

Plant Propagation

By Patty Neas, Master Gardener

Nature is amazing! It moves in a cycle to recreate itself in ways that bring new life. Nature propagates itself. We can propagate too. Remember sticking toothpicks in a sweet potato to hold it barely into a glass of water then amazingly seeing it sprout stems and leaves, becoming a trailing vine? It can be planted in your garden for more sweet potatoes.

Growing new plants from existing plants is called propagation. Let's learn how to use the plants you already have in your home or landscape to grow more for yourself and your gardening friends. Be aware that some plants are patented for a period of twenty years and you may not propagate even for your own use.

Propagation or multiplying plants takes place two ways: sexually or asexually. Sexual propagation produces seeds through the flowering parts of a plant. The seeds produced naturally by growing together in your garden or field are called open-pollinated. They can produce similar plants but aren't as uniform as hybrid plants that are pollinated in a controlled situation.

In asexual propagation or vegetative propagation, we use stems, leaves, or roots to make a genetic copy of the parent plant. Some asexual methods are taking cuttings, division, layering, budding and grafting. The sweet potato we talked about is asexually propagated from the thickened underground tuberous root.

<https://extension.umaine.edu/gardening/manual/propagation/plant-propagation/>

Timing is important in propagation. Plants can be propagated at different times of the year and stages of growth. Cuttings can be taken from houseplants, garden annuals, perennials, shrubs and trees.

The 4 types of cuttings are:

1. **Herbaceous**-cuttings taken from tender plants that die down each year.
2. **Softwood**-cuttings from new growth this current season in spring and early summer
3. **Semi-hardwood**- cuttings taken in late summer from partially matured growth
4. **Hardwood**-cuttings from dormant plants taken in late fall through early spring

Herbaceous houseplant cuttings can be taken at any time of the year. Those annuals we suggested you bring inside in the fall are probably leggy by now. Take cuttings from them and in 4-6 weeks they will be rooted and ready to plant outside this year.

<https://extension.uga.edu/publications/detail.html?number=B1553&title=starting-plants-from-cuttings-for-the-home-gardener>

Trees such as redbud, and crabapple, and shrubs like lilac, and forsythia can be taken as softwood cuttings.

<https://hortnews.extension.iastate.edu/propagation-deciduous-trees-and-shrubs-softwood-cuttings>

Some hardwood cuttings of still dormant plants like hydrangea and figs can still be taken now. Other common plants are listed below:

<https://hgic.clemson.edu/factsheet/hardwood-cuttings-for-shrub-tree-propagation/>

The growth stage of the plant and the time of year you take the cutting affects the success of growing new plants. Generally, taking cuttings requires keeping your cuttings healthy by using clean tools and containers. The best time to take cuttings is early morning. Keep the cuttings cool and moist until they are put into the rooting medium. Generally, a cutting should be 2-6 inches long cut below a node. There are some differences in taking different types of cuttings. If it is an herbaceous cutting, remove most of the leaves, buds or flowers. Wound or scrape the bottom stem of a semi and hardwood cuttings. Dip the cutting in rooting hormone and insert into a prepared hole in the damp medium of the propagating container. Cover and keep the medium moist. Check for roots every two to three weeks. Sometimes only a small percentage take root. Here are more specifics:

<https://www.purdue.edu/hla/sites/yardandgarden/extpub/new-plants-from-cuttings-text-only/>

Making an outdoor propagation box is a great way to grow cuttings. Hardwood cuttings can be put into a garden bed or box of sand as explained below:

<https://extension.msstate.edu/publications/propagating-plants-for-the-home-landscape>

Another way to propagate is by division. This is a good time of year to divide your perennials. Some examples are: hostas, aster, bee balm, daylilies, coneflowers, ornamental grasses, Russian sage, and Shasta daisies. See the spreadsheet linked in this article for other plants to divide this spring. <https://extension.umn.edu/planting-and-growing-guides/dividing-perennials>

Grafting is another propagation method you can pursue now. It is a rewarding experience that produces new fruit trees. The grafting class at Ron Ramsey Ag Center in Blountville is taught by Extension Agent Chris Ramsey on Thursday March 21. Please call 423-574-1919 for further information.

It can be challenging, economical, and fun to learn to propagate. It is so rewarding when you can grow new plants for yourself and others, multiplying the plants you already have. Try several types of propagation and be amazed at nature and the results you achieve! Happy gardening!

How do I ask a question?

If you have a question for the Master Gardeners, submit them to us on our website at www.netmga.net. Click the link at the top of the page, "ASK A MASTER GARDENER" to send in your question. Questions that are not answered in this column will receive a response from a Master Gardener to the contact information you provide.

The Master Gardener Program is offered by the University of Tennessee Extension. The purpose of the Master Gardener program is to train people as horticultural-educated volunteers. These volunteers work in partnership with the local Extension office in their counties to expand educational outreach, providing home gardeners with researched-based information.