



How to Propagate Camellias by Air Layer Method

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Propagation of Camellias

- ▶ There are many different methods used to propagate camellias. Some of these methods include:
 - ▶ Cuttings - obtaining new growth from a cultivar and “sticking” into media
 - ▶ Typically performed in early to mid summer, requires new growth, depends on location
 - ▶ Method used mostly by camellia nurseries for mass production of cultivars
 - ▶ Typically takes several years to develop into a blooming plant if well cared for
 - ▶ Several cuttings can be obtained from a single cultivar source because of size
 - ▶ Takes 8 to 12 weeks to confirm root take
 - ▶ Grafting – obtaining scions from a cultivar and grafting to root stock
 - ▶ There are many different types of grafting methods, but we typically see “cleft” grafting
 - ▶ Requires good root stock (sasanqua or japonica) to graft a scion
 - ▶ Scion must be that year’s new growth and have leaf buds
 - ▶ Multiple scions can be obtained from a single cultivar source because of size
 - ▶ Requires patience and can be difficult (success rate can be low for inexperienced gardeners)
 - ▶ Typically takes around 2 to 3 years for the graft to bloom if well cared for
 - ▶ Great way to obtain cultivars that don’t grow well on their own roots
 - ▶ Takes 8 to 12 weeks to confirm that graft took



Air Layer Method

- ▶ There are many different methods used to propagate camellias. Some of these methods include:
 - ▶ Air Layering
 - ▶ Can be performed any time of the year (note timing does make a difference)
 - ▶ Has a very high success rate if properly performed
 - ▶ What you propagate is what you get
 - ▶ You typically can see blooms the first year of the air layer depending on cultivar
 - ▶ One downside is you typically need a decent size plant to air layer
 - ▶ Know your cultivar, some don't grow well on own roots so air layering may not work. Reticulatas are a common camellia that don't grow well on their own roots
 - ▶ Air layers typically need to remain in a pot for the first year to help develop good roots, but some vigorous growing cultivars may be planted immediately depending on root growth
 - ▶ Usually since camellias like pruning, air layering is a great method to bet the best of both worlds, prune the tree and get a new tree in return.



Steps - Air Layer Method

- ▶ Steps to air layer method
 - ▶ Before you start, make sure you have the tools and supplies for the job
 - ▶ PPE to be safe!
 - ▶ Isopropyl alcohol (70%) or equivalent disinfectant
 - ▶ Rooting hormone in powder form
 - ▶ Fungicide (recommend Captan)
 - ▶ Sphagnum moss – note: **not peat moss**
 - ▶ Heavy duty aluminum foil and saran wrap
 - ▶ Sharp knife to cut the area of the air layer on the branch, sharp is key!
 - ▶ Small paint brush for your powder hormone
 - ▶ Twist ties or wire to secure your foil to the branch



Steps - Air Layer Method

- ▶ Steps to air layer method
 - ▶ Before you pick a camellia cultivar
 - ▶ You will need to pre-soak your sphagnum moss in a water and fungicide bath
 - ▶ Take water and mix the fungicide concentrate into the water at the recommended dose
 - ▶ If you do not use a fungicide in the bath, during the rooting process you may encounter issues that could result in failure
 - ▶ Insert the sphagnum moss into the water bath
 - ▶ Time of soak varies, some perform over night, some do for a few hours
 - ▶ The moss needs to have soaked long enough to absorb a significant amount of moisture
 - ▶ Pick your camellia and pick a branch – Label it with some type of flagging with the cultivars name and your name
 - ▶ Make sure the plant is large enough to perform an air layer on
 - ▶ Choose a branch that is in good health and that is no larger than your thumb in diameter. Anything larger than this can be difficult to root, but has been done
 - ▶ Prepare the branch for air layering by first pruning it to what you want it to look like when you harvest the air layer. This may take some vision and inspection of the branch
 - ▶ Vertical branches are always preferred, however not always available
 - ▶ Make sure you have room to cut a 1 ½ to 2 inch incision about 18 to 24 inches from the tip of the branch. It really needs to be smooth with no branch "stubs" or removal of the bark and cambium layer could be more difficult
 - ▶ Make sure that there is room to place the foil. Placement is critical to get a good seal of the wound area



Steps - Air Layer Method

- ▶ Steps to air layer method (continued)

