Contour Orchard and Other Fruit Area (acre)

Definition

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

Purpose

To reduce soil and water loss, to better control and use water, and to operate farm equipment more easily.

Conditions where practice applies

On sloping land where soil and water losses need to be controlled, especially if a permanent cover is not established.

Planning considerations

Water Quantity

1. Effects on the water budget, especially effects on volume and rates of runoff and infiltration.

2. Decreases in surface runoff and increases in infiltration with any benches or terraces constructed to provide access to growing plants. Consider the type of bench or terrace (inward sloping versus outward sloping), width, degree of slope, and vegetative cover at the time of runoff.

Water Quality

1. Effects on erosion and the movement of sediment, and soluble and sediment-attached substances carried by runoff.

2. Effects of increased volumes of soluble nutrients, pesticides, and salts contained in infiltrating water. Comparison should be made to non-contoured orchards on sloping ground or to the present land use if not now in orchard.

Specifications guide

Allowable deviation from the true contour.

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Soil Conservation Service

Technical Guide
Section IV
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CONTOUR ORCHARD AND OTHER FRUIT AREA (Acre)

Specifications Guide

I. Site Selection

1. **Topography**: Uniform topography is desirable. Sites that are gullied or have an unusual number of ravines and abrupt slope changes should be avoided. Where soils will permit, plan land leveling or smoothing as needed to improve alignment of tree rows, diversions, or terraces.

2. **Soils**: Soils selected should be adapted to crop to be grown and be free from disease.

3. **Irrigation Possibilities**: Location of orchards and vineyards near sources of irrigation water is highly desirable.

II. Planning Orchard Layout

1. Plan adequate water disposal systems, using adapted perennial vegetation for grassed waterways, field borders, and access roads.

2. Use Soil Loss Prediction and/or Wind Erosion Equation to determine the combination of treatment needed to supplement contouring such as terraces, diversions, and land cover and management.

3. Row Layout

   The maximum number of long rows as nearly parallel as possible while staying within grade limitations should be the objective.

   a. On unterraced fields, rows should be generally layed off with terrace grades.

   b. On terraced fields, rows should be layed out as near parallel to terraces as practical.

   c. To provide for practical row arrangement, grades may vary from the contour as much as 2 percent and as much as 3 percent for short distances on irregular topography.

d. Row layout should be planned so that point rows will be along outside edges of field whenever practical. Distances between nearly parallel rows may be altered slightly to eliminate inside point rows.

e. Where desirable, adjust distance between rows to eliminate sharp turns and facilitate machinery operation. Tree spacing in rows may be adjusted to offset the wider rows.

f. Sloping sites should be established in adapted perennial vegetation between rows. When terraces are used on steep slopes, channels and ridges will be seeded to perennials. (See Terraces -- Code 600).

III. **Access Roads**

1. Planning for access roads is an integral part of planning and laying out waterways, contour lines, terraces and turn rows.

2. Distance between rows can be increased as needed to provide for roads. If necessary, roads may be located down the slope of ridges in the field. Field borders and grassed waterways may be used as occasional travelways when adequate perennial vegetation is maintained.