

BRUSHMATTRESS

Brushmattresses are a combination of riprap, live fascine, live stakes, and brush to form a covering over the entire slope.

Advantages and Disadvantages

- A brushmattress provides immediate protection from streambank erosion and can be used along fast-flowing streams.
- Brush and fascines restore vegetation and habitats to the bank, giving the soil below the brush stability from the formation of a root mat and cover of the brush.
- Riprap can be used to stabilize the toe of the slope, and a live fascine can be placed just above the riprap. Brush is then used to cover the slope and is held in place by live and dead stakes and wire.



Figure 11. A brushmattress with riprap at the toe of the slope

Materials

- Branches six to nine feet in length and one inch in diameter.
- Live stakes (see Live Stake section).
- Live fascine (see Live Fascine section).
- Wire mesh to secure branches.
- Dead stout stakes to secure brush and live fascine.

Preparation

- The streambank should be graded to a maximum slope of two feet horizontal to one foot vertical (2H: 1V).
- Check with the DNR prior to any flood plain disposal of spoil material resulting from the streambank grading.
- Live fascines and stakes should be prepared just prior to installation in the streambank.
- Dig a trench that adequately contains the live fascines.

Installation

- After the slope has been graded, place the live fascine in a trench at the base of the slope. See Live Fascine section for detailed installation.
- Place live and dead stakes at a one-foot depth in the graded slope at a spacing of two square feet per stake.
- Place branches, with basal ends located in the trench of the fascine, in a layer one to two branches thick.
- Stretch wire mesh over the branches and tie the ends to the live and dead stakes to secure the branches.
- Riprap can also be placed at the toe and down into the streambed.