



UNIVERSITY of NEW HAMPSHIRE Cooperative Extension

Advice For Operators Of Sugarbushes Damaged By The January 1998 Ice Storm

The ice storm has NH maple producers reporting damage estimates from minor to severe. Although much of the damage occurred on higher elevations and eastern slopes, each situation is unique. Maple producers are advised to examine their operations, when it is safe, not to panic, and to get professional advice.

DON'T PANIC - Stop, think and be patient! New Hampshire's maple trees went into dormancy in good health with large reserves of stored food. You'll have time later to deal with salvage issues.

SAFETY FIRST AND COMMON SENSE - Clearing access roads and pipelines is dangerous with hanging limbs and bent trees. Use all safety precautions at all times! Do not enter your sugar bush alone. Avoid going in the woods during windy conditions. Not all of the broken tops, limbs and ice have fallen yet. Debris on the ground can hinder access and restrict escape paths. Conditions in the woods are still dangerous.

GET PROFESSIONAL ADVICE - Each stand is different. Site quality is an important factor and on-site assessment is crucial to protecting your investment. In past years, recommendations not to tap were based a lack of food reserves in the trees. This is not the case in 1998! While the ice damage ranges from broken branches to complete loss of tops, ample food reserves are present even in the most severely damaged trees. Once the site has been assessed, guidelines for tapping individual trees in 1998 are based on the percent of tree crown loss. Be aware that reduced sugar and sap production will be evident in future years in storm damaged trees.

As a maple producer, you are encouraged to examine your own woods, to make an estimate of damage, and then report this information to your local Farm Service Agency office. The reported information will help you and others, since it documents conditions, particularly losses in your county. Ice Storm Assistance for Farmers describes the different programs available and lists the county Farm Service Agency Offices.

What is going to happen to my trees?

Selected Highlights from the North American Maple Project (NAMP), an international study involving the United states and Canada to evaluate the condition of Sugar Maple throughout the region. (prior to the ice storm)

How much dieback is "normal" for sugar maple trees? Over 90% of sugar maples monitored in the NAMP have 0 to 15% crown dieback. Most of these trees are healthy and have an excellent chance of long-term survival, barring any significant future disturbance.

Should unhealthy trees be salvaged?

Crown conditions can be used to indicate which trees will be surviving into the future. NAMP has followed tree health and survival over a seven-year period. Trees with 20-35% crown dieback had a 90-99% chance of survival and an 80% chance of returning to a healthy condition. Trees with more than a 35% crown dieback had a 65% chance of dying or remaining unhealthy.

Is tap hole closure important to tree health?

Trees that close tapholes rapidly following the sugaring year produce more clear sapwood for future tapping. NAMP data shows that trees with greater than 35% dieback close tap holes more slowly. High dieback can be used as a signal to limit the number of tap holes. NAMP has found that vigorous trees tend to have fewer than 2 open tapholes in the summer following tapping.

Other highlights: NAMP information indicates that major bole and /or root damage may result in tree mortality. Crown dieback of 50% or greater is associated with bole and/or root damage.

The impact of stress from defoliation or adverse weather on trees depends on many factors, such as the conditions of trees prior to the disturbance, the site where the trees are growing, and the timing and duration of the disturbance.

Healthy trees translate into good growth, higher sap volume, and more resistant trees. A healthy stand begins with the site. While sugar maples grow on a variety of soils and sites, less healthy trees can be expected on less favorable sites. Once a stand starts to decline, it is difficult for overstory trees to recover.

Tapping Guidelines¹

New Hampshire's maple trees went into dormancy in very good health with large reserves of stored food. Since each stand is different, site quality is an important factor, and an on-site assessment by a forester may be crucial to protecting your investment. The following guidelines for tapping individual trees is based upon on the per cent of crown loss due to the ice storm.

Tapping Recommendations Based On Crown Loss

If tree crown loss is:	Recommendation is:
Less than 10%	OK to tap normally

11 - 25 %	Tap lightly Reduce number of taps 12 - 18 inches = 1 tap Over 18 inches = 2 taps
26 - 75 %	Trees are at risk. Seek professional advice. May not want to tap.
76 %+	Poor chance of tree survival. Seek professional advice. May tap now / salvage later.

¹Source: Vermont Department of Forests, Parks, and Recreation