7/ GUIDELINES FOR SALT APPLICATION

Timing is crucial in applying salt. Ideally, salt should be spread as soon as a storm begins in order to prevent bonding of snow or ice to the pavement. The salt will quickly produce a brine or keep snow mealy, allowing for efficient plowing.

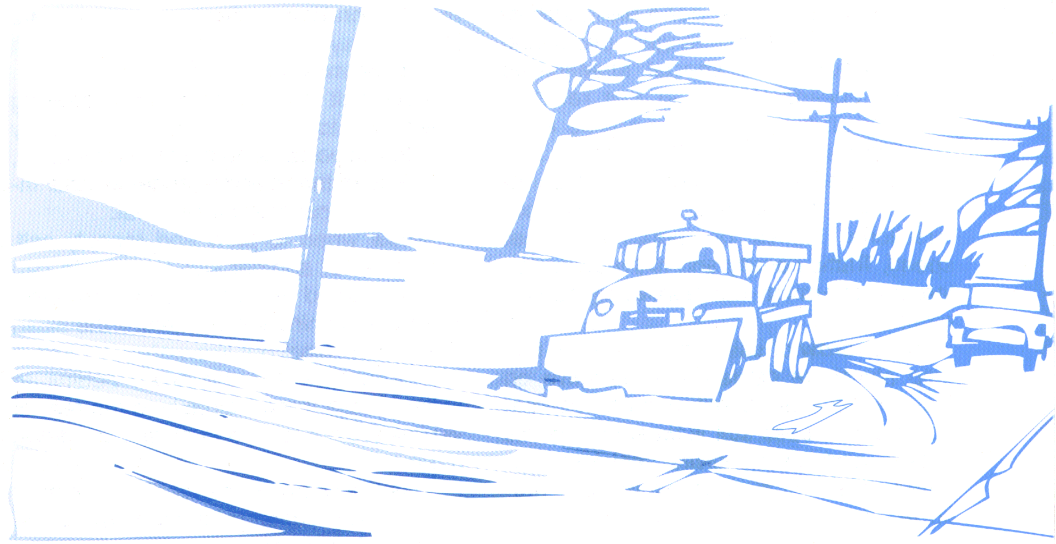
The melting action of salt applied early in a storm works from the pavement surface up so snow and ice do not form hardpack.

There are times and storm conditions where salt alone is the only answer to keeping the pavements clear. For example, freezing rain cannot be plowed and salt is the only solution for clearing the roads when it occurs.

Anti-icing, or applying salt before the storm actually begins is practiced in European countries and by a few agencies in North America. Since Mother Nature and storm forecasting are not always precise, this can be tricky. But, done successfully, presalting is the best means to prevent ice-pavement bonding.

The best advice would be to be prepared to mobilize all forces as soon as a winter storm approaches.

There are no easy answers or solutions with snow and ice control because there are too many variables. It has been estimated there are over 66,666 different storm conditions - pavement temperature, ambient temperature, pavement type, solar radiation, traffic volume, traffic speed, wind direction and velocity, type of precipitation, topography, lake or ocean effect, shaded areas (by mountains, trees or buildings) and wind chill factor, to name a few variables.



Play the wind to put salt where it will do the most good.

Snow and ice control is a very complex issue and those people on the front line need the best information possible.

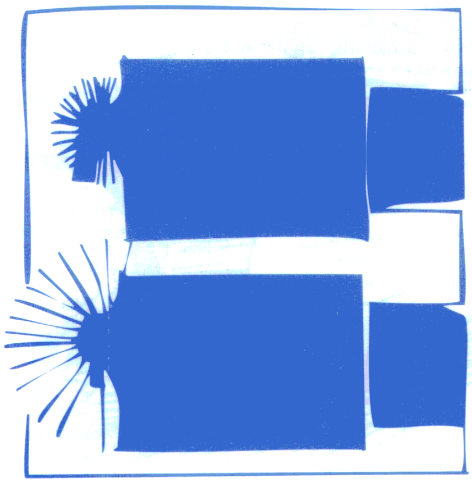
Salt is usually applied at the rate of 300 to 800 pounds per two-lane mile. As temperatures drop, either the quantity of salt or the frequency of application must be increased.

Ideally, with any deicer, at the end of the storm all material should be completely used. Since storm forecasting is not precise, some residue may remain on the surface after some storms. That residue, if not blown off or washed away, will be effective in helping prevent bonding of ice and snow in the next storm. A deicer only has residual effect if too much was applied for the storm condition.

Many agencies in the North American snowbelt have found that prewetting salt with brine speeds the reaction time of salt and also provides melting action at lower temperatures. See Chapter 10 on page 16 for details on this deicing procedure

There may also be a combination of applications of any of the above. Although most agencies agree that prewetting provides a faster, higher level of service at all temperatures, they do not agree on method of application.

Correct "overthrow" by adjusting the drop location on the spinner.



Traffic density and highway design largely control the spreading pattern.