## MAKE YOUR OWN PLANTS

by Sue McDavid UCCE / El Dorado County Master Gardener

Like just about everything, the price of plants is slowly inching up each year, so why not "make" your own? Propagation of favorite plants using cuttings is easy, costs nothing except time and gives a gardener great satisfaction – it is so exciting to see a mature plant in the landscape that began as a small, bare stem. So, just how is this done? Understanding a couple of basic principles of plant propagation will help get a novice started.

There are only two plant propagation methods – seed (sexual) or vegetative (asexual). The production of a seed depends on pollen fertilizing an egg cell, so every seed carries the genetic characteristics of both parents. Therefore, seedlings can vary greatly in hardiness, size and flower color. Gardeners talk about plants "not coming true" and this is why. On the other hand, vegetative, or asexual propagation, will produce plants that are identical in every way to the parents. Entire books have been written about plant propagation, but this article will deal with vegetative, or asexual, propagation only.

Cuttings can be taken from almost all parts of a plant except flowers. Cutting types are classified as tip, stem, leaf and root cuttings. The timing for each is a little different depending on the time of year. For example, tip cuttings are taken in early summer when growth is fully developed, but not yet showing woodiness or hardening; stem cuttings are usually taken in late summer when some brown tissue is starting to appear; leaf cuttings can be taken year-round from houseplants or outside evergreen plants; and root cuttings are normally taken in winter when a plant is dormant and less likely to be disturbed. Cuttings can be further classified as softwood or hardwood, but this article will deal with softwood cuttings only.

Softwood cuttings can be done right now, but before starting, gather the necessary materials together. Whether using individual pots or a tray, fill each with the growing medium first. Coarse sand works well as does a mixture of perlite, vermiculite and compost. Regardless of the medium you use, make sure it drains well, because if it doesn't, the cuttings will likely rot from too much moisture. Water the medium well and let it drain, but do not compress it. Cuttings should be taken early in the morning so they won't dry out and should be placed in the rooting medium as soon after cutting as possible. Insert each cutting at the cut end into a rooting hormone compound (either powder or liquid) before inserting into the growing medium; the written directions will describe how to mix the rooting hormone and give the length of time for keeping the cutting in the mixture. It helps to use a pencil or some such object to make a hole first; this way, the rooting hormone won't be rubbed off when pushing the cutting down into the medium.

When making cuttings, do them right below a leaf node, on a healthy stem, about 3 to 4 inches long. Strip any lower leaves off the stem because if any come into contact with the growing medium, they will rot and could infect the remainder of the cutting. Ideally, the stem should be buried so that at least two leaf nodes are below the surface of the growing medium. Once inserted into the growing medium, place the cuttings in a warm, moist environment out of direct sunlight. Trays with plastic lids are perfect because humidity is kept high and the extra moisture

will help reduce wilting. Remember, there are no roots yet to support the cut stem, so any leaves left at the top of the stem must be kept moist. Some gardeners insert containers into a plastic bag, but make sure none of the leaves on the cuttings make contact with the plastic. Check the cuttings on a regular basis for any fungal infections which usually show up as a furry mold on the stem; discard any infected cuttings immediately.

In a few weeks, roots will begin to form and at this point, feeding with a dilute mixture of fish emulsion should be started. You can tell if roots have formed by gently tugging on the stem; if it stays put, there are roots. Some plants take longer than others, so be patient. Forsythia, Butterfly Bush, Chrysanthemum, Ribes and Weigela are just some of the plants that root quite easily and quickly from stem cuttings.

After the new plants have put on a good root system, they can be planted out in the garden. You can then sit back and enjoy these, knowing that they were grown by your own hand for virtually no cost.

Saturday, June 23rd, Master Gardeners present "Pets, Pesticides and Poisonous Plants". This free three-hour class starts at 9:00 a.m. and is held in the Veterans Memorial Building at 130 Placerville Dr in Placerville

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