

# Vineyard Propagation from Cuttings

Cooperative Extension Service  
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## Guide H-322

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Growers often would like to increase the number of vines in their vineyards by using their own cuttings. In this way, they can select healthy vines for making cuttings, also saving them money.

In areas like the eastern states where there is an abundance of rainfall and high humidity, many growers start new vineyards by planting cuttings in place. In New Mexico where we do not enjoy that luxury, it is best to grow the cuttings for one year in a nursery and then put them in the permanent location the following year.

### SELECTING THE VINES

The best time for selecting the vines to be used for cuttings is at harvest or just prior to it. Select vines that are well cropped but do not appear to be over-cropped, as overcropping will prevent the wood from being fully matured; the cuttings may take poorly as a result. Mark the vines from which you will be making cuttings.

### TIME FOR CUTTINGS

While cuttings can be made any time after vines are completely dormant, the best time is when the vineyard is being pruned. Plant cuttings in a nursery so they will form roots for one year before planting them in a permanent site. The cuttings are known as *rootings* after they develop roots.

### MAKING THE CUTTINGS

The cutting should be five or six buds long. Do not use cane tips and do not make more than two cuttings from a cane. Wood at the tip of the cane is often less mature and more prone to winter injury, resulting in poor or no root development. On the other hand, old wood has more stored nutrients and will produce more vigorous rootings.

Slant cut at the top; make the one on the bottom straight across (fig. 1), because after cuttings are stored, it is sometimes difficult to tell the top of a cutting from the bottom. If you are making only a few cuttings, it is best to make only mallet cuttings (fig. 2).

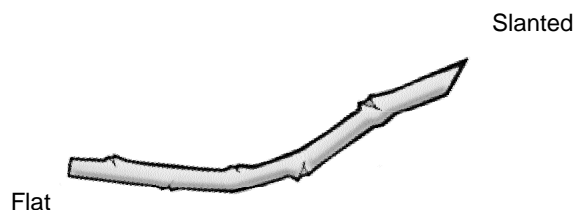


Fig. 1. Slant cut.

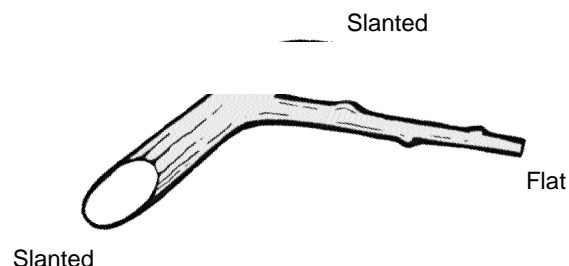


Fig. 2. Mallet cut.

The same process is used for making grafting sticks if you plan to do some top-working, but grafting cuttings should be made slightly longer.

### STORING THE CUTTINGS

Tie the cuttings in the size bundles that are convenient for your operation. If you are making cuttings from more than one variety, make sure all the bundles are well tagged. Store cuttings in a cold place at temperatures slightly above freezing.

Use moist shavings or peat moss to keep cuttings moist. First wet them well, then drain them enough to remove excess moisture. Generally, moisture is adequate when squeezing a handful of peat moss or shavings leaves your hand moist, not wet.

Lay a piece of plastic on a flat surface, spread a thin layer of shavings, place the cuttings on the shavings, then add another layer of shavings. Roll the package up, folding the sides toward the middle. When the bundle is complete, tie the package.

The packages can be stored in a refrigerator or buried on the north side of a building where water from storm drains does not collect.

If you prefer, cuttings can be buried upside down either in bundles or the wrapped packages. If there is good drainage, you can bury them on the north side of a building—the coldest side. As the soil warms closer to the surface, it aids in callusing the bottoms of cuttings, which will be located near the surface.

If there are a number of cuttings to be stored and you do not have access to a walk-in box or a large refrigerator, cutting pits in the soil work well. Use the procedure mentioned above, but take some extra precautions because of the extreme cold often encountered in New Mexico and cover the cuttings with several inches of soil. As an extra precaution against freezing, loose straw can be placed over the pit to further insulate cuttings against the cold. Remove the straw when the possibility of severe cold weather has passed.

If you have access to a walk-in box, cuttings can be stored in a deep box, packing them well in the drained shavings. Often large bundles are made using plastic and moist shavings instead of bins or boxes.

For grafting, it is better to pack the bundles in shavings rather than soil, because the soil particles that stick to the cuttings can quickly dull a knife when the buds are being removed.

## REMOVING THE CUTTINGS FROM STORAGE

In the spring after the soil shows signs of warming, cuttings can be placed in the nursery. If they are to be used for grafting, continue storing them until you are ready to do the grafting. At no time should they be allowed to dry out.

## LOCATING THE NURSERY

The nursery should be in a location with accessible water. The soil should be well drained and not receive a lot of runoff water from buildings. If possible, work compost or well-rotted manure into the soil. Some shade is acceptable, but the site should have plenty of sunlight.

If possible the soil should be sterilized by solar heating the soil with a black plastic covering—a process called “solarization.” Cultivate the site well and water it well. When the soil is drained, cover the area with 4 mil black plastic if possible. Wet the soil before laying the plastic, as moist heat is much more effective for sterilizing the soil. Seal the cover around the edges with soil; this will help retain the heat, but more importantly the cover will remain through the New Mexico winds. The minimum time for a good solarization is two weeks, but if time allows, leave it for a month or more. The heat generated under the plastic will be sufficient to kill most of the weed seeds in the soil, as well as common pathogenic organisms.

## PLANTING IN THE NURSERY

Cuttings should be soaked in water for a short time before putting them in the nursery. It is not necessary to use any type of root promoting substance; in fact, these materials may actually reduce grape rooting.

Place the vines in rows in the nursery. The rows should be spaced far enough apart so they can be easily tilled. Place individual cuttings about 4" apart in the row, making sure the cuttings have the slanted cut up.

Use whichever irrigation method is easiest. Sprinklers, furrow, flood, or drip—all work well. The important thing is to give cuttings adequate moisture so they will produce good rootings.

## PURCHASED CUTTINGS OR ROOTINGS

When dealing with purchased cuttings or rootings, check them as soon as you receive them to make sure they have not suffered from drying out. If necessary re-wet the sawdust or peat moss if you are not yet ready to plant.

Cuttings or rootings can be stored either by placing the bundles in a cold room or by burying them on the north side of a building in a place that is well drained.