

Vegetative Barrier

Conservation Practice Job Sheet

601



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Definition

Vegetative barriers are permanent strips of stiff, dense vegetation along the general contour of slopes or across concentrated flow areas.

Purpose

Vegetative barriers are used to reduce sheet and rill erosion, reduce ephemeral gully erosion, manage water flow, stabilize steep slopes, and trap sediment.

Where used

This practice applies to all eroding areas, including cropland, grazing land, forest land, farmsteads, mined land, and construction sites. Other site considerations include the need for a suitable outlet below the barrier and the capacity to readily establish adapted perennial vegetation. Vegetative barriers are most effective on slopes of less than 10 percent.



General specifications for vegetative barriers require: 1) a minimum width for each barrier strip of 36 inches (either a solid strip 36 inches wide or two rows planted 36 inches apart); 2) a maximum vertical and horizontal spacing between barriers determined by using terrace spacing equations (see Terrace, practice standard 600); 3) alignment as near to the contour as practicable, with minor adjustments to accommodate farming operations; and 4) plants having erect stems that are stiff enough to remain upright during heavy runoff events.

Resource management system

Vegetative barriers are normally established as part of a conservation management system to address natural resource conservation needs and landowner objectives. For this practice to be fully effective, it should be installed with other components of a resource management system that reduces sheet and rill erosion, such as conservation crop rotation, residue management, and contour farming.

Wildlife

Vegetative barriers provide excellent opportunities to improve wildlife habitat for some species by creating travel lanes that connect important habitat areas or by providing in-field escape cover. Wildlife benefits are enhanced by using native species or other adapted species that provide wildlife food and cover. The conservation practice standard for Upland Wildlife Habitat Management in the Field Office Technical Guide can provide guidance for choosing species that meet wildlife objectives.

Operation and maintenance

Vegetative barriers must be inspected periodically to assure that no voids develop in the protective strips of vegetation. Shape and replant washouts and rills as necessary to maintain plant density. Control spreading of barrier species into cropped areas. Control weeds in barrier strips so they do not become a seed source for adjacent cropland. Although vegetative barriers would usually receive adequate nutrients from fertilizer applied to adjacent cropland, they may need supplemental fertilizer to maintain adequate plant vigor. Control grazing and equipment traffic as necessary to protect barriers.

Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide and the Vegetative Barrier practice standard (601).

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Landowner _____ Field number _____

Purpose (check all that apply)	
<input type="checkbox"/> Reduce sheet and rill erosion	<input type="checkbox"/> Stabilize steep slopes
<input type="checkbox"/> Reduce ephemeral gully erosion	<input type="checkbox"/> Trap sediment
<input type="checkbox"/> Manage water flow	

Layout, Soil Amendments, Fertilization	Barrier 1	Barrier 2	Barrier 3	Barrier 4
Barrier width (feet)				
Rows per barrier				
Barrier length (feet)				
Barriers area (total acres)				
Field slope (%)				
Lime (tons/acre)				
N (lbs/acre)				
P ₂ O ₅ (lbs/acre)				
K ₂ O (lbs/acre)				

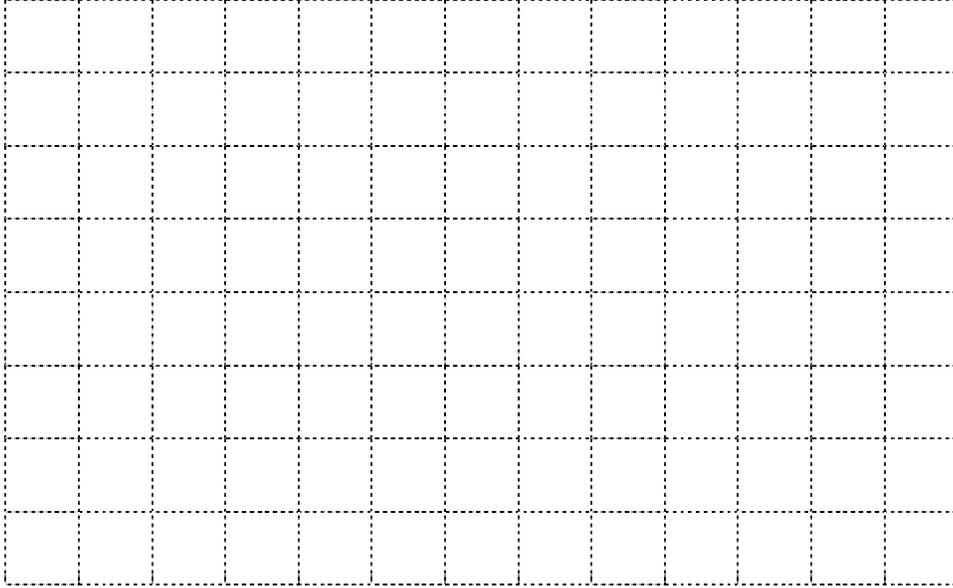
Plant Materials (species/cultivars)	Seeding Rate (pure live seed – lbs/acre)	Seeding Date
Barrier 1:		
1		
2		
3		
Barrier 2:		
1		
2		
3		
Barrier 3:		
1		
2		
3		
Barrier 4:		
1		
2		
3		

Site Preparation
<i>Prepare a firm seedbed. Apply lime and fertilizer as indicated by soil testing. Additional requirements:</i>
Planting Method
<i>Drill seed _____ inches deep uniformly in the row. Establish vegetation according to the specified seeding rate. If necessary, mulch newly seeded area with _____ tons per acre of mulch material. A small grain crop may be needed as a companion crop at the rate of _____ pounds per acre (clip or harvest before it heads out). Additional requirements:</i>
Operation and Maintenance
<i>Vegetative barriers must be inspected periodically to assure no voids develop in the protective strips of vegetation. Shape and replant washouts and rills as necessary to maintain plant density. Control spreading of barrier plants into cropped areas. Control weeds and fertilize to maintain plant vigor. Control grazing and equipment traffic as necessary to protect barriers. Additional requirements:</i>

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If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Scale 1"= _____ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



Additional Specifications and Notes:

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