



Photo courtesy of USDA NRCS.

What is Stripcropping?

Stripcropping is a system of growing crops, forages, small grain and meadow in equal width strips arranged across a field. Strips of row crops are alternated with strips of small grain, grass or legumes.

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 are needed each year. The crop rotation should provide alternating row crops with hay or small 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, and three years of hay would work best with three strips of equal size.

Plan the fields by sketching out the strips on paper and labeling the crop in each strip year-by-year for the next five to seven years. Not more than half the field should be in row crop in any one year. Evaluate the existing and anticipated herbicide program so that carryover will not prevent the implementation of the rotation.

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 effectiveness in controlling erosion diminishes as crop strips widen, especially on steep slopes.

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 to reduce water erosion

Most contour strip cropped fields will have odd areas. The areas should be tilled and planted parallel to adjacent strips in order slow surface runoff and increase infiltration.

Plant field borders where there would normally be end rows running up and down hill. Field borders reduce end row erosion and provide travel lanes and places to park equipment during haying or harvest. Do not plant rows across the ridge as the turns are usually sharp and short rows usually develop. Instead, leave grass turn strips where turns become sharp. The turn strips should be wide enough to allow for safe turns with tractor and equipment. Grassed waterways will need to be established and maintained where row water is outletted. 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. The prevailing wind DIRECTION shall be determined during the most erosive period during the year. Strips having protective cover and managed as part of a crop rotation may be the same width as the erosion-susceptible strips or be narrower, but shall not be less than 25 feet wide.

Maintenance

Sediment accumulations along the upslope edge of sod 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.

Stripcropping – Job Sheet

Landowner
Field number(s)

Tract 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"/> Reduce soil erosion from wind	<input type="checkbox"/> Protect growing crops from damage by wind-borne soil particles
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	