- ▶ SO....The branch has been chosen

- ▶ Disinfect the knife or cutting tool you are going to use for the job. Do this **EVERYTIME** between air layers to help prevent spread of disease and to make sure you don't spread between variegated versus non-variegated camellias
 - ▶ Make two circular incisions perpendicular to the branch approximately 1 ½ to 2 inches apart from each other, again starting about 18 to 24 inches from the tip of the branch selected
 - ▶ Make a long incision parallel to the branch between the two circular incisions to connect. You want to remove all the bark and cambium layer between the two perpendicular circular incisions.
 - ▶ ***THIS IS THE MOST IMPORTANT STEP TO PREVENT FAILURE:*** Remove **ALL** the green cambium layer from all around the 1 ½ to 2 inch area where you have removed the bark. If you don't remove it all, the branch will not produce roots and you will be very disappointed when you are ready to harvest the branch. The cambium layer is very thin and can be difficult to see but you must confirm that it has been removed or the air layer will likely not work
 - ▶ Once the cambium layer is removed, with your finger, place a very small amount of water on the wound area to moisten the section to receive the rooting hormone. I have found that this helps the rooting hormone stick during the next several steps. You can also use a small spray bottle of water versus touching the wound
 - ▶ Take your small paint brush, dip in your powder rooting hormone, and place onto the wounded area. Note the upper cut section is where the roots will form, so make sure the hormone is in contact there



Steps - Air Layer Method

- ▶ Steps to air layer method (continued)

- ▶ Wrapping the wound

- ▶ On the ground, take a piece of aluminum foil with the shiny side facing up, place saran wrap on the foil. This will be prepared to receive the sphagnum moss. You can break this into two steps if you want
 - ▶ Wring out a large ball of the sphagnum moss so that it is damp but not dripping wet. This should be in a good-sized ball shape when held between your hands, maybe 4 or 5 inches in diameter
 - ▶ Place on the saran wrap and make a channel in the middle that mimics the branch wound area. Sprinkle some more rooting hormone in that area
 - ▶ Take the foil and/or saran wrap in your hands and place carefully around the wound. You want to make sure that the sphagnum moss surrounds and covers the wound. Make sure the foil on each end is wrapped tightly wrapped and secured with twist ties or wire
 - ▶ The twist ties will help to prevent rainwater from leaching into the area and help keep the foil on the branch during weather.
 - ▶ **Now for the hard part....no peeking!**
 - ▶ The air layers should be checked periodically for damage to the foil. If damaged by weather, squirrels, or birds, repair as needed with more foil. DON'T REMOVE just add more foil
 - ▶ You will have to wait about 6 months from performing the air layer, then the air layer will be ready to harvest



Steps - Air Layer Method

- ▶ Harvesting – after 5 to 6 months
 - ▶ Cut the branch 2 to 3 inches below the foil. Don't cut above the foil or you will be cutting off the roots. I know this sounds crazy, but when you are excited anything can happen!
 - ▶ Don't disturb the moss or roots. They should be planted as is. Since the roots will be very delicate, take caution when moving them around and preparing for planting
 - ▶ Have a 1-gallon pot ready with planting media
 - ▶ Planting media should be well drained as camellias hate wet feet and will root rot
 - ▶ I use a combination of fine pine bark, sand, and perlite. Be careful with store bought medium as it may not be well drained and typically has fertilizer mixed in.
 - ▶ When planting the air layer, keep the roots towards the top of the container. If you plant too deep it could kill the air layer.
 - ▶ Make sure you stake and tie off the air layer with a piece of bamboo to keep it from blowing over.
 - ▶ I typically do not fertilize the first year to allow roots to get established.
 - ▶ Also, if you remove all bloom buds, with the exception of 1 or 2 from the air layer, the root system will develop better and typically faster. This sacrifice will give you better results the following year
 - ▶ Keep the air layer in a pot for at least 1 year before planting.
 - ▶ Remember to water sparingly! It's a small plant so it won't need a lot of water. Keep it moist, not too dry and not too wet, that easy right!! Just because it has a lot of leaves, it doesn't have a lot of roots. Overwatering will rot it. So, I typically keep mine on the dry side and check it often.



Air Layering and TCC

- ▶ You're a master!
 - ▶ Now that you have the steps, go have some fun and share with your friends
 - ▶ Please join our club: Our club provides great opportunities for you to get information on how to propagate camellias, care for them, join in fun activities in the garden, and show your camellias!
 - ▶ Please join the American Camellia Society. They are a great organization with great benefits. Check out their website and the attached brochure to join.
 - ▶ QUESTIONS?
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