

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

**CONTOUR ORCHARD AND OTHER FRUIT AREA
(Ac.)**

CODE 331

DEFINITION

Planting orchards, vineyards, or small fruits so that all cultural operations are done on the contour.

Where topography will permit, smooth or level the surface to improve tree row alignment.

Install adequate runoff disposal systems such as terraces, grassed waterways, or diversions.

PURPOSE

- Reduce soil erosion
- Reduce water loss
- To operate farm equipment more easily and safely

Additional Criteria to Reduce Soil Loss

Sloping sites should be established to perennial vegetation between rows. Diversion and terrace channels should be seeded.

Use current soil loss prediction technology to plan adequate systems for erosion control. Contouring may be supplemented by terraces, diversions, and land cover establishment.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on sloping land where orchards, vineyards, small fruit or nut crops are to be established. This practice is most effective on slopes between 2 and 10 percent. It will be less effective in achieving the stated purpose(s) on slopes exceeding 10 percent. The practice is not well suited to rolling topography having a high degree of slope irregularity because of the difficulty of meeting the row grade criteria.

The row grade will be aligned as closely as possible to the contour to achieve the greatest erosion reduction, but shall not exceed one percent.

Additional Criteria to Better Control and use Water

The row grade shall not be less than 0.2 percent on soils with slow to very slow infiltration rates (hydrologic soil group C or D) or where the crop to be planted will be damaged by ponded water conditions for periods of less than 48 hours.

CRITERIA

General Criteria Applicable to All Purposes

Temporary erosion control measures shall be applied as necessary to disturbed or cleared land until the planting is established.

Any farm roads installed in conjunction with this practice shall meet the criteria for Access Road, code 560.

Overland flow from adjacent fields shall be diverted as necessary to ensure the proper functioning of this practice.

Up to 3 percent row grade is permitted within 150 feet of the approach to a grassed waterway, field border or other stable outlet.

On unterraced fields, rows should be placed on terrace grade.

Stable outlets shall be established as necessary where runoff results in concentrated flow erosion. Stable outlets include grassed waterways, field borders, or filter strips.

Reduced surface runoff may increase the opportunity for increased infiltration. Soil moisture may be increased, providing additional water for transpiration.

Additional Criteria to operate farm equipment more safely and easily

Fields that are cut by gullies or have abruptly changing topography are not well suited for this practice.

To minimize the potential for washouts, avoid driving on farm roads as much as possible during the rainy season.

Adjust distance between rows to eliminate sharp turns.

Integrate access roads into plans for terraces, diversions, grassed waterways, contour rows, and turn rows.

Field borders and grassed waterways may be used as occasional travel-ways when adequate vegetation is maintained.

CONSIDERATIONS

Uniform topographic conditions are desirable. Modifications to surface conditions may be needed prior to establishment of this practice.

Soils selected should be adapted to the crops being planned.

Stay within grade limits in the arrangement of the maximum number of long rows, placed as nearly parallel as possible. Distances between rows may need to be adjusted to eliminate inside point rows.

PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for each field. List the planned grades for tree or vine rows and the allowable deviation from the contour for the planting pattern on each field.

Specify the location of water disposal practices.

OPERATION AND MAINTENANCE

Maintenance needed for this practice includes:

- Performing all cultural operations on the contour between tree or vine rows
- Periodic inspection and repairs to runoff water outlets
- Protecting uphill and downhill farm roads from erosion, and
- Maintaining adequate vegetative cover to control erosion.