NRCS Natural Resources Conservation Service

Contour Buffer Strips

Conservation Practice Job Sheet 332 WY-ECS-64

Definition

Contour buffer strips are strips of perennial vegetation alternated down the slope with wider cultivated strips that are farmed on the contour. Contour buffers strips are usually narrower than the cultivated strips. Vegetation in strips consists of adapted species of grasses or a mixture of grasses and legumes.

Purpose

Contour buffer strips established on the contour can significantly reduce sheet and rill erosion and reduce the transport of sediment and other water-borne contaminants as they pass through the buffer strip.

Resource management system

Contour buffer strips are normally concurrently applied with other practices, such as residue management, conservation crop rotation, and contour farming. Cultivated strip widths are determined by such variables as slope, soil type, field conditions, climate, and erosion potential. Species to use for contour buffer strips depend on soil types, and climate.

Requirements for establishing contour buffer strips include a minimum buffer strip width, with strips placed along the contour and farming operations that follow the approximate contour grade. Cultivated strip widths are determined by such variables as slope, soil type, field conditions, climate, and erosion potential. Cultivated strip widths may be adjusted to accommodate machinery widths. Buffer strips can be used as turn areas if care is taken to minimize disturbance to soil and vegetation. Waterways or diversions are needed where runoff collects and concentrated flow erosion is a problem. Contour buffer strips can be established between terraces to enhance treatment of the hill slope. A ratio of cultivated width to buffer strip width of between 9:1 and 4:1 is desirable. For reducing sheet and rill erosion, buffer strip width must be at least 15 feet for grasses or grass-legume mixtures and at least 30 feet for legumes alone.

Operation and maintenance

Mow buffer strips to maintain appropriate vegetative density and height for trapping sediment. Fertilize buffer strips according to soil test results. Spot seed or renovate buffer strip areas damaged by herbicides, equipment, or unusual rainfall events. Redistribute sediment accumulations as needed to maintain uniform sheet flow along the crop-strip boundary.

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Landowner_____ Field number_____

Purpose (check all that apply)	
☐ Reduce sheet and rill erosion	☐ Reduce transport of sediment and other water-borne contaminants downslope, on-site or off-site
☐ Increase water infiltration	

Layout	Strip 1	Strip 2	Strip 3	Strip 4
Cultivated strip width (feet)				
Buffer strip width (feet)				
Buffer strip length (feet)				
Area in buffer strip (acres)				

Species: attach WY-ECS-25 Seeding Plan	Seeding Rate (lbs/acre of pure live seed)	Seeding Date
Strip 1:		
Strip 2:		
Strip 3:		
Strip 4:		

Soil Amendments and Fertilization	Strip 1	Strip 2	Strip 3	Strip 4
N Fertilizer – (lbs/acre)				
P_2O Fertilizer – (lbs/acre)				
K_2O Fertilizer – (lbs/acre)				

Site Preparation

Prepare a firm seedbed. Apply lime and fertilizer as indicated by soil testing. Additional requirements:

Planting Methods

Drill grass and legume seed _____ inches deep uniformly over area. 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:

Operation and Maintenance

Maintain original width and length of contour buffer strips. Harvest, mow, reseed, and fertilize as necessary to maintain plant density and vigorous plant growth. Inspect after major storms, remove trapped sediment, and repair eroding areas. Shut off pesticide sprayers when turning on a buffer strip. Additional requirements: