



# Sweet Oranges

## 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

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