

# Tidbits – notes from bonsai blogs

Compiled by Les Lonsdale

Below is a compilation of suggestions and advice gleaned from reading bonsai blogs during the Summer of 2020. Most of the information is from Harry Harrington's blog in [Bonsai4Me.com](http://Bonsai4Me.com), but a small portion came from Adam Lavigne's blog in [adamaskwhy.com](http://adamaskwhy.com). Much information and wisdom can be found by searching and reading the blogs of experienced bonsai artists. We can learn from other's experiences and avoid mistakes by taking advantage of the online blogs that are available on the Internet. A list of some other blogs that I visit periodically can be found at the end of this paper. I listed these 'tidbits' by topic; the topic is not exhaustive, but just information that I found to be inspiring and helpful. I hope that you can use some of this information!

## Fertilizing:

- Organic fertilizers are not effective until the average daily temperatures are above 55°F. If you want to fertilize developing trees sooner, use a chemical fertilizer.
- No need to use 0-10-10 in the Fall, as trees stop absorbing nitrogen when they enter dormancy and they know when to stop growing in the Fall.
- Solid organic fertilizer is effective for 6-8 weeks. Chemical fertilizers must be applied more often.
- Trees in training- fertilize early and often. Alternate chemical/organic fertilizer.
- Mature trees- do not fertilize until after the Spring flush to avoid long internodes and oversize leaves, and then use organic only, or ½ strength chemical.
- Flowering trees- avoid high nitrogen in Spring but increase phosphorus for blooming.
- Conifers (except Pines)- fertilize early with organic.
- Pines- For juvenile, fertilize in early Spring; for mature, do not fertilize until after candle elongation. Then do not fertilize again until Fall. Teabags are recommended, as pines are not re-potted as often, and loose fertilizer would accumulate in the soil. Otherwise, use chemical fertilizer at ½ strength.
- Stop fertilization for all trees except tropical's in Summer if temperatures reach higher than 95°F. Also, stop all fertilizer in Winter.

## Defoliation:

- Reasons to defoliate:
  1. To stimulate latent buds (backbudding) by exposing them to more light which leads to...
  2. Ramification- branching of lateral branches which leads to ...
  3. Increase of total amount of leaves on the tree which leads to ...

4. Reduction of leaf size, since there is only a finite amount of nutrients available for each leaf. (Ex. A tree with 200 leaves will have smaller leaves than the same tree if it only had 100 leaves).
  5. Balances the energy of the tree by not defoliating weak branches, which allows them to grow faster and get a head start on the rest of the defoliated tree.
  6. For prettier, smaller leaves if done before a showing of the tree.
  7. For better Fall colors, the 2<sup>nd</sup> or 3<sup>rd</sup> flush of growth does not contain as much chlorophyll and therefore loses it more quickly in the Fall.
  8. Allows thread-grafting in the Summer, since the branches are leaf-free.
  9. Removing terminal buds on all branches also promotes backbudding and therefore ramification of side branches.
- Only for healthy, mature, deciduous trees.
  - Leave petiole, only cut off leaf.
  - Reduce water after defoliation.
  - Fruiting trees do not respond well to this procedure.
  - Better to only partially defoliate red maples, and not same year as re-potting.
  - Do not defoliate red Japanese maples, which are weaker than the green-leaf variety.
  - Most deciduous, as well as broadleaf evergreens can be defoliated. If not sure, only partially defoliate strongest areas of tree, leaving weak areas to balance energy.
  - Only partially defoliate: Japanese maples, beeches, hornbeams, oaks.

### Pruning:

- It is not good to keep a tree 'perfectly trimmed' all the time. A tree needs to grow freely at times to produce more food (from photosynthesis) for proper health.
- For developing trees, it is better to let them grow and extend until late Summer (July-August) in order to produce more biomass. Then hard prune back to 2 leaves for each branch, depending on the planned structure of the tree.
- For mature trees, do not prune until late Spring after initial growth hardens off. Prune well, then let grow the rest of the year, but keep the apex in check. Watch for over-thickening of branches, and prune back when desired thickness is achieved. Of course, if a tree is going to be displayed, it can be pruned properly.
- Do not cut off all un-wanted branches from your mature trees in the Spring. Let the un-wanted branches grow wild to use up a lot of energy that would otherwise increase the internode length as well as the size of the leaves on the good branches.

