

Trident Maple (*Acer buergerianum*) - Bonsai Species Guide by Ian Barnes

Acer buergerianum, the Trident maple, is grown in many parts of the world as a "Street" tree due to its tolerance of pruning, dry soil and air-pollution; these attributes also make it excellent material for bonsai culture. Native to Korea, China and Japan, Trident maples can reach heights of 10 metres or more.

Acer buergerianum differs from its *Acer palmatum* relatives by virtue of its 3-lobed leaves (as opposed to the 5-lobed leaves of *Acer palmatum*). Leaves are dark-green above and blue-green underneath, turning beautiful shades of orange and red in autumn. New buds are a red / brown colour. Bark is buff and flakes revealing a soft-orange under-bark. In maturity the bark becomes darker.



Trident maples are a very vigorous species, particularly when grown in the ground and are very suitable for field growing to develop large trunks suitable for bonsai. The tree is strong and can take aggressive pruning / styling very well.

Bonsai Cultivation Notes

Position:

Acer buergerianum prefers lots of light, although it should be protected from too much direct sunlight during hot summer afternoons to avoid leaf-burn. Thick-trunked Trident specimens are often planted in relatively shallow bonsai pots that may dry quickly during the summer; these should also be provided with some shade from the afternoon sun. Roots have a high moisture content and are susceptible to frost damage.

Watering:

Be careful not to over-water; a well-draining soil mixture is advised.

Feeding:

Feed once a week for the first month after leaves appear in the spring to help strengthen new growth. Thereafter feed every two weeks until autumn.

Pruning:

Allow new growth to extend to 2-5 leaf pairs / nodes and then prune back to one or two pairs of leaves (depending on position on tree) throughout the growing season. Keep on top of the most vigorous shoots in the apex and upper branches to stop them becoming too thick and weakening the lower and inner branches. Continued pruning of these apical areas will distribute vigour throughout the tree.

Trident maples are very suitable for defoliation and leaf pinching techniques. To reduce the leaf-size, remove 30% of the tree's biggest leaves once every two years. With defoliation and increased ramification of the branches, leaf-size can be reduced dramatically.

Prune all branches back hard after leaf-fall or in late-winter. Removal of large branches or trunk-chopping should not be carried out in early-spring, as this can cause excessive sap-loss.

Wiring should be carried out with care as bark marks easily and branches thicken quickly.

Trident maples are very easy to approach and thread graft new branches and roots. However, they also back-bud easily and continually.

Repotting:

Annually as buds extend (early spring). Use a very free-draining soil mix. Tridents have very strong and vigorous root growth that is very suitable for the creation of good trunk-flare and nebari. Tolerant of aggressive root pruning.

Propagation:

Easy to propagate from seed; sow outside as soon as ripe. Air-layer in late-spring. Take hardwood cuttings in winter, softwood cuttings in summer.

Pests and Diseases:

Aphids, caterpillars, scale insects, mites and leaf-scorch.

Styling:

Suitable for all forms, except formal broom, with single or multiple trunks, in all sizes.

Acer buergerianum have powerful roots and are particularly suited to root-over-rock forms.



Example of a Trident maple (*Acer buergerianum*) bonsai.



This unusual root-over-rock style Trident maple received a Kokufu Award, the highest award presented in Japan for distinctive quality bonsai, at the 90th 2016 Kokufu Bonsai Exhibition.

Trident Maple Defoliation

New buds on Tridents come out in spring and the tree will be in full foliage by mid-spring. If left like this, the inner buds will be shaded and within a year they will all die. Also, the outer branch tips will thicken while the inner branches die and the tree will lose its soft look.



Trident maple bonsai, in full foliage by mid-spring.



If tree is not defoliated, inner buds will be shaded and die.

So, to protect the inner buds and create soft branching, perform defoliation. The goal is to get light to the inside of the tree so the back buds don't die. It also gets branching (ramification) and smaller leaves in quicker time.

Defoliation technique

Trident maples have an opposite leaf pattern, meaning new shoots extend from the centre of each pair of leaves. So, you cut back the shoots to the very first pair of leaves and then remove the remaining two leaves. It can be done in a single step; hold the shoot and the two leaves together and cut both the shoot and the first pair of leaves at the same time. Do this on the outside canopy of the entire tree. This will redirect the energy from the outside canopy to the inner buds and create growth balance. And, because the leaves are cut, the outer branches will cease to thicken. This allows light to enter, strengthening the inside and also creates a soft branch pattern.



New shoots extend from the centre of each pair of leaves.



Cut back shoots on the outside canopy of the entire tree.



Cut back the shoots to the very first pair of leaves and then remove the remaining two leaves.



Or, in a single step; hold the shoot and the two leaves together and cut both the shoot and the first pair of leaves at the same time.

In about one month, new leaves will appear. If the tree is strong, defoliate again. In one growing season, you can defoliate 2 or 3 times.

When you defoliate, you can also remove unwanted branches. Long branches can be cut back and congested areas can be thinned to 2 branches.



When you defoliate, you can also remove unwanted branches.



Defoliation helps create fine branching in a short amount of time.



Trident maple bonsai, outer canopy defoliated.



A Warning about Defoliation

Trees must be horticulturally and/or aesthetically ready for defoliation.

A tree must be healthy and vigorous before any leaf-cutting is carried out. The removal of the leaves from a tree is debilitating and will temporarily weaken any bonsai. Trees that are showing signs of disease or weak growth, trees that have been recently repotted or hard pruned, are not suitable for defoliating.

Defoliation is also a technique intended for "finished" bonsai; ie, a tree with trunk, primary, secondary and tertiary branches established. Defoliating a tree that requires branch or trunk building will greatly slow down development of these parts.

After defoliation, a tree's water needs will be lessened and watering should be reduced accordingly.

No fertilisation of the tree is required until the tree puts out at least two new leaves on its growth points.

Do not replot the tree after defoliation. (The double stress of simultaneous repotting and defoliation is to be avoided).

Always allow plenty of time for the tree to recover. If you wait too long to defoliate, you might put part, or all, of the tree at risk. Don't defoliate if there are less than two months of summer left. Defoliated trees need plenty of time to recover so that they will be at full strength going into winter.