

Natural Resources Conservation Service (NRCS) - Minnesota



What is Stripcropping?

Strip cropping is a system of growing crops, forages, small grain and fallow in equal width strips arranged across a field. Strips of row crops (usually corn and soybeans or fallow) are alternated with strips of small grain, grass or legumes.

How it helps the land

The crops are arranged so that a strip of grass or close-growing crop is alternated with a clean tilled strip or a strip with less protective cover. Generally the strip widths are equal across the field. On sloping land where sheet and rill erosion are a concern, the strips are laid out on the contour or across the general slope. Where wind erosion is a concern, the strips are laid out as close to perpendicular as possible to the prevailing erosive wind direction.

Applying the Practice

Estimate how many acres of each crop you want every year. Make sure your crop rotation allows for alternating row crops with hay or grain crops. The proportion of row crops with close growing crops or meadow should be consistent with the farm enterprise crop mix. The number of fields (strips) needed to produce a nearly constant acreage of each crop for each year in the rotation is equal to one half of the years in the rotation. For example, a six year rotation of corn, corn, small grain, hay, hay, hay would work best with three strips of equal size.

Plan your fields by sketching out your strips on paper and labeling the crop in each strip year-by-year for

the next five to seven years, to help you visualize your rotation and layout. Not more than half the field should be in row crop in any one year. Be sure herbicide carryover will not be a problem.

The width of each strip should be nearly equal. Strip widths may be adjusted downward to accommodate your equipment widths for even rounds, and to accommodate any correction strip needed to keep strips within prescribed row grade limits. Strip cropping is not as effective if crop strips become too wide, especially on steep slopes.

Follow the planned crop rotation to rotate perennial crop strips with annual crop strips. Substituting a crop or adjusting the rotation due to failed crops or loss of stand is acceptable, provided neither situation allows row crops in two adjacent strips. Manage herbicide applications to avoid overlap and/or drift onto adjacent rotation hay strips.

Additional Criteria for Strips applied to reduce water erosion

Most contour strip cropped fields will have odd areas. These areas should be tilled and planted parallel to adjacent strips. This will help runoff water move slowly off the field.

Plant field borders where there would normally be end rows running up and down hill. This reduces erosion that may occur in these areas and provides important travel lanes during haying or harvest. Do not continue rows across the ridge. Turns are difficult and short rows usually develop. Instead,

leave grass turn strips where turns become sharp. They should be wide enough to make a turn with tractor and equipment. This eliminates sharp turns and provides convenient access to strips.

Grassed waterways will need to be established and /or maintained. They are important for same disposal of excess surface water. Do not till through waterways. Lift tillage equipment and turn off spraying equipment when crossing waterways.

Additional Criteria for Strips applied to reduce wind erosion

Strip boundaries shall run parallel to each other and shall be oriented as close to perpendicular to the prevailing wind erosion direction as practical. Strips having protective cover and managed as part of a crop rotation may be the same width as the erosion-susceptible strips or may be narrower, but shall not be less than 25 feet wide.

Maintenance

Sediment accumulations along the upslope edge of protected strips may need to be smoothed or redistributed to maintain uniform sheet flow along the strip boundary.

When headlands are in permanent cover, renovate as needed to keep the ground cover above 65 percent. Follow the planned crop rotation to rotate perennial crop strips with annual crop strips. Rotation of crops is the key to making the strip cropping system effective for both crop production and erosion reduction. Adjusting the crop rotation due to failed crops or loss of stand is acceptable provided neither situation allows two adjacent erosion-susceptible strips.

Maintenance Specific to Erosion by Water

Conduct all farming operations parallel to the strip boundaries as much as practical. Plant correction areas as closely as possible to the contour. Using no-till in the correction areas or seeding close-grown crops rather than row crops in these areas increases options.

Mow sod turn-strips and grassed waterways at least once a year. Harvesting is optional.

Maintenance Specific to Erosion by Wind

The protective cover in the erosion resistant strips and the surface roughness must be adequate to control the erosion caused by the wind and to trap blowing soil particles.

