

# BEST PRACTICES



## Planting Methods: Live Stakes

### General considerations

- Live stakes are living sticks taken from plants that root easily, for example willow. Once installed they will grow roots. They are inexpensive, so planting them can minimize project costs. They are often used in projects where a large number of plants or minimal soil disturbance is desirable, such slope stabilization.
- Unless otherwise recommended, use four to six feet spacing between stakes on the flat and two foot spacing on steep slopes.
- Measure work area (in square feet) to calculate amount of wood chip mulch for three inch depth and the number of live stakes needed.
  - 1 Volume of wood chip mulch (in cubic yards) = (work area x 0.25)/27
  - 1 Use Sound Native Plants' Plant Quantity Calculator to find the number of stakes needed:  
<http://soundnativeplants.com/nursery/plant-quantity-calculator/>
- Live stakes can be harvested from existing plants at a site in the fall and winter. Willow, red-osier dogwood, cottonwood, and snowberry are all appropriate species for harvesting.
- For willow, red-osier dogwood, and cottonwood we recommend a length of three to six feet and a diameter of ½"-1.5". Snowberry works well with first year shoots up to 1/4" stems.
- Make sure that your planting site has adequate moisture for the species you are planting. Most live stakes are wetland plants that need a lot of soil moisture. Snowberry and Scouler's willow can tolerate drier sites.

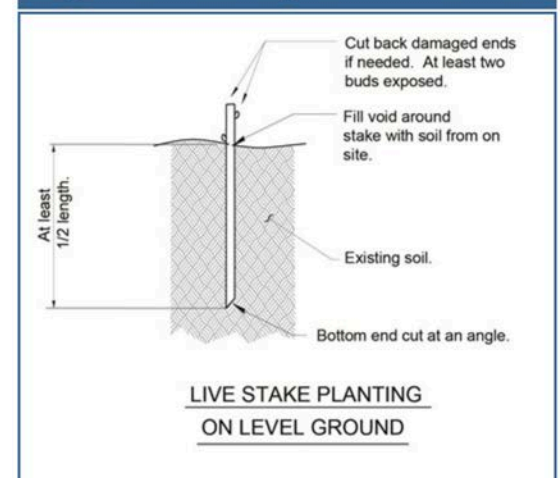
### Tools and Materials

- Live stakes
- Hand Pruners
- Wrecking Bar
- Rubber or shot-filled mallet
- Wood chip mulch

### Planting Method—Level Ground ( Figure 1)

- Before planting, use hand pruners to trim the stakes and remove any damaged ends. The top end (toward leaves) should be cut flat and the bottom end (toward roots) at an angle.
- With buds facing up, push stakes into the ground. If necessary, use a wrecking bar to create hole for planting or a mallet to drive the stake into the ground. Be careful not to damage the top of the stake.
- Fill any void around stakes with soil from on site. Tamp gently and do not over compact.

Figure 1—Planting on Level Ground



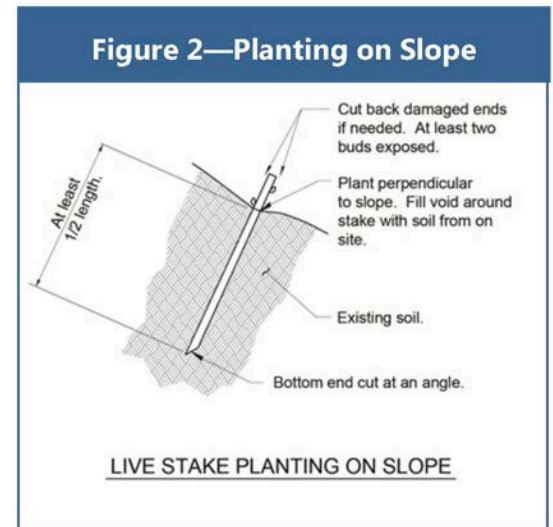
- Install stakes so that at least half their length is below ground and at least 2 buds are above.
- Apply three inches of wood chip mulch over planted area. Keep mulch 1-2" away from the live stake. Mulch piled at the base of live stakes can kill buds and contribute to pest and pathogen problems.

### Special Considerations for Working on Slopes (Figure 2)

- Work from the bottom of the slope to the top.
- Plant live stakes perpendicular to the slope.

### Maintenance/Monitoring

- Monitor live stakes for at least two years after planting. If large numbers of live stakes die, replace dead plants.
- Water weekly or as needed during the dry season (June-October) for at least two years after planting.



Appendix 3. Source: OlyWild

