What to do about the ice storm-damaged trees?

John Ball | SDSU Extension Forestry/South Dakota Department of Agriculture Forest Health

The recent ice storm has left broken trees in its wake along with downed power lines. What can a tree owner do to care for their ice-damaged trees? Here are a few tips.

Many young trees were bent under the weight of ice. A common reaction was to go out and try to knock off the ice to reduce the weight. This can result in branch breakage and further damage to the tree particularly evergreens such as pines and spruce. Generally it is best to allow the ice to melt and allow the tree to slowly resume its natural shape. Do not spray any de-icing salts on the trees as these chemicals are toxic to plants. Also avoid the temptation to try to melt the ice with a blow torch or other flame source. This action may result in burned buds and damage other tissue as well.

What to do with your small trees damaged by the ice storm

Once the ice has melted, it is time to assess the damage to your trees. Young trees, those less than 15 feet tall, may be saved with corrective pruning if only a few limbs or the tip of the terminals were broken. If the tree is broken near the base or more than 1/3 of the limbs are broken it may be best to remove the tree and start over.

If the terminal is broken (A), trim back to the highest upright limb (a limb is a branch attached to the trunk) that is at least half the diameter of the adjacent trunk (B) and it may assume the role of a new leader. This technique works well for deciduous and evergreen trees as long as the leader is less than about 3/4-inch diameter. You may want to also bend the branch upward and use a biodegradable wrap (cotton or linen) to attach the bent branch to a pole. This technique will generally result in the branch assuming the leader position quicker and is strongly advised when attempting to replace the leader of an evergreen such as a pine or spruce.

The stem should be cut cleanly at the top of the point where the limb meets the trunk but the angle is not important (C).

Broken branches on tree should be cleanly pruned back to the larger

limb or trunk to which they are attached (1). This pruning can be accomplished with a hand-pruner (for branches less than ½ inch diameter) or a small saw for larger branches. When using a hand-pruner, prune with the blade side closest to the larger limb or trunk (2). Do not leave a stub nor cut into the limb as you close the blades. Making the proper cut is the best means of protecting the tree from decay (3), tree paints or wound dressings do not protect against decay and can even increase the possibility of decay by keeping the

interior too moist.

If the young tree is broken near the ground, it should be removed. Cutting it back to the ground and allow it to sprout might produce a new tree, but not necessary the same tree you had. Most of our deciduous, ornamental trees are budded trees, the part above the ground is the desired plant but the roots are just seedling grown and may not even be the same species. This is also true for our fruit trees so any fruit tree broken off near the base should be removed rather than allowed to sprout back.

Evergreens will not sprout back from the base so any firs, pines or spruces broken near the base should be removed.

What to do with mature

trees damaged by the ice storm

Homeowners should also use extreme care when attempting to clean up broken trees and branches. Many trees have broken branches that are pinned to the ground under the weight of the remainder of the tree. Cutting a pinned branch may result in releasing the pressure creating what is known as a "spring pole," a branch that can quickly return to its original position and strike the person pruning, or their saw, in the process. Trees have also been known to roll when a broken branch is freed crushing the worker beneath 5 to 10-tons of wood.

Homeowners should consider hiring professional arborists to do the major clean-up effort as these individuals have the training and equipment to work safely in this hazardous environment.

If the tree is deeply split, the best option is to remove the tree. Attempting to restore the tree by tying together the split will generally just delay the death a few years as the tree becomes strangled by the ties. Valuable trees that have been split, though not to the degree as pictured, can be saved by being pulled back together and then held in place by tree support systems. These systems are best left to professional arborists who have the training to install the proper hardware that will support the tree. Tree support systems are costly and a homeowner should expect to pay anywhere from several hundred to

several thousands of dollars to have them installed in their tree.

