Basic Plant Propagation

How to Magically and Easily Multiply Plants,
Using the Softwood Cutting Method

There are several ways to propagate plants. Propagation simply means "breeding of specimens of a plant from the parent stock."

Some of the ways to propagate plants include:

1. Growing from seed irises or

2. Dividing, such as agapanthus

Today, we'll demonstrate softwood cuttings

"Softwood cutting" means what it sounds like: non-woody stems of perennials or flexible new growth in shrubs. (Hardwood cuttings, such as from woody shrubs, are more difficult, and we'll cover them at a later time.)

What kinds of plants work well for softwood cuttings? Below are 3 of the easiest.

Salvias

Geraniums and Pelargoniums

Plectranthus

But there are very many others, such as roses, hydrangeas, coleus, plumbago, etc.

Basic propagation tool kit

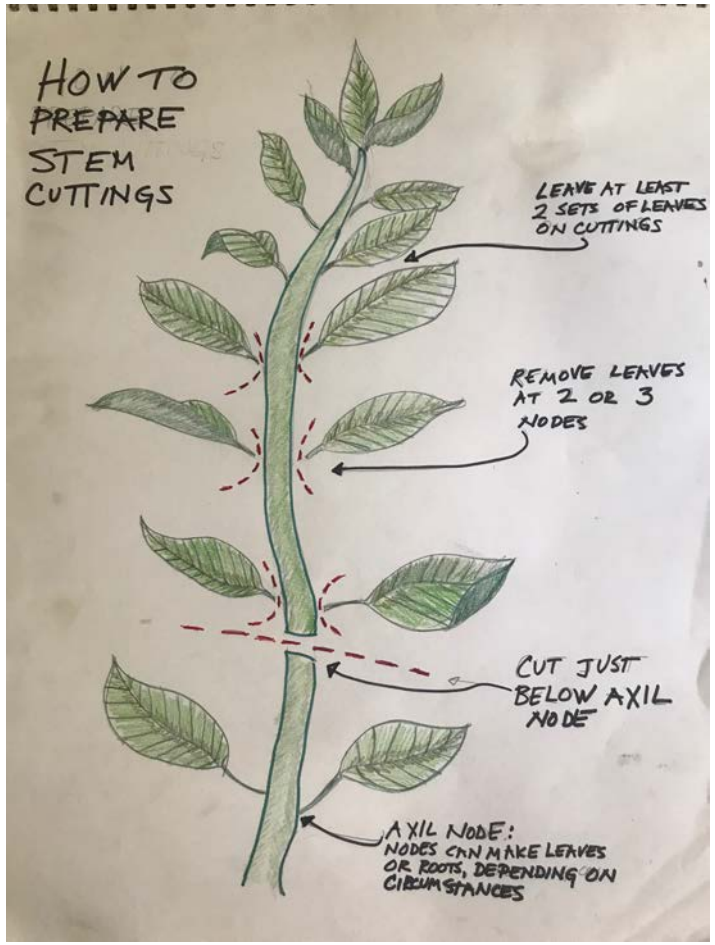
(Cleanliness is important: use new soil, clean clippers and pots!)

Sterile soil-less mix, for seedlings or cuttings; Rooting hormone, such as Rootone, available at garden stores

