PRIMARY USE: Minimize bank erosion.

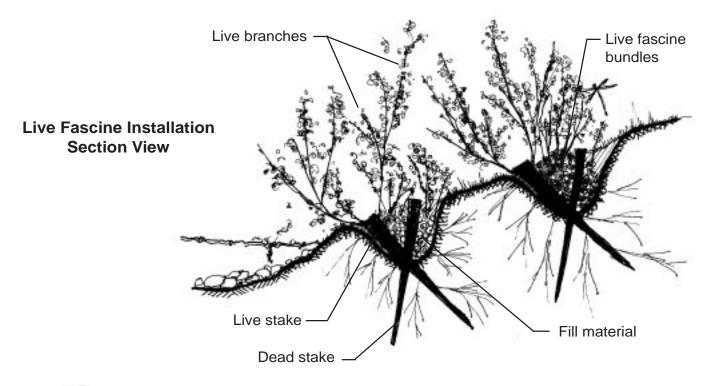
ADDITIONAL USES: Improve habitat for aquatic plants and animals, contribute to food web dynamics, and enhance aesthetics through the establishment of vegetation.

LIVE FASCINE

What is it? Live fascines are bundles of dormant, live cuttings bound together into a long, cylindrical form.



Live fascines are inexpensive to construct and install, and offer immediate protection from surficial erosion when securely anchored. They are a very effective soil stabilization technique once rooting is established. The installed fascines reduce the slope into a series of smaller slopes by acting as mini-dam structures that hold fill soil on the face of a stream bank.



Limitations

Live fascines are only appropriate on slopes which are not undergoing mass movement and above bankfull discharge levels. Because reinforcement does not penetrate as deeply into the slope as in some other techniques, they are not immediately as effective.

Materials

Straight branches cut from dormant willow, alder, or shrub dogwood trees should be 5-15 ft (1.5-4.6 m) long, 1 in (25 mm) or less in diameter. Live stakes should be 2.5 ft (0.8 m) long, and wooden stakes should be 2 ft (0.6 m) long.

Installation

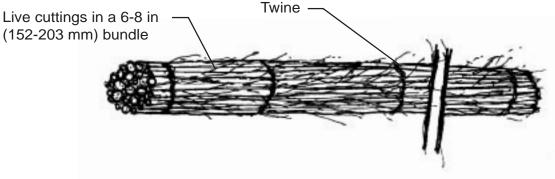
The cuttings and live stakes must be made while trees are dormant (usually September to March), immediately prior to installation. The cuttings are tied together into bundles 6-8 in (152-203 mm) diameter with untreated twine. The growing tips should be oriented in the same direction. Beginning at the base of the slope, dig a trench following the contour slightly smaller than the size of the bundle. The tops of the cuttings should be staggered evenly throughout the bundles.

Source: Stream Corridor Restoration Handbook, USDA.

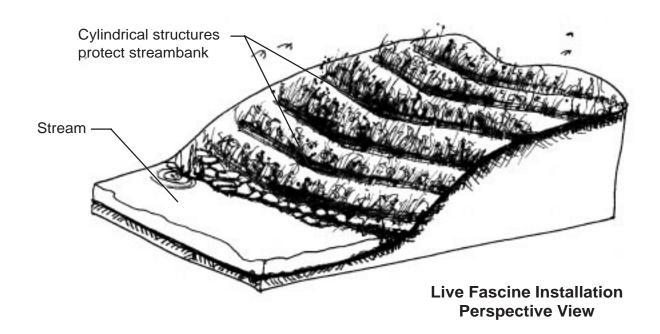
LIVE FASCINE

Additional Considerations and Drawings:

Place the live fascines in the trench. Drive the wooden stakes directly through the fascine bundles approximately 24-36 in (610-914 mm) apart. Leave tops of the stakes flush with the installed bundle. Excavate additional trenches at regularly spaced intervals up the bank. The distance between trenches is determined by steepness of the slope and characteristics of the soil. Place moist soil along the sides of the bundles. Compact the soil by walking on it and on the bundles. Live fascines should not be completely buried; a few twigs and leaves should stick through. Tamp live stakes under the live fascines between the wooden stakes for deeper rooting to increase stability.



Tied Bundles of Live Cuttings
Perspective View



Source: Stream Corridor Restoration Handbook, USDA.