

Written by Bonsai King

Monday, 30 June 2008 23:25 - Last Updated Monday, 15 September 2008 13:29

---

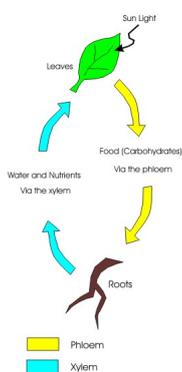
Dieback occurs when a branch, bonsai, or a whole forest dies. There are almost countless of reason why dieback occurs. but in this article we will be concentrating on the dieback of a branch or dieback of the whole bonsai itself. This is primarily caused by extreme weather conditions, insects, growth of suckers, too early pruning, huge cuts on trunk and branch, and dead zones in the soil. In this article, I want to discuss the most common causes of dieback in bonsai.

Healing and Humidity.

The process of healing is a complex chemical reaction which needs some amount of time to accomplish. At the same time evaporation through the open wounds can not be stopped. There is a race between healing and drying. If a wounded part of a bonsai dries up before it heals, that part will die. A huge cut sometimes cause the death of the whole branch . That is why a trunk chop is always feared, not only because it is the biggest wound you could inflict on a bonsai, but also because there is a good chance that whole stump could dry up before it could heal.

The best place to heal a wound is in a high humidity environment

To explain die back, we must understand the circulatory system of a tree.



Here you see that to complete the circulation you need phloem, xylem, leaves, and roots.

Written by Bonsai King

Monday, 30 June 2008 23:25 - Last Updated Monday, 15 September 2008 13:29

---

Cutting out one from the circle will cut circulation and cause die back. As you can see the phloem connects to the xylem via the roots and the xylem connects to the phloem via the leaves. Here you can see that roots and leaves are important as they are the u-turn points of the circulation. Hence removing a leaf from a tip of a branch without a viable bud waiting to grow at its base will kill the branch at that point. If the cutting wound is big, the bud could dry up before the wound heals causing die back at that point. I do not advise pinching trees that are not conifers. Pinching creates a large wound on a small branch, it sometimes crushes the young stems if you do not pull out the whole of it. Use sharp scissors for pinching. You can abandon pinching completely as this method was popularized long ago when all bonsai were conifers.

Dieback can also be caused by extreme damage to the roots either by insect infestation, rotting, and excessive pruning.