



JAPANESE MAPLE PROPAGATION



Choose a shoot that 'snaps', as opposed to flexing or bending. The shoot should 'snap' around the middle (although the tip might still flex or bend, and the base might break). I take the cuttings just as the shoots start 'snapping'. This is mid-May in eastern Canada.

I collect the shoots early in the morning before sunrise. The day before I take the cuttings, I water my trees around 1pm. I don't know if this makes a difference, but somebody told me it does and I have not had any reason to question it.

My parent plants are fertilized heavily (at the very upper limit of what is reasonable) as of early spring. I also don't know if this matters, but things are going very well!

A lot of people dream of owning one big parent plant from which they would like to take cuttings forever. This is a false hope because juvenility is an important factor. My parent plants are always 3-5 years old, and are constantly rotating. This process also allows me to select the parent plants with the best traits generation after generation, which is a highly underrated and underdiscussed practice in North American bonsai.



I take one internode with a stem long enough to bury 3-5cm in the substrate.

Some people take 2 internodes because they like to bury 1 node in the substrate.

Both ways work equally for me, so I stopped burying a node: a node buried is a cutting lost.



This is where we're at



In this image I am using scissors to cut and shave the base and expose the cambium. Nowadays I very much prefer doing this with a grafting blade!

I make two back-to-back cuts, as you would for a scion graft (if you're looking for an image, scion grafts are well documented online).



I remove the leaf lobes in order to reduce the rate of transpiration.

The rate of transpiration can also be reduced by keeping the humidity high, misting regularly, and keeping the cuttings out of direct sun or wind.

You want as many factors as possible on your side in this race against the clock. A cutting does not have roots, and until it does it cannot effectively regain what it loses through transpiration.



I dip the base of the cutting in 0.8% IBA rooting hormone powder.

I also apply liquid cut paste to the tops. Some people don't do this, but I do on the assumption that it might reduce transpiration while also sealing a potential entry-point for pathogens.



I place the cuttings in sterile, well-rinsed and well-watered substrate. Do not water the substrate after inserting cuttings because you will wash away the hormone. I am misting so frequently that I don't have to water the substrate for 3-4 weeks (more than enough time for the hormone to do its job, I think)

My recommendation for substrate is 3 parts perlite, and 1 part coco fibre husk (or pine bark). Use small particles, but not dust.

In reality, I use whatever substrate happens to be closest to wherever I am standing. But again, I recommend starting with perlite and coco husk or bark.



This is a picture of a set-up I used with great success at home. This is a \$29CAD 'mini greenhouse', and a \$20CAD cool-mist humidifier. I would say that that's the bare minimum if you're semi-serious about this. If you're doing this 'just for fun' on your bonsai bench then you should not expect the highest possible success rates.

I added misting nozzles that were connected to a hose timer and garden hose. With this set-up I was misting for 15 seconds every 10 minutes during the day, and much less at night. The appropriate misting frequency will vary widely based on everything from weather to hose pressure. You can mist by hand too, but... Keep the leaf surface moist from sunrise to sunset. If the foliage goes dry for even a short period of time you are not giving these cuttings their best chance at success! Don't blame the cuttings, blame yourself!

This tent received morning sun (sunrise to 11am), and was in shade for the rest of the day.



Here is what the cuttings can look like by July or August of the same year (2-3 months post-cutting).

I repot mine, but I do not recommend that you repot yours until you're seeing good success rates. It is much safer to leave them in the tray all growing season, and carefully repot in late winter or early spring the following year (9-10 months post-cutting). Winter protection is critical.



Here is what the cuttings can look like in November (6 months post-cutting) in a best case scenario. Most of them will not push new growth like this, and that's fine! Just post the goods ones on social media and hide the others!

Other tips:

Use sterilized tools and work area. Re-sterilize in between parent plants. Use one tray or pot per parent plant if possible.

Bottom heat can help, but it's not necessary. Having it will be another factor on your side. In other words, I highly recommend it. Bottom heat around 23-24C (75F) will do the trick.

There are many factors and variables to control. You do not need all of them to be perfect, but when you deviate from perfection success rates drop.