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

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


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 Add 10-15% for south, southwest slopes. Subtract 10-15%
1500-2000 = 30 to 34 inches for north, northeast slopes. Add 25-30% for extra heavy
2000-2500 = 26 to 39 inches cover crop. Add 20-30% to all irrigations to account for
2500-3000 = 24 to 36 inches 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), phytophera 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.

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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: Per Acre

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fencing</td>
<td>$200 - 400</td>
</tr>
<tr>
<td>Trees</td>
<td>$400 - 800</td>
</tr>
<tr>
<td>Irrigation System</td>
<td>$400 - 1200</td>
</tr>
<tr>
<td>Materials</td>
<td>$600 - 800</td>
</tr>
<tr>
<td>Labor</td>
<td>$1100 - 1600</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$100 - 800</td>
</tr>
</tbody>
</table>

TOTAL $2800 - 5600

Equipment Costs: Per Farm

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part time farm (minimum)</td>
<td>1000</td>
</tr>
<tr>
<td>Full time farm</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>$50,000 - 80,000</td>
</tr>
<tr>
<td>Used</td>
<td>$12,000 - 15,000</td>
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</tbody>
</table>

Production Costs: Per Acre

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural</td>
<td>$250 - 400</td>
</tr>
<tr>
<td>Harvest</td>
<td>$500 - 1200</td>
</tr>
</tbody>
</table>

TOTAL $750 - 1600

Annual Gross Income: Per Acre

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$2,000 - 10,000</td>
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</tbody>
</table>


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