

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

STRIPCROPPING, CONTOUR

(acre)
CODE 585

DEFINITION

Growing crops in a systematic arrangement of strips or bands on the contour to reduce water erosion. The crops are arranged so that a strip of grass or close-growing crop is alternated with a strip of clean-tilled crop or fallow or a strip of grass is alternated with a close-growing crop.

PURPOSES

To reduce erosion and control water.

CONDITIONS WHERE PRACTICE APPLIES

On sloping cropland and on certain recreation and wildlife land where the topography is uniform enough to permit tilling and harvesting, and where it is an essential part of a cropping system to effectively reduce soil and water losses.

CRITERIA

All tillage and other cultural operations will be performed on the contour. Permissible deviations from the contour are permitted up to 10 percent of the field slope for a maximum continuous distance of 200 feet and then must return to contour. If the field slope is 10 percent, then the row grade could change to a 1 percent grade (1.0 ft. drop per 100 feet) for 200 feet.

Selected fields shall have continuous slopes with nearly uniform grade or are slightly concave.

Maximum width of strips will be 200 feet on slopes up to 10 percent and 100 feet on slopes exceeding 10 percent.

CONSIDERATIONS

In grain-fallow systems, fallowed strips will usually need straw residue cover for the practice to provide effective erosion control.

Contour stripcropping will improve the effectiveness of support practice factor "P" when applying the

Universal Soil Loss Equation or the Revised Universal Soil Loss Equation.

Water Quantity

This practice may reduce the amount of surface runoff, may increase infiltration, and may increase the quantity of water available for percolation to the ground water. The base flow in nearby streams may be extended.

1. Effects on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, deep percolation and ground water recharge.
2. Variability of effects caused by seasonal weather variations.
3. Potential for a change in plant growth and transpiration because of changes in the volume of soil water.

Endangered Species Considerations

Determine if installation of this practice with any others proposed will have any effect on any federal or state listed Rare, Threatened or Endangered species or their habitat. NRCS's objective is to benefit these species and others of concern or at least not have any adverse effect on a listed species. If the Environmental Evaluation indicates the action may adversely affect a listed species or result in adverse modification of habitat of listed species which has been determined to be critical habitat, NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid the adverse effects. Further assistance will be provided only if the landowner selects one of the alternative conservation treatments for installation; or at the request of the landowners, NRCS may initiate consultation with the Fish and Wildlife Service, National Marine Fisheries Service and/or California Department of Fish and Game. If the Environmental Evaluation indicates the action will not affect a listed species or result in adverse modification of critical habitat, consultation generally will not apply and

usually would not be initiated. Document any special considerations for endangered species in the Practice Requirements Worksheet.

Some species are year-round residents in some streams, such as, freshwater shrimp. Other species, such as steelhead and salmon, utilize streams during various seasons. Be aware that during critical periods, such as spawning, eggs in gravel's, and rearing of young may preclude activities in the stream that may directly affect the stream habitat during those periods. For example there should be no disturbance of stream gravel beds that may have eggs in them. That could include any equipment in the stream or even walking in the stream or work upstream that may result in sediment depositing in the gravel beds. Document any special considerations for endangered species in the Practice Requirements Worksheet.

Water Quality

This practice may reduce erosion and the amount of sediment and related substances delivered to the surface waters. The practice may increase the amount of water, which infiltrates into the root zone, and, at the time there is an overabundance of soil water, this water may percolate and leach soluble substances into the ground water.

1. Filtering effects of vegetation on movement of sediment and dissolved and sediment-attached substances.
2. Effects on erosion and the movement of sediment, pathogens, and soluble and sediment-attached substances that could be carried by runoff.
3. Potential for development of saline seeps or other salinity problems resulting from increased infiltration near restrictive layers.
4. Effects on the visual quality of downstream water resources.

PLANS AND SPECIFICATIONS

Specify width of strip, based on percentage of slope, and allowable deviation from the contour or specified grade and row length.

Specifications must be supported by a drawing giving steepness of slope, contour gradients, strip widths, and crops to be grown.

OPERATION AND MAINTENANCE

Maintenance needed for this practice includes protecting the permanent guide rows for each strip, periodic inspection and repairs to runoff water outlets, and protecting up and downhill farm roads from erosion.