



GUIDELINES TO EVALUATE CHERRIES FOR COMMERCIAL PLANTING IN THE SIERRA NEVADA FOOTHILLS

Maximum elevation: 2500 feet level terrain, 3000 on ridge tops

Optimum elevation: 2000-3000 for best quality, 2000-2300 feet for best market timing.

Soil texture: Sandy loam, loam, silt loam, clay loam

Soil families: Holland, Sierra, Josephine, Aiken, Cohasset, Sites, Musick, Shaver are the better soil types.

Acceptable drainage: Very good

Acceptable soil depth:

Minimum - 2 feet

Optimum - 4 to 5 feet?

Slope: Neutral, south, southwest, west, east, slightly north

Row orientation: North to south is best for close in row tree spacing. Frost potential and steepness of slope would be overriding factors.

Water required: Inches per season (orchard with groundcover)

1000-1500 = 32 to 48 inches

1500-2000 = 30 to 34 inches

2000-2500 = 26 to 39 inches

2500-3000 = 24 to 36 inches

Add 10-15% for south, southwest slopes. Subtract 10-15% for north, northeast slopes. Add 25-30% for extra heavy cover crop. Add 20-30% to all irrigations to account for system losses and inefficiencies.

Note: Most foothill soils store 1.5 to 2 inches of water per foot from winter rainfall. This water and any rainfall during summer can be subtracted when calculating irrigation needs.

Temperature constraints - 28°F at full bloom and 30°F for small green fruit. 20 to 25°F at bud break may be followed by bacterial canker infection. Hot summer temperatures below 1500 feet may induce fruit doubling and spurs the following season. The harvest season can be dramatically shortened by hot weather during harvest. Ridge tops are especially desirable for cherries to avoid frost and water drainage problems.

Age:

To bearing - 5 to 6 years

Maximum bearing - 9 to 10 years

Prime bearing years - 10 to 30 years

Varieties:

Bing - 90% of cherries planted are Bings. Van, Rainier, Early Burlat are desirable pollinizers at one tree per 15 to 20 Bings.

Rootstocks:

Sweet cherry (Mazzard) makes large trees

Colt - Good for wet ground, earlier production and smaller trees

Avoid mahaleb as nearly impossible to stop gopher girdling.

Number of trees per acre: 100-200. Spacing from 20' x 20' to 18' x 12' (with 2 leader training).

Irrigation methods:

Micro sprinklers

Portable sprinklers

Permanent set under-tree sprinklers

Drip on nearly level ground

Yields:

Fair - 2 tons per acre

Good - 3 to 4 tons per acre

Excellent - 6 tons per acre

Major diseases: Bacterial canker (especially on former orchard sites), phytophthora crown and root rot, buckskin, prunus stem pitting, brown rot.

Persistent insect pests: Pests are sporadic in occurrence

Other common pests problems: Birds, deer, gophers, meadow mice.

Culture:

Training - 3 leader or 2 leader.

Weeds - 1. Cultivation followed by mowing.

2. Strip spray weeds in row and mow row centers or plant perennial cover crop (dwarf strains of rye, fescue or orchard grass) in row centers or spray row centers in late spring with Roundup (where micro sprinklers or drip irrigation is practiced).

Pruning - Light annual thinning, maintain top height and keep open to sunlight penetration.

Irrigation - Irrigate to 60 centibars on tensiometer (18 inch depth) before harvest and 70-80 after harvest.

Spraying - 2 to 4 for nonbearing, 1 to 3 for bearing.

Establishment Costs:	<u>Per Acre</u>
Fencing	\$ 200 - 400
Trees	400 - 800
Irrigation System	400 - 1200
Materials	600 - 800
Labor	1100 - 1600
Miscellaneous	100 - 800
TOTAL	\$ 2800 - 5600

Equipment Costs:	<u>Per Farm</u>
Part time farm (minimum)	1000
Full time farm	
New	\$ 50,000 - 80,000
Used	12,000 - 15,000

Production Costs:	<u>Per Acre</u>
Cultural	250 - 400
Harvest	500 - 1200
TOTAL	\$ 750 - 1600

Annual Gross Income:	<u>Per Acre</u>
	\$ 2,000 - 10,000

Prepared by Dick Bethell, County Director, University of California Cooperative Extension, El Dorado County. July, 1988.

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