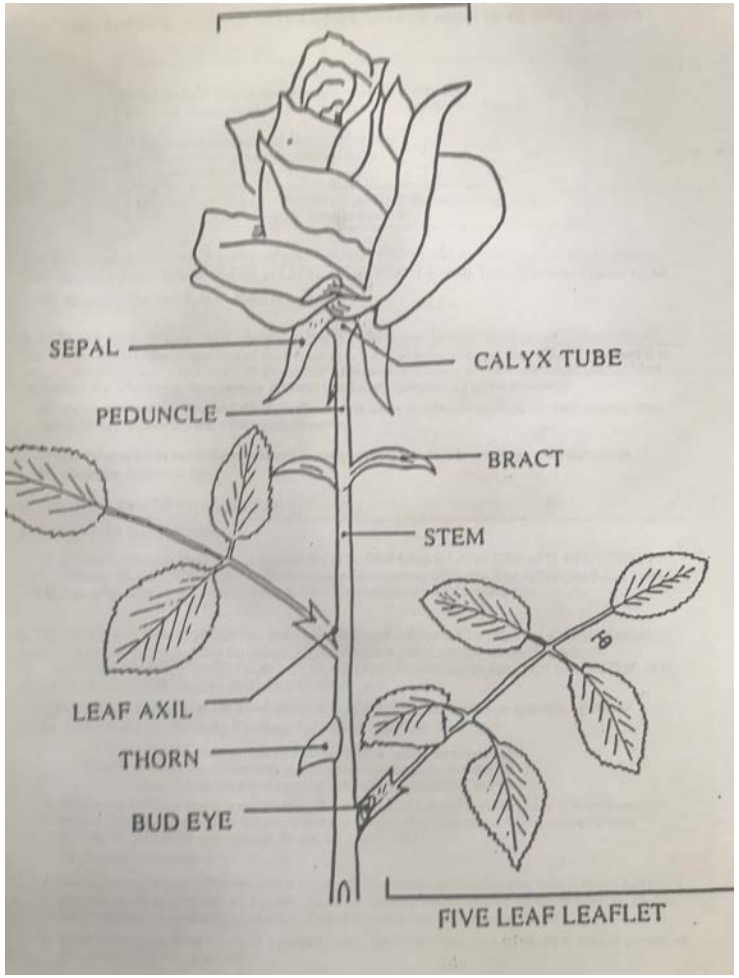
Sharp clippers, sterilized with diluted bleach, spray bottle for water, chopstick for making planting holes

Small unused sterile pots, large plastic bags, such as 2-gallon freezer bags to make mini-greenhouse. You can put more than one small cutting in a larger pot

First, a botany lesson, so you'll understand how cuttings make roots, and why it's important to cut them correctly



All plants have **Axil Nodes**, the place where the leaf attaches to the stem. These nodes produce growth—above ground, they produce leaves, but below ground, they will produce roots. When making a cutting, it's important to cut the stem just below an axil node (see drawing at left). Then remove lower leaves, leaving only 2 or 3 sets of leaves. There should be 1 or 2 nodes, with no leaves, that will be planted below soil level. Otherwise, roots will not form.

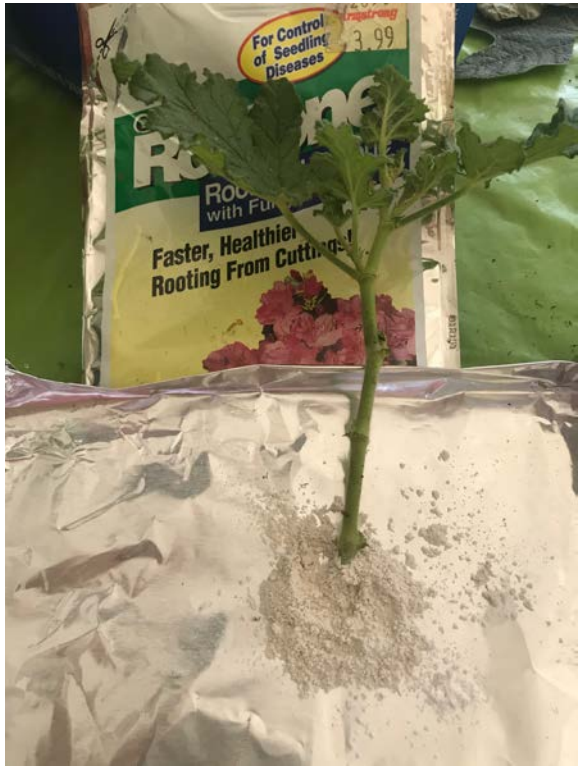


Let's get started

Cutting from oakleaf geranium (Pelargonium quercifolia). In general, cuttings should be 6 to 8 inches long, with several sets of leaves, so there will be enough axil nodes left when cutting is trimmed.

Prepared cutting. Bottom cut is just under a leaf node. Lower leaves are stripped off, leaving 2 or 3 sets on the stem. Note that there are 3 nodes left on lower stem. Two nodes would work fine too.

Dip bottom of stem in rooting hormone and shake off excess.



Planting

Fill small, clean pot with sterile planting mix. Moisten it and firm it lightly. Use chopstick to make small hole, and insert prepared cutting into soil. Press soil firmly around cutting. Lightly water. Place in large plastic bag, leaving top open, and mist with water.

