University of New Hampshire
Cooperative Extension

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The Art of Making More

June is the ideal month to take cuttings from deciduous trees and shrubs. Propagating from cuttings is a relatively simple way to make new plants at virtually no cost. It's also a great way to replicate sentimental favorites. Plant pieces are clipped from the parent plant and rooted to form new plants; these are called rooted cuttings. If all goes well, you should be able to produce tiny, new plants in 6 to 8 weeks.

Softwood cuttings are taken from new growth of the current season. They are called softwood because the new growth is still flexible and non-woody. Softwood cuttings are generally the easiest to root and don't require special handling. They are used for propagating deciduous shrubs such as forsythia and lilac. Other shrubs that can be propagated this way include butterfly bush, cotoneaster, euonymous, honeysuckle, hydrangea, mock orange, privet, rose, spirea, viburnum and weigela.

The key to softwood cutting is taking the cuttings while stems are succulent and not yet woody. The snap test is a quick way to determine if the new growth is mature enough for successful rooting. Bend a selected stem between your thumb and forefinger. If it snaps, the tissue is in prime condition for rooting. However, the break must be clean. If the stem merely bends, it's not quite ready.

Select stem cuttings from vigorous, healthy branches in the upper portion of the plant. Avoid extremely vigorous shoots as well as weak, spindly growth. Take cuttings in early morning while it's still cool. Cuttings should be 4 to 6 inches long with 4 to 6 sets of leaves. Use a sharp, clean knife and make a slanting cut slightly below a node (the point where leaves are attached to the stem). Then remove the leaves from the lower half of the cutting, dip the base in a rooting hormone for faster and better rooting and insert the cutting up to the remaining leaves in the rooting medium. Rooting compounds are available in powder form at most garden centers. Then water thoroughly to settle the medium around the base of the cutting.

A number of environmental factors are important for the successful rooting of cuttings. The rooting media must support the cutting and also supply moisture and oxygen to the developing roots and shoots. High humidity must be maintained around the leaves to prevent wilting and death of the cutting. Stem cuttings must also be kept in the light so that carbohydrates can be manufactured to help produce roots. And lastly, it's important to select healthy cutting material and to work in sterile, clean conditions so decay and rotting don't occur before your cuttings root.

The medium used for rooting cuttings must be clean and sterile. Diseases are a frequent cause of poor rooting and can come from containers, tools, potting benches or rooting media that have not been sterilized. A good all-purpose rooting medium is a mixture of equal parts of perlite and peat moss. Perlite is a sterile artificial ingredient that provides good aeration and peat moss is a natural organic. Both are available at garden centers. Do not use soil as a rooting medium; it's too heavy and may contain disease organisms.

During rooting the propagation medium should never dry out. Nor should it remain excessively wet; this will result in poor aeration and the death of new roots. To maintain high humidity, enclose entire pots in clear plastic bags. Monitor the plastic bags for condensation and water when the condensate disappears (about once a week). Don't place plastic-enclosed pots in direct sunlight because excessive heat will build up, baking your plants. A northern exposure with good, indirect light is best. If you plan to root large numbers of cuttings use a cold frame or greenhouse.

Most shrubs will root within 3 to 6 weeks. Tug gently on stems to see if they have rooted. If stems resist tugging, chances are they have developed roots. Carefully remove a few from the medium to check. When cuttings have produced some roots at least an inch long, they are ready to be transplanted into a growing medium. If rooted plants can't be potted up soon after rooting, apply a water soluble fertilizer at half the recommended rate. Water with this fertilizer solution every other week until cuttings are potted.

Put your new cuttings into a houseplant or nursery soil mix and fertilize monthly with a water soluble fertilizer. The move from high humidity and a moist rooting medium to low humidity and a drier soil is critical. Keep a close eye on your new plants the first few weeks as they make this transition.

Do not plan to transplant recently rooted cuttings to a permanent location in the landscape this season. Instead, in late summer transplant them into gallon-sized pots or a nursery bed. Grow your transplants to a larger size for a year to increase their chances of survival. Since they will be sensitive to cold, bury pots to the lip for the winter months and mulch heavily for added protections. At the end of next year's growing season, your fabulous new shrubs should be ready to move to their permanent location.

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