

The ABC'S of Hardwood Cuttings

A hardwood cutting is a type of stem cutting, a means of increasing plants vegetatively. Since hybrid plants and cultivars will not come true to type when raised from seed, asexual propagation is necessary. The aim in taking a hardwood cutting is to induce the cutting to produce roots before buds grow in the spring. Establish whether hardwood cuttings are suitable for the deciduous shrub or tree which you want to propagate by consulting the list at the end of this article, as well as the internet and print references given.

Why and When to Take Hardwood Cuttings

1. Hardwood cuttings are easy to prepare and require less care than softwood or semi-hardwood cuttings. Less special equipment for rooting the cuttings is needed, so the method is economical for propagating hedges, shrub borders, and large screening projects.
2. No leaves means a great reduction in water loss. That, combined with the maturity of the wood, makes the cuttings relatively non-perishable.
3. Take cuttings within a month after the leaves fall from the plant, which is generally between fall and early winter, when garden chores become much less pressing (if not nonexistent).

How to Make Hardwood Cuttings

Ideally, prune the parent plant back hard a full year before taking hardwood cuttings. The cuttings taken from the vigorous new growth resulting from that pruning, generally root better than cuttings taken from normal growth.

In the garden/field

1. Select a parent plant that is true to type, vigorous, and free of diseases and pests. Avoid water shoots, stunted stems, overvigorous stems with widely spaced buds, and stems which have borne or are bearing flowers.
2. Select well-ripened (i.e., mature) pencil-thick shoots of the current year's growth, which is often lighter in color than older wood.
3. Using sharp hand pruning shears, remove straight stems up to two feet long, cutting above a leaf joint. Slice off and discard the tip of the stem - an inch or two of unripened wood which has insufficient nutrients to survive.
4. Place the stems in a plastic bag so that they do not dry out.

In the shed or other garden workplace

5. Plan how you will cut each stem into pieces typically six to eight inches long, each cutting having at least three or as many as six growth buds.

6. Make a cut just above the proposed top growth bud of a cutting, sloping the cut so that you will be able to distinguish the top from the bottom of the cutting.
7. Leaving at least three or four growth buds below the sloping cut at the top, make a flat cut at the bottom, half an inch or so below a growth bud. The resulting cutting might be anywhere from six to twelve inches in length, depending on the distance between the growth buds.
8. Dip the base of each cutting in liquid or powdered rooting hormone formulated for hardwood cuttings; shake off any excess.

How to Store Cuttings if You Garden Where the Ground Freezes

1. Make a bundle of one type of cutting, sized so that you can comfortably grasp the bundle in one hand; make sure that all the sloped cuts are at the top, and tap the bundle lightly so that the bottom ends are all even.
2. Secure the bundle with a rubber band or twine and label it.
3. Bundle the rest of your cuttings in the same fashion.
4. Bury bundles in lightly-moistened sand, vermiculite, earth, damp sawdust or damp peat moss in a solid container and store in a cold indoor location where it won't freeze (an unheated basement, garage or cellar). Alternatively, bury bundles in a one-foot trench in the garden (in warmer areas) or in an insulated cold-frame: place bundles horizontally and cover them completely with sand, then top that off with several inches of loose mulch.
5. Keep the bundled cuttings buried through the winter. They should not be allowed to dry out while they are in storage. During the winter storage period, the lower ends of the cuttings will start to form calluses, from which roots will eventually grow.
6. One source suggests storing for 3-4 weeks at 50 to 55 degrees F and then at 32 to 40 degrees to keep the tops from growing too soon.

How to Plant Cuttings

If ground doesn't freeze more than two to three inches deep, cuttings may be planted directly outside; otherwise, plant cuttings after all danger of frost is past.

1. Establish a nursery area with protection from strong wind.
2. Dig a narrow trench as deep as the cuttings are long.
3. Set cuttings in the trench, top end up, about six inches apart.
4. Fill the trench with soil mixed with compost or perlite, leaving only the top bud of each
5. cutting exposed.
6. Firm the soil around the cuttings.

How to Care for Cuttings After Planting

1. Use shade cloth or lattice supported on stakes to protect cuttings from direct sun.
2. Keep the soil moist during the rooting period and control weeds.

3. Resistance to a gentle pull on a cutting is a good indicator that it has rooted.
4. Use an all-purpose fertilizer once a month, from the time the cuttings start growing until one month before the average date of the first fall frost.
5. Cutting the plants back nearly to the ground in the spring of the second growing season forces them to send up more stems and become bushier.
6. Plants raised from hardwood cuttings should be ready for a permanent place in the garden (or a container) at the end of the second growing season or the following spring.

Some Deciduous Shrubs and Trees From Which One Might Take Hardwood Cuttings

Clematis montana

Cornus alba and *C. stolonifera* (Shrubby dogwoods)

Deutzia

Euonymus

Forsythia

Hibiscus

Hypericum

Kerria japonica

Laburnum (Golden chain tree)

Ligustrum (Privet)

Lonicera (Honeysuckle)

Metasequoia glyptostroboides

Philadelphus (Mock-orange)

Physocarpus

Platanus (Plane, Sycamore)

Polygonum

Populus (Aspen, Cottonwood, Poplar)

Prunus

Rosa rugosa

Salix (Willow)

Sambucus (Elderberry)

Spiraea (Spirea)

Stephanandra incisa

Symphoricarpos (Coralberry)

Syringa persica (Persian lilac)

Viburnum

Vitis (Grape)

Weigela

Consult North Carolina State University's Horticulture Information Leaflet [Plant Propagation by Stem Cuttings: Instructions for the Home Gardener](#) for fairly complete lists of evergreen plants and deciduous trees/shrubs, with the optimum stage of wood maturity for rooting stem cuttings – softwood, semi-hardwood, or hardwood. Both Peter Thompson's and Alan Toogood's books give detailed tables that tell whether a particular method of propagation is appropriate for a given plant, and if so, when to use that method and if a greenhouse or the equivalent is advised.

References

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