

Rooting for Roots – Start Stem Cuttings Now for Next Spring

by Ray Novitske, Fairfax Master Gardener

At this time of year, I am outside clipping cuttings of some annuals to bring them indoors. These are mostly done with some container plants. The cuttings are used to start new plants that will live on the window sill throughout winter, and will be planted outside again in the spring. Welcome to the world of propagation from cuttings.

There are a few reasons why this is done. It is a good way to have a new plant that is exactly like its parent. I have a few annuals that I may want to grow again. I may not find the same plants for sale again the next year in the local garden centers. Propagation from cuttings also saves money since there is no need to purchase these new plants in spring. Cuttings propagation is easier and faster than growing new plants from seed.

There are a few different methods to start new plants from existing plants. These include stem and leaf cuttings, layering and root cuttings. A limited number of plants are capable of producing plants from leaf cuttings (mostly African violets, snake plant, and succulents). Many plants also reproduce on their own through development of stolons and runners, and bulb and corm offshoots from the parent. These also produce new plants identical to the parent. However, we will focus on cuttings that you begin yourself.

Not all plants can be copied using cuttings, and some are more difficult than others. The process is very simple. A piece or cutting of the plant that we want to copy, roots are encouraged to grow by placing it in a growing medium, and a new plant results from the cutting after growing roots. I have used this method for many years on coleus, basil, Persian shield, sweet potato vines, and Christmas cactus. All but the cactus are annuals planted outdoors in the spring and summer.



Roots growing from basil cutting

photo: by author



Cutting below leaf node

photo: Purdue University

There are two types of stem cuttings. Tip cuttings involve taking the growing tip of a branch or stalk. Medial or stem cuttings are taken from anywhere else along the stem. Where the cut is taken matters. Each of these two types needs to include a node from which the roots can develop.

For tip cuttings, select new fresh growth usually found at the tips of branches. Take these cuttings in spring, summer or fall before the frost. The cutting needs to be taken when the plant is actively growing not dormant. And the cutting should include part of the stem and a few leaves. For a tip cutting, the cut is made just below the node, which is where the leaf attaches to the main stem.

For medial cuttings, the cut is made along the stem just above a node on the lower end of the stem, and the cut at the upper end should leave some leaves. Sometimes, nodes in the stem can resemble something like a small bump or protrusion in the stem. In both types of cuttings, any flowers or flower buds are removed. This encourages the cutting to use its energy in the production of roots rather than flowers for reproduction.

When a cutting is made, the stem and leaves are no longer able to take up water from roots. So, water must be supplied to keep the cutting from drying out and dying. The cutting is placed in water or in a moist rooting medium such as perlite or vermiculite. These media hold water for the cutting to take up and provide a base in which the roots can develop. When a cutting is made, the number of leaves, especially large ones, should be reduced by stripping them off. This helps reduce the total leaf surface area, thereby cutting down on the amount of water loss.

Plain water will work for some plants, but it must be monitored and changed if it is becoming rancid or unclean. Regardless, a rooting medium will always work better than plain water. The structure and type of roots the cutting develops in water are not the same as those that develop in a medium. The proper roots will be needed to grow and anchor it when eventually planted in soil. I start basil and coleus in water, and when the first roots appear, immediately transfer to a vermiculite to complete its root development.



photo: University of Georgia

rooting hormone powder on cutting

Once roots develop, the cuttings can be planted in a potting mixture. They are placed in or near a bright window to begin producing new leaves and energy through photosynthesis. I usually plant my cuttings in a used yogurt cup, but it is not unusual to repot them in mid-winter once they outgrow the cup. I find that the cuttings grow slowly through winter, and in February begin a growth spurt. This is probably due to the increased sunlight they receive on the window sill. Of course, they need to be “hardened off” before making their way to be outdoors full-time in the spring once again.

Here are some tips for cuttings if you want try or to improve your propagation game:

- Be sure to use clean tools and sterile potting soil to prevent disease from taking hold.
- Keep the cutting medium uniformly moist. Drying out, even in a few pockets, means the developing roots can die.
- Do not place on a cold windowsill. Cuttings need warmth as they develop roots, so be sure their environment is at least room temperature. My cuttings do go to the eastern window once they develop roots and are planted in soil.
- Just before placing in rooting media, wet the root end and dip into a powdered rooting hormone. Rooting hormones help stimulate and encourage root development and improve your chances of success.

Before the frost this fall, try this technique out. You can get a list of annuals that work best for cuttings from the resources below.

References

- [Ornamental Production](#), Texas A & M Extension
- [Propagation by Cuttings, Layering and Division](#), Diane Relf, Elizabeth Bell and Edward Olsen, Virginia Cooperative Extension
- [How To Propagate Houseplants by Cuttings](#), Iowa State University Extension and Outreach
- [Propagating Plants from Cuttings](#), Elaine Homstad, Fairfax Gardening