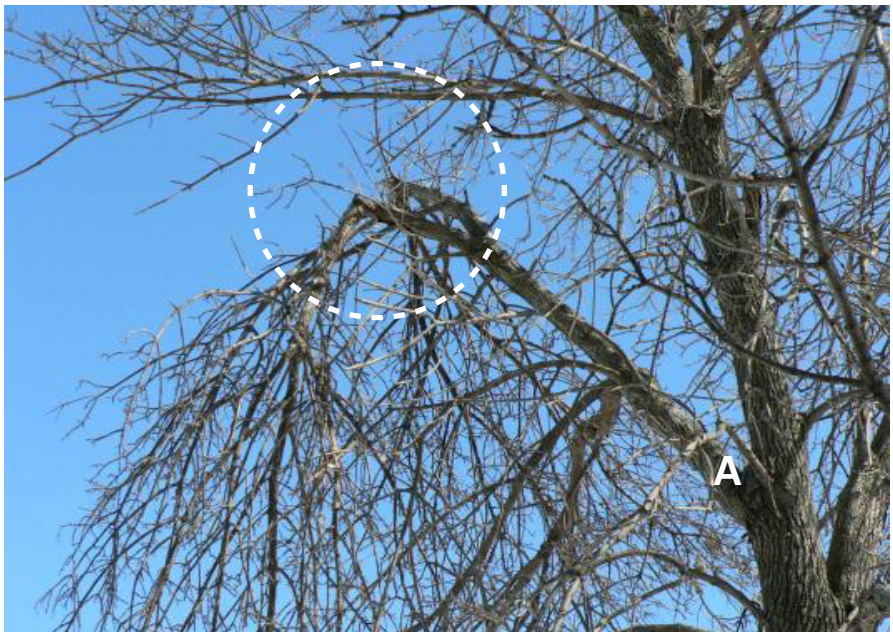
If the mature tree has the top 1/3 of the canopy broken out or more

than 1/2 of the limbs broken, it may be better to remove the tree rather save it. This also applies to trees with large wounds from broken limbs peeling off the trunk. These damaged trees may survive the loss but their ornamental and shade value will be much reduced. The tree will also be more susceptible

to decay and may have a much reduced life span as more branches and limbs break due to decay.

If the tree is worth saving, the broken limbs should be pruned back to the trunk (A) rather than leave a stub. Broken limbs and branches should be pruned back to the limb or trunk they are attached. Do not top ice-damaged trees! Trees that have the terminal or terminal broken out should be pruned back to a limb at least one-third the diameter of the terminal. Stubbing the terminal or cutting it back to a small limb or branch will result in extensive decay or the production of watersprouts.

Instead use thinning cuts which are cut just outside of the collar, a slightly raised area adjacent to the base of the branch or limb. A cut made at this point will help reduce the formation of decay and help maintain a more natural appearance to the tree. The top of the cut should be at the branch bark ridge, the upswell of tissue at the juncture where the limb meets the trunk. The finished pruning cut should be sloped slightly outward towards the base. There is no need to use pruning paint or other materials to seal the wound. It will be common to have pruning wounds on maples and birch bleed, drip a slightly sweet clear sap from the wound, when pruned at this time of year.



The "bleeding" is not harmful to the tree and will stop when the tree buds begin to expand with the warmer weather.

What to look for when hiring a professional tree company

Tree work is among the highest risk professions in the United States. The combination of working at heights, with heavy loads, and

power equipment creates an environment where incidents are common. Chainsaws injures are a common occurrence when tree owners attempt to do storm clean-up. If operating a chainsaw all the personal protective equipment should be used and this includes a helmet, hearing protection, eye protection and cut-resistant chaps. Sturdy, cut-resistant boots and gloves are also necessary. It is strongly advised that tree owners limit their tree pruning to hand tools and remain on the ground.

When hiring a company to prune or remove your ice-damaged tree, make sure to hire a professional. After a storm it is common for people to stop by and offer to do the work. Many times these individuals have little or no experience in doing this high risk work and may either injure themselves or damage the tree further. Tree owners should hire only companies that have worker compensation insurance for their employees and general liability insurance. It is also a good idea to hire companies that have arborists certified by the South Dakota Arborist Association or the International Society of Arboriculture.

SDSU Extension

South Dakota State University, South Dakota counties, and U.S. Department of Agriculture cooperating. South Dakota State University is an Affirmative Action/Equal Opportunity Employer and offers all benefits, services, education, and employment opportunities without regard for race, color, creed, religion, national origin, ancestry, citizenship, age, gender, sexual orientation, disability, or Vietnam Era veteran status.

South Dakota Department of Agriculture

Publication: 06-1001-2013