Councillor Wylie

Whereas, the Commissioner of Public Works has assured the City Council that the amount of salt used for melting ice and snow is carefully monitored and minimized, but

Whereas, shovelfuls of salt continue to be dumped on tree plots at bus stops, causing hundreds of thousands of dollars in damage to valuable shade trees,

Now, therefore, the City Manager is requested to direct the Department of Public Works to cease application of salt to the bare ground when close to trees and other plant life and to furnish the City Council with a copy of the directive of the Public Works Department so ordering.

Preventing Damage From De-Icing Salt

By ANNE SIMON MOFFAT

DURING winter, when many gardens lie dormant under a blanket of snow, special precautions are needed to protect roadside plants from a severe environmental threat, the application of salt for de-icing roadways.

De-icing salt, which is a form of common table salt, can cause great damage to roadside trees, shrubs and ground covers by dissolving in ground water and penetrating to the root systems or by being sprayed on foliage as salt water.

On heavily traveled highways in the Northeast, 40 to 80 tons of salt per lane mile may be applied annually. According to Vito Turso, spokesman for the New York City Department of Sanitation, it is not uncommon for 100,000 tons of salt to be deposited on 3,000 miles of city streets and highways. Shopkeepers and building managers apply additional tonnage to sidewalks to protect pedestrians.

Salt can cause browning or yellowing of conifer needles, scorch along leaf margins in midsummer, premature autumn coloration and twig dieback. These are the same symptoms associated with drought or root injury. However, salt injury is often confined to branches facing the road and trees closer to the road suffer more damage than those set farther back.

The resemblance between salt and drought damage is not coincidental. Plants are parched of water in both injuries. Rock salt, the key ingredient of de-icing compounds, absorbs water in the soil and can produce a droughtlike environment for plants.

Salt also harms plants by causing harmful concentrations of sodium and chloride ions (the atomic components of salt) in shoot tips and by causing soil to become compacted, further reducing the availability of life-giving water and oxygen. Species planted in salt-laden soils are also more susceptible to attack by insect pests and plant pathogens and to damage by frost injury, air pollution and drought. The current water shortage will make city plants specially vulnerable to salt injury this winter.

Such injuries can be best minimized by limiting rock salt deposits through careful monitoring of the equipment that sprays de-icing mixtures on roads — but most home owners and city gardeners have little influence over local street-cleaning strategies. However, they can reduce the threat of injury by spreading sand, light gravel or cinders instead of salt on their own driveways and sidewalks, and by plowing or shoveling snowy thoroughfares instead of salting them.

The application of calcium chloride or Kitty Litter, instead of salt, may also reduce damage. These two products, however, which are available at supermarkets, hardware stores and home improvement centers for $10 to $15 per hundred pounds, are more expensive than conventional rock salt.

Several therapeutic measures may also be applied. Accumulated snow and salt piled around plants should be removed and, weather permitting, the area around roots exposed to salt should be doused with fresh water as soon as the snow melts.

Street trees benefit greatly from weekly flushing of nine or 10 gallons of rain or tap water. Small evergreen trees and shrubs can also be protected from salt spray if covered with burlap or a similar wrap.

Because late-season salt applications are the most detrimental, special care should be taken to avoid injury after March 1. That is the time of year when plants are breaking dormancy and their roots are actively absorbing nutrients and water to provide adequate nourishment for new foliage.

Also, species planted last fall should receive special attention. Transplants are already under stress and the well created by the settling of these plants is an excellent place for salty water from melting snow to accumulate. Such wells should be monitored and leveled as soon as possible.

If plants are desired in areas where exposure to salt is likely, select resistant species, including Norway maple, horse chestnut, paper birch, honey locust, European larch, Colorado blue spruce and red oak. Rugosa rose, Vanhoutt's spirea and garden snowberry are tolerant shrubs and Virginia creeper is a tolerant vine. Intolerant species — including the common privet, red and sugar maples, some dogwoods and white pine — should not be planted within 30 feet of roads on slopes below roadbeds.

If in doubt about the hardiness of a particular plant write to your local cooperative extension office or the Distribution Center, 7 Research Park, Cornell University, Ithaca, N.Y. 14850 and request Information Bulletin No. 69, which is available for 50 cents and lists resistant species.

Anne Simon Moffat is a science writer with a special interest in botany.

CCM-101

City of Cambridge

16.

IN CITY COUNCIL

January 19, 1981

COUNCILLOR WYLIE

WHEREAS: The Commissioner of Public Works has assured the City Council that the amount of salt used for melting ice and snow is carefully monitored and minimized, and

WHEREAS: Shovelfuls of salt continue to be dumped on tree plots at bus stops, causing hundreds of thousands of dollars in damage to valuable shade trees; now therefore be it

ORDERED: That the City Manager be and hereby is requested to direct the Department of Public Works to cease application of salt to the bare ground when close to trees and other plant life and to furnish the City Council with a copy of the directive of the Public Works Department so ordering.

In City Council January 19, 1981.
Adopted by the affirmative vote of 8 members.
Attest:- Paul E. Healy, City Clerk.

A true copy;

ATTEST:- Paul E. Healy

Order # 16 F-21

C. Wylie re: salting of city streets.

In City Council,

January 19, 1981