



UNIVERSITÀ  
CATTOLICA  
del Sacro Cuore



PRODUZIONE DI CIBO APPROPRIATO: sufficiente, sicuro, sostenibile

## ORANGE (Fam. Rutaceae, *Citrus x sinensis* L., syn. Sweet Orange)

### PLANTING

Tropical and sub-tropical fruits plants are evergreen and they arrive from the nursery in container or with a root ball. So to planting out it is necessary prepare a hole with the soil broken up below and to the sides to allow root penetration. The hole may have the diameter double of the diameter of the container but at least about 60 cm width, 60 cm length and 60 cm depth, in this way plants should be planted at the same depth as they were in the container.

Generally it is beneficial to dig in a small amount well-rotted manure or granular fertilizer, below the root zone. Plants also benefit from organic compost being mixed with the soil above the layer with the fertilizer: in this way the roots are not in direct contact with its. Add water directly to the top of the root ball to ensure the roots are kept moist, while keeping the trunk as dry as feasible. And, finally, control that the graft is not covered by the soil (fig. 1).

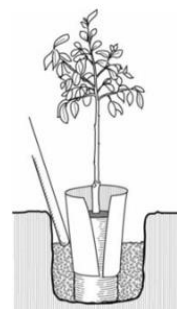


Fig. 1

### BEST LOCATION AND TREE SPACING

All species of *Citrus* grow best in sun and warm regions, but with some shade in hotter areas. They are not very wind tolerant and their best grown is in regions with no extremes of temperature.

Orange plant is a tree reaching 7-15 m of height with dense rounded crown (fig. 2). It is important space trees at 5-7 m apart and keep young plants well watered and weed free for the first few years.



Fig. 2

### PRUNING

*Citrus* plants are grown without excessive constraints or pruning: the foliage are leaving to develop in a natural way to form a globe canopy structure. But to obtain the globular shape it is necessary to trim the young plant at about 50 cm of height and keeping 3-4 branches from which the crown will develop (fig. 3). Other pruning actions are useful to thin the shoots to maintain a rational density of the canopy and to avoid biennial bearing. In addition, interventions may be required to remove low drooping branches and to eliminate diseased or damaged wood, but remember that larger wounds should be sprayed to prevent the entry of pathogens. It is important to notice that heavy pruning will remove the resources stored in leaves and can consequently reduce flowering and fruiting because *Citrus* trees are evergreen.



Fig. 3

### FRUITING BIOLOGY

Flowers are borne in short clusters, are most bisexual, though some are just male. They can bloom for most of the year, but mostly occur in spring. Pollination is due to insects, especially bees.

### FRUIT USES

Fruits are very aromatic, mostly oval but highly variable (fig. 4). Eaten fresh, with good shelf life, oranges are also used to obtain candied peel that are sun-dried or preserved in jars. They are also conserved in brine and the juice is used to prepare drinks. They have a high level of vitamin C and flavonoids.



Fig. 4