

Contour Buffer Strips

Vermont Conservation Practice Job Sheet

332



SPECIFICATIONS

Site-specific requirements are listed on the following page(s) of this job sheet. Specifications are prepared in accordance with the Contour Buffer Strips 332 practice standard found in the Vermont NRCS Field Office Technical Guide. Information contained in this document is considered part of the conservation plan.

Client Name:		Town:	
Farm:		Tract:	
Designed By:		Date:	
Total Acres:		ORA:	

Purpose: <i>Check all that apply</i>	
Reduce sheet and rill erosion	Reduce transport of sediment and other water-borne contaminants downslope
Increase water infiltration	Other: (Specify)

GENERAL CRITERIA:

- Surface flow from contoured crop rows must be delivered to a stable outlet.
- The width of the cropped strip shall be designed to accommodate some multiple of full equipment width.
- No plants listed on the noxious weed list of Vermont will be established in a buffer strip cropping system.
- Buffer strips shall not be used as travel lanes for livestock or equipment.
- Buffer strips are not a part of the normal crop rotation, and shall remain in the location they were originally established until they need to be renovated or re-established.
- Row Grade: When the row grade of any crop strip reaches the maximum allowable design grade, a new baseline shall be established up or down slope from the last buffer strip and used for the layout of the next crop strip.
- Arrangement of strips: A crop strip shall occupy the area at the top of the hill, unless unusually complex topography requires vegetating this area in order to establish a farmable system.
- When used in combination with terraces, diversions or water and sediment control basins, the layout of the buffer strips shall be coordinated with the grade and spacing of the terraces so that the buffer strip boundaries will parallel the terraces as closely as possible. The buffer strip shall be located immediately upslope from the terrace channel or the storage area of the water and sediment control basin.

ADDITIONAL CRITERIA:

To reduce sheet and rill erosion:

- Minimum Row Grade: The cropped strips shall have sufficient row grade to ensure that runoff water does not pond and cause unacceptable crop damage.
- Maximum Row Grade: The maximum row grade shall not exceed:
- One-half of the up-and-down hill slope percent used for conservation planning, or 2%, whichever is less.
- Up to 3% row grade is allowed for a maximum of 150 feet as crop rows approach a stable outlet.
- When the row grade reaches the maximum allowable design grade, a new baseline shall be established up or down slope from the last contour line and used for layout of the next contour pattern.
- Width of strips: The minimum width shall be at least 15 feet wide for strips planted to grasses or grass-legume mixtures with at least 50% grass and at least 30 feet wide when legumes are used alone or legumes make up more than 50% of the stand. Buffer strip widths shall be increased as needed to keep the width of the cropped

strips uniform. Cropped strips shall be of uniform width between buffer strips and shall not exceed 50% of the slope length (L), used for the erosion calculation.

- **Vegetation:** Buffer strips designed to reduce sheet and rill erosion shall be established to permanent vegetation consisting of grasses, legumes or grass-legume mixtures. Species established shall be adapted to the site, and tolerant of the anticipated depth of sediment deposition. The buffer strips shall have at least 95% ground cover during periods when erosion is expected to occur on the cropped strips. The stem density for grasses and grass-legume mixtures shall be at least 50 stems per square foot, and for pure legume stands at least 30 stems per square foot.

To reduce the transport of sediment and other water-borne contaminants downslope

- **Minimum row grade:** The cropped strips shall have sufficient row grade to ensure that runoff water does not pond and cause unacceptable crop damage.
- **Maximum row grade:** The maximum row grade within the crop strips shall not exceed one-half of the up-and-down hill field slope used for conservation planning or 2%, whichever is less. Up to 3% row grade is allowed for a maximum of 150 feet as crop rows approach a stable outlet.
- **Vegetation:** Buffer strips designed for this purpose shall be established to permanent sod-forming vegetation with stiff, upright stems.
- **Width of strips:** Buffer strips for this purpose shall be at least 15 feet wide. The buffer strip widths shall be increased as needed to keep the width of the cropped strips uniform. The maximum width of cropped strips shall be one-half of the field slope length or 150 feet, whichever is less. A maximum of 15% deviation of the maximum cropping strip width shall be allowed to accommodate equipment widths.
- **Arrangement of strips:** In addition to the buffer strips established on the hillside, a buffer strip will be established at the bottom of the slope. This strip shall be two times the width of the narrowest buffer strip in the system.

To increase water infiltration

- **Row grade:** The grade along the upper edge of the buffer strip shall not exceed 0.2%.

OPERATION AND MAINTENANCE:

- Conduct all farming operations parallel to the strip boundaries except on headlands or end rows with gradients less than the criteria set forth in this standard.
- Time mowing of buffer strips to maintain appropriate vegetative density and height for optimum trapping of sediment from the upslope cropped strip during the critical erosion period(s).
- Fertilize buffer strips as needed to maintain stand density.
- Mow sod turn strips and waterways at least once a year.
- Spot seed or totally renovate buffer strip systems damaged by herbicide application after residual action of the herbicide is complete.
- Redistribute sediment that accumulates along the upslope edge of the buffer strip/crop strip interface as needed. This sediment shall be spread evenly upslope over the cultivated strip when needed to maintain uniform sheet flow along the buffer/cropped strip boundary.
- If sediment accumulates just below the upslope edge of the buffer strip to a depth of 6 inches or more, or stem density falls below specified amounts in the buffer strip, relocate the buffer/cropped strip interface location.
- Cultivated strips and buffer strips shall be rotated so that a mature stand of protective cover is achieved in a newly established buffer strip immediately below or above the old buffer strip before removing the old buffer to plant an erosion-prone crop. Alternate repositioning of buffer strips to maintain their relative position on the hill slope.
- Renovate vegetated headlands or end row area as needed to keep ground cover above 65 percent. Renovation shall only include the immediate seedbed preparation and reseeding to a sod-forming crop with or without a nurse crop.

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Note: Selection lists available in the following tables are for the user's convenience. Custom entries can be made.

Table 1 Contour Buffer Strip Information

Location and Layout Information	Field #				
	Strip #				
Land Slope %	%	%	%	%	%
Hydrologic Soil Group					
Cultivated Strip Width	FT	FT	FT	FT	FT
Buffer Strip Width	FT	FT	FT	FT	FT
Buffer Strip Length	FT	FT	FT	FT	FT
Acres of Buffer Strip	AC	AC	AC	AC	AC

Table 2 Contour Buffer Strip Planting Specifications

Field Number	Contour Strip Number	Plant Species to be Established	Seeding Dates	Seeding Rate (lb/ac)	Lime (tons/ac)	Fertilizer Recommendation

Additional Comments:

Provide an aerial view or sketch of the planned contour buffer strips layout below. Show the approximate location of the baselines used to establish the system and the location of stable outlets for the system. Other relevant information, complementary practices and measures, and additional specifications may be included.

Recommendation: Import digital photographs to indicate practice before and after effects. For instructions regarding importing graphics to this document go to: ftp://ftp-fc.sc.egov.usda.gov/VT/Technical/Help/Adobe_PDF_Help_1.pdf



If you have questions about this planned **Contour Buffer Strip** practice contact:

Name:		Tel:		Email:	
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