

## Sharpening bonsai tools

Most bonsai tools are made of high carbon steel or stainless steel.

High carbon steels are used in tool and gardening implement applications (including bonsai tools) along with razor strip manufacture, having a content typically of 1% to 1.25 % carbon with little chrome or nickel content.

Stainless steels used typically for the manufacture of knives and razor strip, but also for bonsai tools, have a content of about .67% C and 12% Cr.

This stainless steel quality is not to be confused with other stainless steel qualities.

Stainless steel is a generic term for a myriad of different stainless steel qualities, not all of which are very hard.

***Carbon steel stays sharper for longer***, but rusts and is comparatively heavier than stainless.

***Stainless dulls quicker***, is more expensive, but is rust resistant and lighter.

Whichever type of steel tool is used it is necessary to bring a sharp edge back to the tool after it has been used for a time.

Honing is the best way to sharpen an edge and there are several materials that can be used for honing an edge. Some people use an extra-fine file and simply let the file lightly go over the edge in one direction and then in another direction. The optimum angle for honing is between 15 and 17 degrees. The same number of passes from both directions is important so that the edge will have equal results along both sides of the edge.

A second way of honing can be done with diamond impregnated honing sticks. These usually come in three grades: coarse medium and fine. In most cases, using the coarse grade is not necessary. A few passes on both sides of the edge with a medium grade hone, followed but a few passes with the fine hone should do the trick.

A third type of honing can be done with an actual honing wet stone. In the USA, such stones are often called Arkansas honing stones since they often originate in that state. They are all a fine grade stone and produce a very fine edge. Arkansas stone is often considered the best material for carvers who sharpen their carving knives frequently to keep them as sharp as possible. They are also called wet stones because they often require a drop or two of honing oil to help create the finest honed edge. However, if it is necessary to speed the process along because the tool is very dull, a few passes on a dry stone on both sides of the edge may be needed, followed by honing with oil on the same stone. This seems to be the most preferred honing method by many bonsai enthusiasts.

In all cases, one must be very careful not to rock the hone on the edge so that it does not remove too much material from the top or bottom of the cutting edge. It takes practice to hone an edge and it may be best to carry out that practice on an inexpensive cutting tool of some sort before starting on a bonsai tool. Usually the weight of the hone is enough to produces the desired sharpness. Rarely is it necessary or recommended to press hard on the edge with the hone because it may eventually cause irreparable damage to the edge that will need professional attention.

Finally, when a bonsai tool like a concave cutter has been well cared for over many years and has been sharpened when needed, sometimes a gap will form because the material has been removed from both edges. Such a tool may seem to lessen in its efficiency as a bonsai pruning tool. That can be rectified by simply honing the stopper that is below the riveted juncture of the two parts that make up the concave sutter. If the stopper is honed on the inside area, it will permit the edges to come together and close once again to let the tool give many more years of fine service for it's owner.