

# Contour Buffer Strips

Nebraska Conservation Planning Sheet No. 7



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## What are contour buffer strips?

**Contour buffer strips** are strips of perennial vegetation alternated with wider cultivated strips, farmed on the contour. These strips of permanent vegetation slow runoff and trap sediment. Combined with the benefits of farming on the contour and practicing crop residue management, contour buffer strips are an effective conservation practice. This practice is most effective when used with other conservation practices such as conservation tillage and crop rotation.

## How contour buffer strips help the land

Buffer strips established on the contour can reduce sheet and rill erosion by as much as 75 percent, depending on land slope and the width of strips in perennial vegetation in the field. Buffer strips can also provide food and nesting cover for wildlife.

## Where the practice applies

Contour buffer strips can be used on any cropland where sheet and rill erosion are a problem. They are an excellent filter for runoff water which improves surface water quality.

## Where to get help

For assistance in planning and establishing a contour buffer strip system on your farm, contact the Natural Resources Conservation Service office. The NRCS staff can develop a conservation plan for your farm. Refer to NRCS Contour buffer strip Conservation Practice Standard (332) for specific information concerning:

- Results of NRCS-approved erosion prediction tools
- Width of perennial vegetation strips

- Alignment along contour
- Vegetative cover (seeding recommendations)
- Stable outlets
- Supporting or facilitating conservation practices
- Adjusting strip widths to accommodate machinery

## Requirements of contour buffer strips

Here are the maximum strip widths to be used in your fields.

	Actual	Example
Field # / Tract	_____	T123 #1
Cultivated strip width	_____	90'
Buffer strip width	_____	30'
Field # / Tract	_____	T123 #2
Cultivated strip width	_____	75'
Buffer strip width	_____	25'
Field # / Tract	_____	
Cultivated strip width	_____	
Buffer strip width	_____	

*Cultivated strip widths may be adjusted, generally downward, to accommodate machinery widths.*

Recommended seeding Species/variety	Pure live seed lbs/ac
_____	_____
_____	_____
_____	_____

Recommended fertilizer (lbs/ac)			
N	P	K	Lime
_____	_____	_____	_____

## Applying the practice

This practice is considered applied when the contour buffer strips are installed according to the specifications listed above.

Select one of two methods to lay out a contour buffer strip system. One layout method results in parallel cultivated strip widths, the other results in parallel vegetative (grass) strip widths.

### Parallel cultivated strips:

- Generally, more area of the field will be in the buffer strip.
- Farmed area will have parallel rows.
- The width of the buffer strip varies; make sure the width stays greater than 15 feet, or the specified width listed above.

### Parallel grassed strips:

- More of the area will be farmed.
- Cropped strip width varies. There will be more short rows.
- Buffer strips can be used as turn areas to plant point rows.

### How to lay out parallel cultivated strips:

1. Establish a contour line on the slope, approximately eye level height down from the high point on the ridge. This becomes the top edge of the buffer strip. (For instructions on laying out contour lines refer to the planning sheet on contour farming.)
2. On the steepest part of the slope, measure down the hill, from the contour line, the width of the buffer strip. From that point establish a contour line that becomes the down hill edge of the buffer strip.
3. From the lower contour line, measure downhill to flag a parallel line the width of the cultivated strip. From this flag line, return to step 2 above. Continue steps 2 & 3 as needed.

### How to lay out parallel grassed strips:

1. Establish a contour line on the slope, approximately eye level height down from the high point on the ridge. This becomes the top edge of the buffer strip. (For instructions on laying out contour lines refer to the planning sheet on contour farming.)
2. Measure down from the contour line a parallel strip the width of the buffer strip (grass strip). This will establish the lower edge of the buffer strip.
3. On the steepest part of the slope, measure down the hill from the lower edge of the buffer strip, the width of the cultivated strip. Use the elevation at that point to establish a contour line that becomes the downhill edge of the next cultivated strip or the top edge of the next buffer strip. Continue steps 2 & 3 as needed.

### With both systems of layout:

Adjust the lines to stay on the contour. Make grass turn strips on narrow ridges, where sharp curves occur. Establish

waterways in drainage ways. During planning, consider conditions unique to the field like side hill seeps, entry areas to the field and short steep areas.

### Establish the vegetation:

Obtain a NE-CPA-8 Job Sheet for Grass Seeding from your local NRCS office for specific information concerning your fields, including:

- Application of lime and fertilizers based on a soil test.
- Acceptable cover conditions at planting time.
- Seedbed preparation including weed control prior to or at planting time.
- Use of cover crops or companion crops.
- Mulching of areas subject to erosion.
- Grass and legume species/variety selection.
- Seeding dates, depths and equipment.

### Other Considerations

- Contour buffer strips may qualify as a continuous Conservation Reserve Program (CRP) practice. Consult your local USDA Service Center for CRP annual payment rates and requirements.
- Contour buffer strips may be replaced if the grass or legume stand is poor, but they must be replaced with equal sized buffer strips in the same year.
- Point rows are not a problem because buffer strips can be used as turn areas.
- Waterways are needed where runoff concentrates and erosion is a problem.
- Generally contour buffer strips are needed only on hillsides without terraces and are not needed on flatter hilltops and bottoms.
- Contour buffer strips can be used below terraces to complete treatment of hillsides.
- Contour buffer strips can be hayed if it is allowed. Buffer strip widths can be adjusted to accommodate haying equipment size.

### Maintaining the practice

Contour buffer strips will need maintenance. Control weeds and brush by mowing and use of herbicides, as needed. To be most effective, buffer strips should have tall vegetation in spring and early summer. To help ground-nesting birds and their young, mow after July 15 but before September 1.

For more information refer to the Nebraska Field Office Technical Guide (eFOTG)

([http://efotg.nrcs.usda.gov/efotg\\_locator.aspx?map=NE](http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=NE)), Section IV, Conservation Practice Standard – Contour buffer strip, (332), or your local Natural Resources Conservation Service Office.