Propagating Roses from Cuttings Consulting update 9/2020 - Stu Dalton ARS Consulting Rosarian, Peninsula Rose Society (PRS)

This is a minor update to a PRS Consulting Rosarian note from January 2020. In it I will give added feedback on an extensive effort by our Society to propagate cuttings started in Early Fall 2019 and provide some results from a year-long effort. The cuttings were destined to be donated for sale in May and September 2020 at a local and regional rose show, but the Pandemic lockdown intervened, and many were given away with the hope of donations and of encouraging membership. As it turns out, this did happen, and it has been good for our Society, providing donations and encouraging new membership.

Since the original write-up was early in the growing process, I did not have much feedback from the experiments with different techniques. The good news is several worked. From simply putting cuttings in starter medium to adding rooting powder or Gel on through using honey, the average seemed to be close to 80% success so long as the medium was kept wet. I've probably started 150 cuttings in the past year and all the techniques seemed to work though I did not try many using the potato method. The gel method was my favorite since it kept the end sealed.

One other thing to emphasize more in this note is that many roses come with a tag that *asexual* reproduction of patented plants is illegal and cutting propagation (or bud grafting) are examples of asexual reproduction. Plants from 2001 and earlier should be clear to propagate.

There are several ways people can propagate roses, and one of the simplest is by cuttings. In addition, many roses are propagated by budding or grafting onto a sturdy rootstock. Many of you have seen suckers coming from below the bud union/graft point, and one advantage of cuttings is they cannot sucker. Anything that comes up should be genetically the same rose. There are plusses and minuses

Plus

- It is easy to try
- Own root roses can't sucker
- It can be inexpensive
- You can try several in case one fails
- You need no special equipment
- Try new methods (misting, bottom watered, "mason" jar, Plastic bottle cut off at the bottom and unscrewed, bag covered bag, potato)

Minus

- You should only propagate out-of-patent roses to stay legal
- Not all roses are vigorous on their own roots (more later)
- You must keep them moist
- You must not "cook" them (more later)
- It does take a while to grow them out (more later)
- Budding uses less of the desired rose material than cuttings

The guidelines you can find online are numerous. These from UC Master gardeners are pretty straightforward https://ucanr.edu/sites/UC Master Gardeners/files/23469.pdf

Basics

- Timing cool season (fall/winter/ early spring) is best but you can try it year-round
- Plants to use- Take cutting from vigorous growth virus-free healthy plants
- What to cut pencil size for large roses, on canes which have bloomed. (proportionate size for minis)
- Where to cut- best is to get as near to a swelling where the branch joins a main cane (include as much of the swelling as you can). with clean, sharp tools
- Length 6-8 inches is typical
- **Media to start** fine pearlite, coir (coconut husk fiber), sterile potting soil, or... stick it in a shady moist spot in the ground if you wish
- When to transplant / "pot up" when it leafs out and seems to grow vigorously (2-3 Months)
- Planting/ How to place in the potting mix put in a dowel, finger or pencil to make a hole, dip in water and rooting hormone, put in hole about half the length of the cutting and gently tamp in
- Several cuttings in a container to start then pot up to larger sizes and separate
- **Keep it moist** if it ever dries without strong roots, the cutting dies

