

Contour Orchard And Other Fruit Areas

North Carolina Practice Job Sheet 331

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



Orchard laid out on the contour and well-maintained in vegetation will have minimal soil and water losses.

DEFINITION

Planting orchards, vineyard, or other perennial crops so that all cultural operations are done on or near the contour.

PURPOSE

- Reduce soil erosion.
- Reduce transport of sediment and other associated contaminants.
- Increase infiltration.

CONDITION WHERE PRACTICE APPLIES

This practice applies on sloping land where orchards, vineyards, or other perennial crops are to be established.

CRITERIA

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

Row Grade. The row grade will be aligned as closely to the contour as feasible, but the maximum row grade shall not exceed

- one-half of the up-and-down hill slope percent used for conservation planning

OR

- 10 percent,

whichever is less.

Up to a 25% deviation from the design row grade is permitted within 150 feet of a stable outlet.

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.

Critical Slope Length. This practice shall not be installed on a hill slope that is longer than the critical slope length.

When the critical slope length is exceeded, the slope length shall be divided through the use of diversions, terraces, or other structures to shorten slope lengths.

Stable Outlets. Runoff from contour rows shall be delivered to a stable outlet.

CONSIDERATIONS

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 and in areas with 10-year EI (EI = total storm energy times the maximum 30-minute intensity) values greater than 140.

Planting orchards and fruit areas on the contour generally requires a bench or terrace to be constructed to provide access to the growing trees or shrubs. The bench or terrace may reduce surface runoff and increase the opportunity for infiltration.

Contouring can improve access to fields, facilitate maintenance, and improve energy efficiency.

This practice works best as a system in combination with vegetative ground cover and appropriate irrigation conveyance practices, where applicable.

OPERATION AND MAINTENANCE

Additional Operation and Maintenance requirements specific to this Plan:

Maintenance needed for this practice includes:

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

PLANS AND SPECIFICATIONS

Specifications will be prepared for each planning unit according to practice criteria. Specifications will be recorded using North Carolina specification sheets, job sheets, narrative statements in conservation plans, or other acceptable documents.

Client Name:		Farm #:	
County:		Tract #:	
Program:		Field(s):	
Date:			

Purpose (Check all that apply):	
<input type="checkbox"/> Reduce soil erosion.	<input type="checkbox"/> Reduce transport of sediment and other associated contaminants.
<input type="checkbox"/> Increase infiltration.	

Field (s)				
Plant Species				
Percent Slope				
Row Grade Minimum				
Row Grade Maximum				
Stable Outlets				

Attach sketch map or photograph of the field(s) showing:

- Approximate location of the baselines used to establish the system.
- Location of stable outlets for the system.