

WINTER BURNING ON CONIFER TREES

Winter burning (also called “winter drying” or “winter browning”) is a common and recurring problem of coniferous trees in the City of Winnipeg. Cedars and pines (and especially Scots pines) are particularly susceptible to the phenomenon, but under certain conditions Colorado and other spruces also suffer injury.

Winter burning is usually most conspicuous during years in which spring break-up is late. Injury is caused by excessive evaporation of moisture from the needles on warm and windy days in late winter and early spring. Because the ground and tree roots are still frozen, the needles cannot be replenished with moisture and they become desiccated. Trees growing in sheltered locations where they are exposed to reflected sunlight from deep snow cover, or in open areas where they are subjected to drying winds, are usually most seriously affected. Well-established larger trees rarely succumb to winter burning.

Needles that have turned brown will drop off, but as the buds are not always killed, the trees put out new foliage as the season progresses, and eventually they assume their natural appearance. Conversely, young trees up to two feet in height, or recently planted trees, may die because most of their buds (which produce new foliage) are more readily killed. As buds are very sensitive and easily damaged, no attempt should be made to determine whether they are alive until warmer temperatures prevail. Also, because trees have amazing recuperative powers, the homeowner should not be hasty in removing the affected trees until the full extent of the damage can be determined.

Little can be done to avoid winter drying. However, certain precautions that homeowners may take to protect their trees are: Installing a “burlap” shield located on the windward side of the tree; spraying the foliage in late fall with anti-transpirants available in aerosol spray form at most garden centers; providing an abundance of water to the trees throughout the fall; spraying affected trees with water as soon as symptoms become evident in late March or early April to reduce the extent of injury; planting trees in protected locations; and most importantly, selecting tree species least susceptible to this form of damage.

In general, spruces are most tolerant while other conifers, such as cedars, firs and especially pines, usually suffer most severely.