Optional

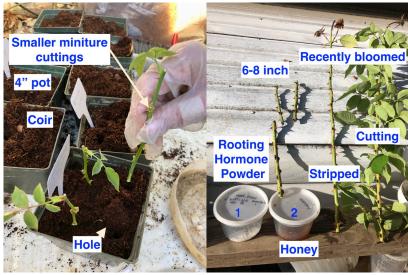
- Rooting hormone— gel or powder (e.g., Rootone Clonex, Hormex Rooting powder) may include fungicide to prevent "damping off" I've used Hormex #8 lately. Natural Plant homones that initiate root growth are called Auxins. The chemical name for the auxin naturally produced by a plant is indole-3-acetic acid ("IAA") which is synthesized by the plant from the amino acid L-tryptophan. The ingredient in Clonex is related indole-3-butyric acid.
- Cut or scrape stripes on the bottom ½-1" on the sides to expose cambium (growing layer)- I always do this to provide more sites for root growth from the cambium
- Covering with an inverted mason jar, clear large plastic bottle cut to be a small greenhouse, cloche, or inverted plastic bag with sticks to keep it up and not knock over the plant. This keeps humidity in and conditions more constant. Don't "cook" it in warm weather so you may want to keep cuttings in shade if covered.
- Misting system (like professional propagators use) misting several times a day this likely means a separate a circuit. I did this outside as well as in a greenhouse for some plants.
- Bottom watered with a very shallow water level filled a couple times a day with drip emitter worked really well. Holes in the side of shallow pans work well

Some examples of ways to try propagating cuttings



<u>Simple – strength in numbers</u>

Cut 6-8 inch lengths, put a pencil or dowel in the ground to make holes, tamp down and keep moist. Cuttings, recently bloomed, stripped of leaves, dipped in rooting powder, gel or honey. Examples of bottom watered trays 4 cuttings in a four inch pot in coir. Many people use fine perlite or peat moss or sterile seed starter mix.

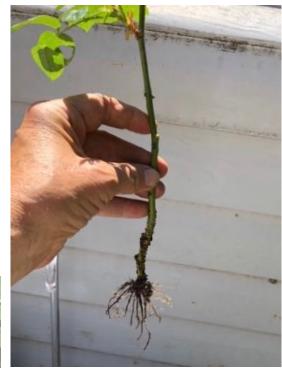


Don't dip the cutting in the bottle, put just a bit out to dip cuttings. That way you don't contaminate the hormone bottle.





Once they form roots shift to 1 in a 4 inch, then go to gallon which takes plants to a year After three months ...roots and shoots!





See roots in a #1 pot (almost a gallon) before planting in the garden or a #5 or #15 pot



Other Ideas

The Potato method in its simple version

Use a pencil or dowel to make a hole. Place the prepared cutting into the potato, but do not push it clear through. Plant the potato and cutting out in a garden area with at least 3 inches of good soil covering it, tamp lightly and water it in. Place a jar or a wall-o-water around the

planted cutting.



You may want to cut the cambium layer like in the earlier write-up and I don't think it would be a bad idea to add rooting hormone.

Honey is another low-cost low-tech aid to rooting cuttings. Honey is antibacterial and antifungal and of course has sugars that may help nourish cuttings. Here is an example writeup from

www.gardeningknowhow.com. When you're ready to begin using honey to root cuttings, you will need to first prepare your cuttings and potting medium. Your cuttings should be anywhere from 6-12 inches (15-30 cm.) in length and cut on about a 45-degree angle. Now simply dip each cutting into the honey mixture and then stick them into your selected potting medium. Honey for cuttings has been found effective

using a number of potting mediums, including soil, water and even rockwool. For soil-based mediums, it's easiest to poke a hole for each cutting with a pencil (or your finger) for insertion. Also, make sure to keep your soil moist. (If desired, you may cover with ventilated plastic) The same concept would also apply to your soilless mediums. When rooting in water, put your cutting directly into the water immediately following its placement in the honey. Finally, rockwool planting mediums should be well saturated and deep enough to support your cuttings. Once all of your cuttings have been dipped and placed into their potting medium, simply wait for your cuttings to begin rooting, which should be within a week or so

Read more at Gardening Know How: Honey As A Root Hormone: How To Root Cuttings With Honey https://www.gardeningknowhow.com/garden-how-to/propagation/cuttings/honey-root-hormone.htm

I hope people give some of these techniques a try. Several people in PRS started cuttings this year and may be happy to say what worked for them.

Below are some of the cutting starts that have not been given away. Most are 8-10 months old as of September 2020. All in #1 pots. Some are on their second bloom. For scale, altissimo (red single) is about 3 feet tall.



For questions on this article contact the author Stu Dalton – email studalton@gmail.com