



GUIDELINES TO EVALUATE PEACHES AND NECTARINES 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, Shaver, 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 groundcover)

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% 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: 27°F at full bloom and 30°F small green fruits. Fruit set usually not a 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) Springcrest, Flavorcrest; (mid-season) Suncrest, Fay Elberta; (late) O'Henry, Cal Red, Fairtime.

Nectarines - (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 sprinklers
Portable sprinklers
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 pests 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 strains of rye, fescue or orchard grass) in row centers or treat 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 centibars 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 Costs:	<u>Per Acre</u>
Fencing	\$ 0 - 400
Trees	1000 - 1600
Irrigation System	500 - 1200
Materials	400 - 550
Labor	600 - 1000
Miscellaneous	50 - 400
TOTAL	\$ 2550 - 5100

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	500 - 900
Harvest	700 - 1200
Overhead	?
TOTAL	\$ 1200 - 2100

Annual Gross Income:	<u>Per Acre</u>
	\$ 2400 - 6000

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