

# SEEDING OF STREAMBANK

Establishing vegetation on streambanks is frequently the simplest way to stabilize the soil and slow erosion. Where erosion is not severe, the banks can be seeded with warm or cool season grasses and legumes. Live tree cuttings can be inserted in the ground to give greater bank protection over a longer period of time.

## Advantages and Disadvantages

- Seeding is useful when rich topsoil is readily available.
- Vegetation improves the appearance of streambanks.
- Seeding is low-cost, particularly when compared to structural erosion control methods.
- Seeding should be part of all projects, including those making use of more complex structural erosion control methods.
- If used alone, seeding may not be adequate to control bank erosion, especially when erosion is severe.
- Seeding must be done during low flow conditions, and vegetation must have sufficient time to grow before high flow conditions occur. If the bank is seeded shortly before a high flow event, the roots may not be strong enough to keep the plants and soil from washing away.
- Seeding is generally not suitable for stabilizing the toe of a streambank, as few plants will survive below water level. See the Willow-Post method for using trees to stabilize bank slopes at the edge of the waterline.



**Figure 1. Streambank that has been graded and seeded using a natural fiber blanket containing seed**

## Materials

Seed mixture recommended by Iowa Department of Transportation:

Alsike clover	5 lbs/acre
Fawn fescue	30 lbs/acre
Switchgrass	10 lbs/acre
Birdsfoot trefoil	5 lbs/acre

## Preparation

- Regrade the slope no steeper than six feet horizontal to one foot vertical (6H: 1V). Always regrade by pulling dirt away from the stream to minimize the amount of soil discharged into the water.
- Check with the DNR prior to any flood plain disposal of spoil material resulting from the streambank grading.
- If the regraded bank does not contain adequate topsoil to support good vegetative growth, topsoil should be placed on the slope as needed.
- Additional bank stabilization can be obtained by installing a buffer strip of trees, shrubs, and grasses adjacent to the streambank.

## Installation

There are several ways to apply the seed to the bank:

- A liquid seed mixture can be sprayed on the bank.
- The seeds can be evenly thrown on the bank and then covered with one-half inch of soil and lightly tamped to ensure contact with the soil. Straw or other suitable mulching material can also be used to provide initial bank stabilization and speed plant growth.
- Commercial seed mats can be used, giving more initial stabilization of the streambank (see Figure 1) and faster establishment.
- If increased vegetative growth is necessary, the slope can be treated with nitrogen in a 30-lb/acre application during the next growing season.



**Figure 2. Seeded bank after a few months of growth**