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](image)

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.