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Stripcropping – Job Sheet

Landowner _____ Field number(s) _____

Purpose (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Reduce water erosion and transport of sediment and other water-borne contaminants | <input type="checkbox"/> Protect growing crops from damage by wind-borne soil particles |
| <input type="checkbox"/> Reduce soil erosion from wind | |

Stripcropping Details (Site 1))	
Field #(s):	
Acres	
Planned Number of Strips	
Field Slope %	
Maximum Planned Strip Width	
Maximum Planned Row Grade	
Planned Crop Rotation	
Planned Tillage	
Erosion-Resistant Strips: Vegetation Type or Management	
Non-Erosion Resistant Strips- Vegetation Type or Management	

Stripcropping Details (Site 2))	
Field #(s)	
Acres	
Planned Number of Strips	
Field Slope %	
Maximum Planned Strip Width	
Maximum Planned Row Grade	
Planned Crop Rotation	
Planned Tillage	
Erosion-Resistant Strips - Vegetation Type or Management	
Non-Erosion Resistant Strips – Vegetation Type or Management	

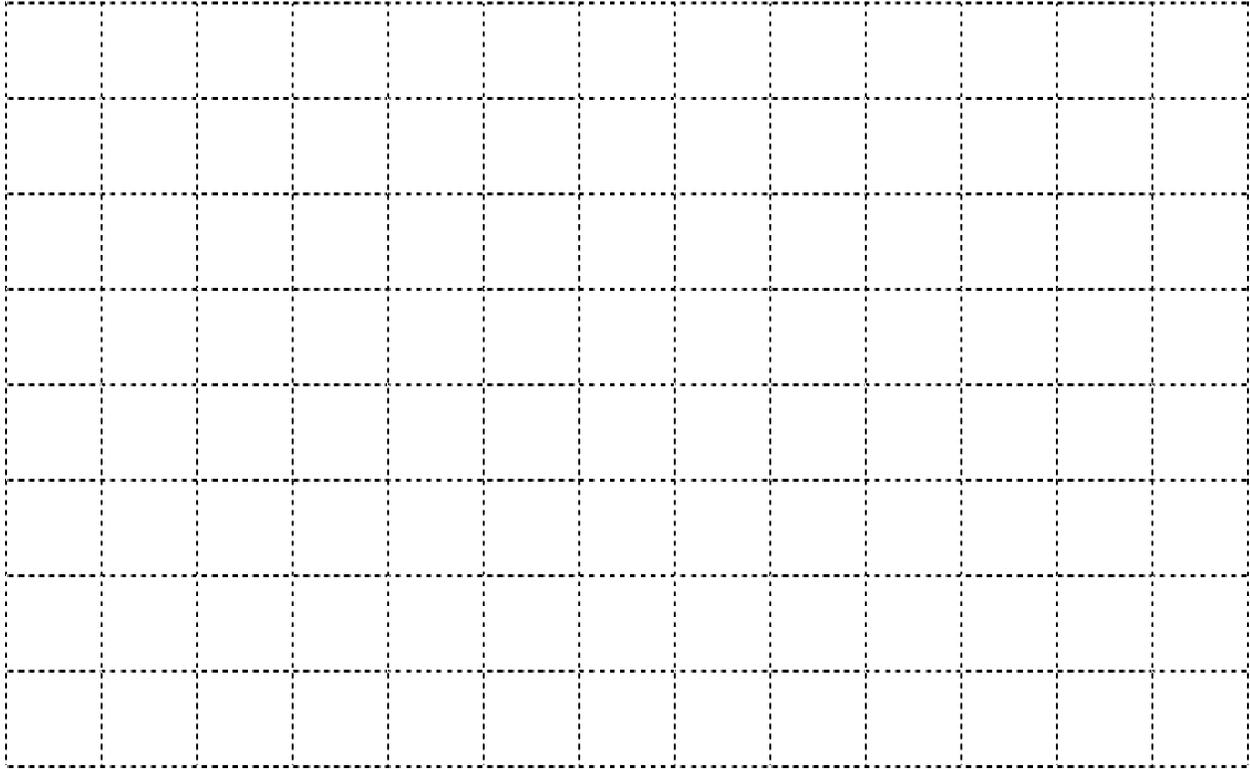
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If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

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



Additional Specifications and Notes:

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