

Pruning and Pinching Bonsai

Pruning is the most important technique to learn in bonsai, (except the other techniques.) Pruning is also referred to as “cutting back”. There is no simple “this is how you prune” summary; it depends on individual species, goals, and season.

Every technique which we apply is done with a purpose and goal in mind. The goals of pruning are both functional (to improve the vigor of the tree) and the appearance (aesthetics) of the tree.

1) **Function**

Eliminate flaws

Re-direct energy from exterior to interior

Improve photosynthetic efficiency

Some branches are in “development” and some in “refinement” (Goals are different)

2) **Aesthetics (beauty)**

Ramification (2 branches to 4 branches to 8 branches...)

Even foliage distribution (eliminate areas of heavy foliage mass)

Create “Negative Space” where foliage is not desired

Improve “line” or visual flow of the bonsai

Improve taper (thick to thin (or coarse to fine) branching)

Pruning or pinching reduces the draw of AUXINS. Auxins are plant hormones, produced in the roots and transported to the branch tips. Auxins suppress the growth of side buds on the branch closer to the trunk. Reducing the draw releases these buds to develop. It transfers energy from the branch tip to interior shoots.

Creating a bonsai done in Two Stages: Development and Refinement

Development Stage is focused on building the basic branch structure

Length

Thickness

Foliage mass

Rebuilding roots

Healing wounds

The Refinement Stage is focused on improving ramification (twigginess), shorter internodes, and coarse-to-fine-to-finest branch size. These attributes increase the appearance of AGE of a bonsai.

LATE WINTER to EARLY SPRING is the BEST TIME TO PRUNE (tree has maximum stored energy just prior to bud burst). Once new growth has hardened off, the tree can again begin to produce and store energy, permitting additional pruning. Surplus energy within the tree is required to heal cuts and restore lost foliage after pruning.

- ✓ Start pruning your tree in order as they begin bud burst in the Spring but after they harden off (petioles become woody and leaves have a cuticle.)
- ✓ The largest leaves on branch tips may be removed (partial defoliation) to allow interior light to the interior (maples, hornbeams, oaks, crabapples)
- ✓ remove new growth in crotches, unless you plan to “cut back” to that growth later.
- ✓ If a branch is too thin for its position in the tree, allow it to run and acquire as much foliage as possible. Limb diameter increases with foliage mass.
- ✓ Crotch growth or “trios” (3 branches at one site) may lead to unsightly knobs and reverse taper. Remove them.
- ✓ Usually remove all branches growing vertically downward and all upward vertically growing interior branches. Upward growing tip branches grow faster, so if you want that branch to gain thickness, leave the vertical growth at the tip until it reaches the thickness you want.

- ✓ Always cut back to at least two buds or leaf pairs to develop ramification. Cutting back to the ideal length is not always possible on first pruning and may weaken the branch too much.
- ✓ Remove all “cross-over” shoots which cross over the trunk or another branch

Pruning is Routine Maintenance. We perform maintenance pruning for 3 reasons:

- 1) Clean branches to allow light in, air exchange for CO₂, and space for wiring
- 2) To manage growth (to keep tree small and compact) Also distributes energy to interior and lower branches
- 3) To make structural improvements

Bonsai, practiced at a higher level, requires a design plan BEFORE you pick up your scissors.

Pruning should make a Structural Improvement every time we do it:

- 1) Remove “coarseness” (thick branches in upper tree)
- 2) Reduce internode length (short to shorter to shortest)
- 3) Improve taper (thick to thinner to thinnest...)
- 4) Improve quality of “line” (angularity)

Liquid cut paste should be applied to large branch cuts (greater than ¼ inch) to prevent desiccation. Large branch cuts should preserve the branch collar for fastest healing.

PINCHING is primarily a technique for improving internode length for some deciduous bonsai in the REFINEMENT phase of development.

It is primarily applied to Japanese Maples and Trident Maples. Older books and teachers, in this country, described it for foliage management of Junipers; THAT IS WRONG! Pinching tip growth in junipers can severely weaken the tree and is not advisable.

Typically, by pinching off the tiny leaf bud as it first emerges from the growing tips of strong maple shoots, in Spring, (with tweezers) we can shorten the internode length to that leaf pair and encourage side shoots. It should be applied only to the strongest shoots in vigorous maples.

Pinching the soft new foliage of Redwoods and some other conifers is also a particularly useful technique to improve the ramification of that species.