- Another similar technique is to allow a 'sap-drawer' branch at the terminal end of a good branch to extend wildly in the Spring to use the excess energy, and therefore keep your 'good branch' internodes/leaves smaller. The 'sap-drawers' can be removed after the Spring flush is over, or before they spoil the size of the branch that they are benefiting.
- Hard prune deciduous trees again in Winter after leaves have fallen and the silhouette is more easily seen. It is better to wait until late Winter, just before bud swell in early Spring so that there is not such a lag time before wounds can begin to heal.
- Winter is a good time to prune most other trees as well (except azaleas and tropicals). It is also the best time to prune juniper and Hinoki foliage.

### **Soil mixes:**

- For newly collected yamadori, developing trees, and any weak tree with a poor root system – use a coarse, fast-draining mix [such as large pumice, bark, lava rock, shredded sphagnum, charcoal, + a small amount of original soil (for transfer of mycorrhizae)]. Top off with small size potting mix and cover with a layer of shredded sphagnum to hold in moisture and encourage surface roots.
- Rhizotonic by Canna is an excellent root stimulator for newly planted material!
- For mature trees - use a finer soil mix (small to medium) depending on the size of the tree with little to no organic components. This encourages finer roots, and likewise, finer top growth.

### **Jin/Shari:**

- Bark can be stripped from branch/trunk more easily during growing season. Then, after branch has dried (late Fall-Winter) carving can take place.
- If jinning a branch stub that is of a large (near 1") diameter, avoid the 'traditional whittling' technique which would create an undesirable 'parrots' beak' effect. Instead, hollow out the middle of the branch, then peel the outer wood in an asymmetrical way so that it will look more natural.
- If a grey appearance is preferred to the 'bleached white' effect that lime-sulfur provides, either apply a grey or diluted black water-soluble ink or paint to the lime-sulfur or rub a slurry of wet ashes into the limb/trunk (apply cross-grain) before applying the LS over the ashes. For darker tones, use more ash and only 1 coat of LS. For lighter tones, use less ash and 2 coats of LS.
- If a wood-hardener is to be used in order to preserve the jin/shari, it should be applied after the LS.

- Lime sulfur should be applied to damp wood for better penetration.
- Superglue works better than wood-hardener for strengthening wood, especially near the soil level where the wood stays damp. Dry the wood as much as possible. Apply in thin layers until saturated (shiny). After it is dried, sand away the 'shine'.

### **Tips for Forests:**

- Make a grid of wired-together chopsticks in the bottom of the tray for fixing tie-down wires.
- Primary, dominant trees should be planted higher in the tray while the smaller trees should be planted lower.
- Front-row trees should be inclined slightly forward to create a sense of height.
- Primary, dominant trees' branches should start higher up on the trunk and lower on the trunk for smaller trees.
- Dominant trees tend to grow straight whereas 'lesser' trees on outskirts of the forest grow away from the larger trees, seeking light.
- Inner branches are short or missing due to the lack of light inside the forest. Outer branches are searching for light and are thus thicker and longer.
- Shape/wire each tree before planting into forest, as afterwards will be more difficult.
- Moss (simulating grass) grows where the sunlight shines, so not much would be found in the interior of the forest. Use bark of some other ground cover and use moss mainly on the outside of the forest.
- Near-View = more developed trunk taper; branches much wider near base of tree; lower branches much thicker than higher branches; jin/shari more pronounced; Trunks more widely spaced; Trees fill most of container.
- Far-View = less trunk taper; not as many differences in lower vs higher branch width; not as much difference in lower vs higher branch thickness; jin/shari less pronounced; Trunks closer together; leave an expanse of empty space to simulate vast space.

### **Surface (nebari) roots:**

- Surface (nebari) roots can be added wherever they are needed by approach-grafting seedlings onto the trunk at the proper level in early Spring when the tree is transplanted. Take cuttings from the tree one or two years before and grow them for this purpose.
- Another method is to find long roots under the tree and guide them over to where you need surface roots. Carefully approach-graft them where needed.
- Chopsticks can be used to press down roots that are sticking up too high.

- Always prune thick nebari roots severely while letting the thin ones grow to balance the thickness of all the roots.
- Cover the surface of your pots with shredded sphagnum moss to encourage surface roots.

### **Yamadori collecting tips:**

- If feeder roots are too far from the base of the tree that you want to collect, perform a ground-layer\* in late Spring, one year before extracting the tree to allow sufficient feeder roots to be harvested with the tree.  
\*similar to an air-layer, but at ground level.
- See '*Soil Mixes*' pg.3 for proper soil mix for yamadori.
- A good technique for helping with recovery is to place entire newly collected tree into a large black bag and tie top closed. This will greatly increase the moisture level and help the tree to recover. After new growth appears make opening in top of bag for light.
- Another collection method which has proven very successful is to wrap the tree and roots in burlap which is filled with wet sphagnum. After arriving home, place tree 'as is' into its growing container and fill with very coarse soil mix.
- Fumigate newly collected material inside a large bag to prevent introducing pests to the rest of the collection.
- Use a systemic fungicide/pesticide as soon as it is feasible.
- If root ball is sparse, soak tree in a root stimulator (Rhizotonic by Canna is an excellent root stimulator) for several hours before planting into grow container.
- Keep newly collected material out of full sun for several weeks. If there is no shade available, drape the top of the tree with a shade cloth.
- Always use a little of the original soil in the potting mix to re-introduce any mycorrhizae that might be present.

