



Sweet oranges

UC DAVIS
COLLEGE OF AGRICULTURAL
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About Sweet oranges

Sweet orange forms a small evergreen tree that grows up to 10 m tall. Bud initiation occurs in mid-summer with flower initiation in late spring. Fruit is ready for harvest from Mid-winter to late summer. There are usually two growth flushes per year.



Climate and soil

Temperature	Frost tolerance	Water needs	Tolerance to waterlogging	Drought tolerance
Grows best between 13 and 40°C	Severely damaged if actively growing	Approximately 850 mm	Poor	Fair – varies with rootstock

Humidity tolerance	Wind tolerance	Soil needs	Nutrient requirements
Fair – Can have disease problems in high humidity tropics	Fair	Prefers light textured well drained	(kg/tree) N: 0.4; P: 0.45; K: 0.25

Cultural practices

Propagation	Bud and graft scions to seedling root stock.
Rootstocks	Select rootstock based on cold tolerance first and disease resistance required locally.
Spacing	Typically planted on a 3-5 m square.
Training and Pruning	Can prune – especially to limit tree size. Remove deadwood and water shoots.
Thinning	Not usually done.
Tillage and orchard care	Keep surface between and around trees clean. Cover crops can be grown if adequate moisture.
Time to 1st harvest	Third season
Time to full production	8-12 seasons, but varies with climate, root stock and variety
Normal productive life	20-30 years
Expected yields	3-4 years: 2.5-5 t/ha 8-12 years: 20-40 t/ha
Harvest	Pick based on fruit sugar content and peel color development. Hand pick. Keep stem button connected to fruit to reduce rot
Storage	3-10 weeks if kept in cool and ventilated areas
Pests and diseases	Use root stocks to limit some diseases such as viruses Black aphid, scale, leaf roller, mealybugs, thrips, brown rot, root and collar rot

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Primary reference: Jackson, D.I. and Looney, N.E. 1999. Temperate and Subtropical Fruit Production. 2nd Ed. CABI Publishing. Wallingford (United Kingdom)

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