Cuttings with large leaves need special treatment

Oakleaf Hydrangea (Hydrangea quercifolia). Be sure to trim off any flowers when making cuttings, because they will take energy away from roots

Bottom trimmed close to node. Lower leaves removed. Note two remaining exposed axil nodes

Cut large leaves in half (see below). This is because the cutting will struggle to support leaves that are too big, and thus divert energy await from root formation.

Make a mini-greenhouse

After dipping stem in root hormone, planting in soil mix, lightly watering and trimming large leaves in half— Place cutting in a large plastic bag, such as a 2-gallon freezer bag. (These are sometimes hard to find, but Smart and Final often carries them.) You can also construct a mini-greenhouse using a dry cleaning bag or any plastic sheet, with coat hangers or chopsticks as supports. You can put several cuttings in one bag, but don't crowd them.

Mist lightly with the spray bottle and place in light shade. Do not seal the bag. Mist the cuttings every two or three days, but don't let them get too wet. Monitor for any signs of overwater or rotting leaves. Air circulation is important. Open the plastic bag wider after a few days, and remove the cover after about 10 days, but keep pots in sheltered, shady spot.

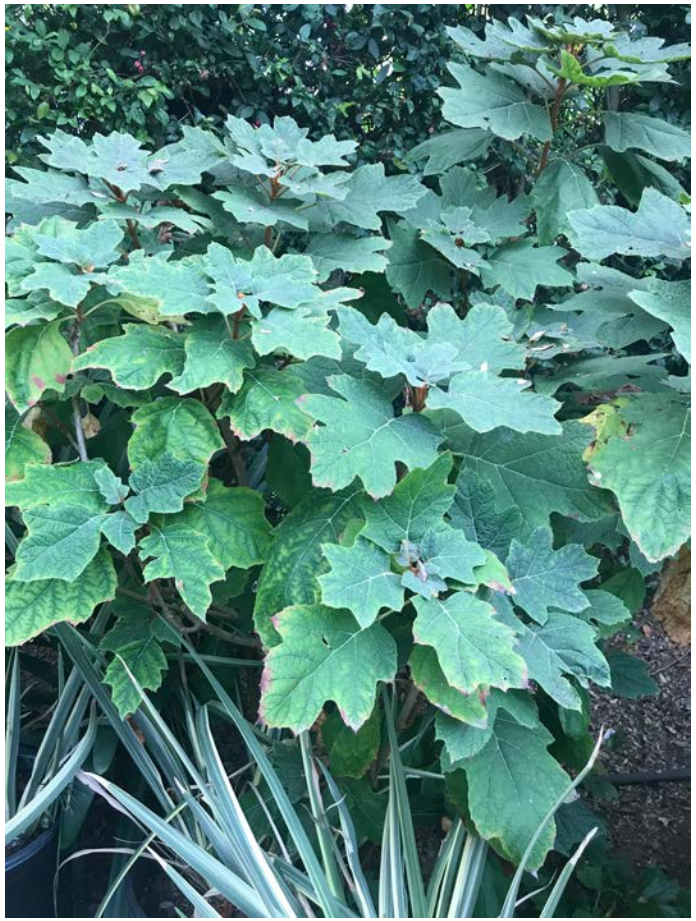
What happens next?

