get the job done in a hurry.

8. Respect the rights of others. Be considerate of motorists who have trouble driving in the snow and, whenever possible, report stranded motorists.

9. Watch for signs of fatigue in equipment operators. A limit of 12 continuous hours on duty is fairly common in public works agencies in the Snow Belt, although some agencies permit longer work periods.

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