



## GUIDELINES TO EVALUATE PEACHES FOR COMMERCIAL PLANTING IN THE SIERRA NEVADA FOOTHILLS

Maximum elevation: 3000 feet

Optimum elevation 1000-2500 feet

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

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

Acceptable drainage: Good

Acceptable soil depth:

Minimum - 2 feet

Optimum - 4 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 ground cover)

1000-1500=48 inches

1500-2000=44 inches

2000-2500=39 inches

2500-3000=36 inches

3000=3500=33 inches

3500-4000=31 inches

Add 10-15% for south, southwest

slopes. Subtract 10-15% cover crop.

Add 25-30% for extra heavy cover crop.

Add 20-30% to 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: 27°F at full bloom and 30°F small green fruits. Fruit set usually not problem as most peaches and nectarines are self-fertile (exception J.H. Hale). Ridge tops are especially desirable for peaches and nectarines to avoid frost and water drainage problems.

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Age:

To bearing - 3 years with 2 leader training  
Maximum bearing - 5 years with 2 leader training  
Prime bearing years - 3 to 20 years

Varieties (in order of maturity):

Peaches - (early) Firebrite, Flavortop;  
(mid season) Summer Grand, Red Gold, Fantasia;  
(late) Royal Giant, Flamekist, Fairlane.

Rootstock: Lovell peach seedlings, Nemagard peach seedlings on very well drained sites.

Number of trees per acre: 250 to 400. Plant 6 x 16 with 2 leader training or 8 to 10 x 16 x 18 with some leader training.

Irrigation methods:

Micro sprinkler  
Portable sprinkler  
Drip on nearly level ground

Yields:

Fair - 12 tons per acre  
Good - 15 tons per acre  
Excellent - 20 tons per acre

Major diseases: Peach leaf curl, shothole fungus, brown rot, blossom blast (*Pseudomonas syringae*).

Persistent insect pests: Peach twig borer, oriental fruit moth (lower elevations), flower thrips on nectarines.

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

Culture:

Training - 2 or 3 leader  
Weeds - 1.Cultivation followed by mowing.  
2.Strip spray weeds in row and mow row centers or plant perennial cover crop (dwarf strain of rye, fescue or orchard grass) in row centers in late spring with Roundup (where micro sprinkler or drip irrigation is practiced).  
Pruning - Maintain top height and keep open to sunlight penetration. Remove about 50% of new growth during dormant pruning. Summer pruning may be needed for early maturing varieties.  
Irrigation - Irrigate to 60 cenibars on tensiometer (18 inch depth) before harvest and 70-80 after harvest.  
Spraying - 3 to 5 applications per year. Could be more if springs are wet.

Establishment cost:	\$ Per Acre
Fencing	0 - 400
Trees	1000 - 1600
Irrigation System	500 - 1200
Materials	400 - 550
Labor	600 - 1000
Miscellaneous	50- 4 00
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	TOTAL \$2500-5100

Equipment costs:	\$ Per Farm
Part time farm (minimum)	1000
Full time farm	New 50,000-80,000 Used 12,000-15,000

Production Costs:	\$ Per Acre
Cultural	500-900
Harvest	700-1200
Overhead	?
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	TOTAL \$1200-2100

Annual Gross Income:	\$ Per Acre
	2400=6000

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