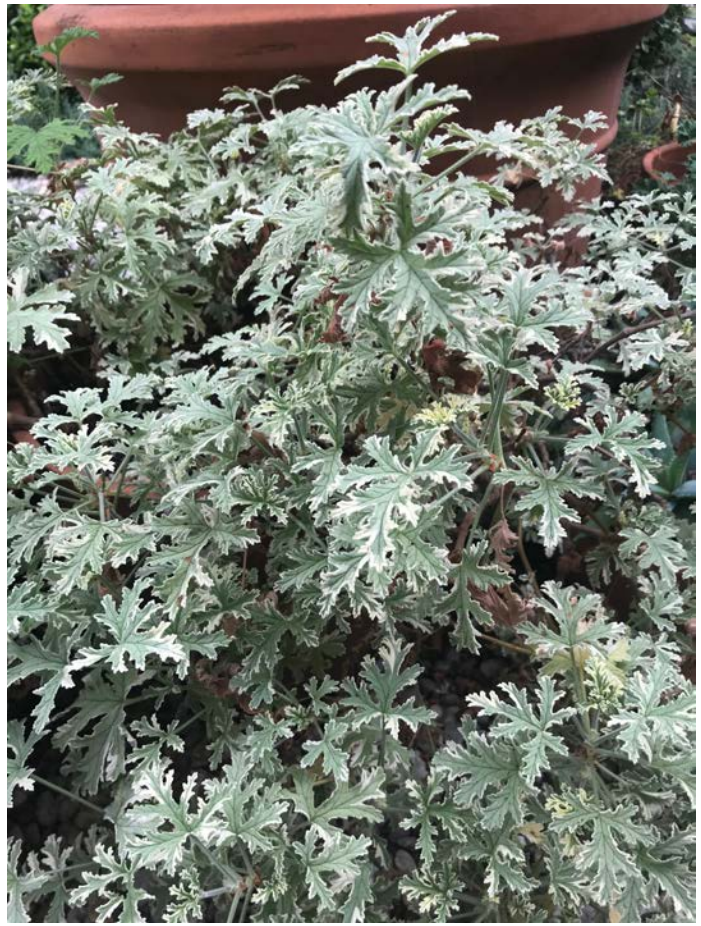
After about 2 weeks, you can begin testing to see if your cuttings have begun rooting. Tug the stem very gently. If you feel any resistance, that means your cutting has sent out roots. Try again in a week if you don't feel any resistance.
You can transplant them into larger pots (but not too large), using regular, fresh potting soil, after they have grown roots about an inch long.

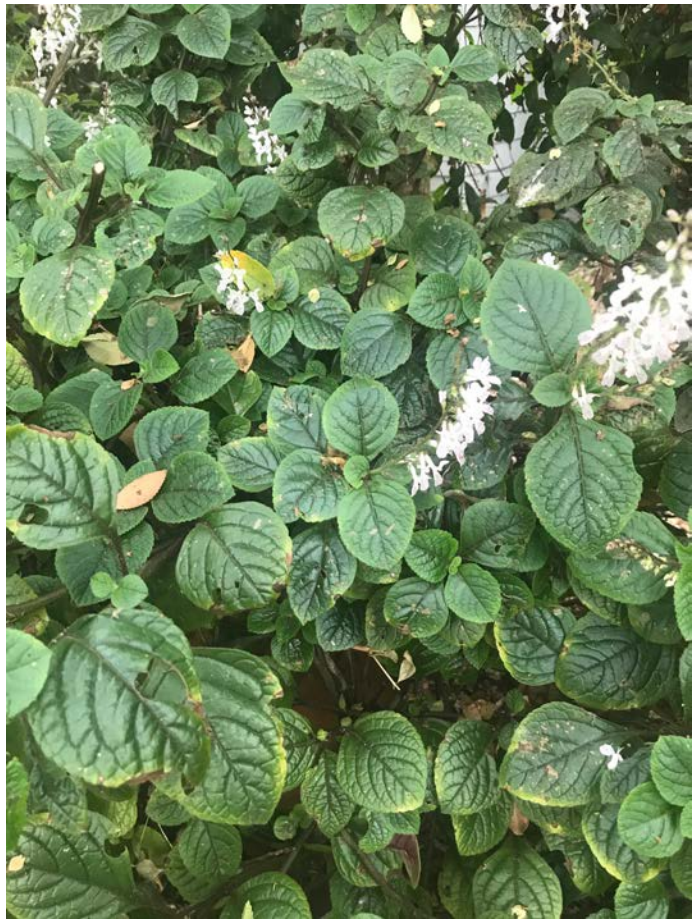
Here's an example of a geranium cutting that's been potted up. This cutting is about 3 months old.

Here's what you can accomplish!

Below are mature plants in my garden that have been grown from cuttings. **At left** is Oakleaf hydrangea (Hydrangea quercifolia), about 5 years old. **Center**, variegated mint-scented rose geranium (Pelargonium graveolens), about 3 years old. **Right,** Plectranthus ciliatus 'Zulu', about 2 years old.







For More Information

If you'd like to learn more about how to magically create free plants, there are plenty of resources. A good place to start is the GCA website. The informative booklet at right is available free to download, or for a small fee by mail. You can also google the subject for even more info.

This book (and this presentation) covers only "Vegetative Propagation," which basically means from cuttings. Remember, you can also create plants from seeds (completely free if you save your own seeds!) and by dividing clumps of certain kinds of plants, such as irises, agapanthus, clivia, and others. The Horticulture Committee will cover these subjects later.

Meanwhile, go forth and propagate!