### **Better Fall colors:**

- Defoliation in Summer leads to better colors in Fall, as there is not as much chlorophyll in the leaves after the 1<sup>st</sup> and especially after the 2<sup>nd</sup> defoliation.
- Low levels of nitrogen throughout the summer.
- An early cold spell in the Fall.
- If one particular branch turns earlier than the others, it may be an indication of a weak branch. Tag it and do not defoliate that branch next year.

### **Advice on Acer palmatum:**

- Red-leaf cultivars are more susceptible to leaf burn (wind/sun) and are generally 'weaker' than their green-leaf cousins. The leaves contain less chlorophyll and are therefore slower growing also.
- Remove over-sized leaves to let light penetrate inside the tree, but do not defoliate red Japanese maples.
- Do not defoliate any Japanese maples the same year that they are root pruned.
- Do not heavy prune in Spring, as they will bleed (lose sap). Hard prune early Summer.
- Pinch out elongating shoots in early Spring to keep short internodes. Use tweezers to pinch out the inner shoots before they are long enough to reach with fingers.
- In Spring, let the terminal bud at the end of a branch elongate into a 'sap drawer' which will draw some of the 'energy' away from the rest of the branch, leading to shorter internodes and smaller leaves in the rest of the branch. It can be removed after the Spring flush is complete.

### **Balancing energy on Black Pines:**

- All hard pruning as well as wiring and heavy bending should be done in late Fall or Winter.
- De-candling (mature pines only) is performed to regulate vigor (balance energy) in the tree, as pines are apically dominant.
- De-candling also stimulates back-budding thus increasing ramification and branch density. All of this will eventually lead to needle size reduction.
- De-candling (in the South) should be performed between June and July, starting with the lowest (weakest) part of the tree, then the middle of the tree (10 days later), and finally the top (strongest) of the tree (10 days later). This timing gives the lower section more time to grow back out.
- Leave between  $\frac{1}{8}$  –  $\frac{1}{2}$  inch of the new candle, depending on how much extension you want on that branch.
- Do not de-candle pines that have been recently re-potted, are weak, or are still in development.
- Another energy-balancing exercise is needle-plucking which should be performed in Fall. Remove the 3<sup>rd</sup> year's growth, leaving 7-12 pairs of needles in weak areas, 5-9 pairs in middle, and 3-7 pairs in strongest part of tree. The older needles are not providing nourishment to the tree any longer and block light from reaching the inner parts of the tree.

- Other tips for pines:
  - Reduce water in Spring for more compact candles.
  - Give pines as much sun as possible.
  - Do not fertilize until late Spring for more compact candles.
  - In Fall, select 2 terminal buds only for each branch. Remove all others.

### **Miscellaneous Tips:**

- Pipe cleaners are good for marking branches as a reminder for future work.
- Chalk is another way to mark branches for future removal or other work.
- Add ground-up moss to muck before use. It will grow on your muck wall.
- Instead of a rock slab for a forest, consider using a thin nylon cutting board to create an 'invisible' slab effect. The composition will be lighter, and it has a pleasing appearance.
- Keep a small spray bottle of 70% isopropyl alcohol or hydrogen peroxide with your tools. After any large pruning cuts, spray the cut immediately with the disinfectant before applying cut paste, to sterilize the wound and prevent infection. Spray your cutting tools also, to prevent any spread of disease from one tree to another.

### **A few of the good Bonsai Blogs available on the internet:**

- [Bonsai4Me.com](http://Bonsai4Me.com)      Harry Harrington
- [Adamaskwhy.com](http://Adamaskwhy.com)      Adam Lavigne
- [Bonsaitonight.com](http://Bonsaitonight.com)      Jonas Dupuich
- [Crataegus.com](http://Crataegus.com)      Michael Hagedorn
- [Kaizenbonsai.com](http://Kaizenbonsai.com)      Graham Potter

There are many more, but these are the ones I have visited most often.

These are some of the tips that I picked up from reading these bonsai blogs. Let's keep reading and keep learning!!

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