Low-Cost Gully Erosion Control
SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Many farmers are reviewing their conservation plans developed on highly erodible land to meet the requirements of the Food Security Act of 1985 (FSA). Some conservation plans include gully erosion control.

The high initial cost of commonly used gully erosion control structures may make some farmers think twice about building these structures—even with available cost-share programs. The U.S. Department of Agriculture’s Soil Conservation Service (SCS) has been looking for innovative, low-cost structures that will control soil erosion. There may be trade-offs in higher maintenance and shorter life span. These factors need to be considered before you make your final decision.

Four low initial cost grade stabilization structures are described in this publication to help you decide what structures to build to control gully erosion on your highly erodible land. Farmers with their own equipment may be able to build these structures without using outside labor and equipment.

If you need technical assistance to implement your conservation plan, visit your local SCS or soil and water conservation district office. Trained conservationists will help you with specific location and design of the proper gully erosion control structure.
Rock Lined Chute

The rock lined chute is used to lower surface water into the open channel where a gully has developed. The chute is sized according to the drainage area and site factors. Proper sizing of rock to withstand the expected velocity of water in the chute is the key factor.

Farmers can install this structure if they have their own equipment. A good source of rock must be available in the area.
Concrete Block Chute

The concrete block chute is used in similar locations as the rock lined chute. This structure can be built on a steeper slope which means it is shorter and does not extend into the field as far.

Second or used blocks from old concrete block buildings have been used to build this structure. Proper installation of a manufactured filter fabric under the blocks is a must for the success of this structure.
Wood Drop Structure

Wood has a history of being used in various ways to control soil erosion. Over the past few years, the wood drop structure has been used with much success.

The wood must be adequately treated to withstand contact with the soil in a wet condition. Materials available at your local lumberyard usually are not adequately treated for prolonged wet conditions.

Adequate drainage around this structure is required.
Vegetated Overfall Structure

The most economical way to solve gully erosion problems is with plants or grass, called vegetation. This is possible for very small drainage areas.

The vegetated overfall structure has been used in small watersheds. It will control gully erosion if properly designed and constructed. Normally, a manufactured erosion control blanket material is used in the bottom of the structure to control erosion and help protect the new vegetation.

Good drainage is needed in most sites.
Make Your Move Now!

Implement Your Conservation Plan by January 1, 1995

Stay Eligible

Keep Your USDA Program Benefits!

GO
This publication was developed by the USDA Soil Conservation Service (SCS) in Indianapolis, Indiana, and printed with funds made available from SCS National Headquarters in Washington, D.C.

September 1989

All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap.