

Mor Late mandarin

Ownership

Cultivar rights of Mor mandarin belong to the Plant Protection Marketing Board of Israel. Mor mandarin is protected by the Plant Breeders' Rights Act, 1976 (as amended), and unlawful propagation is not permitted. PBR ZA20043009.

Origin and Use

Mor mandarin is an induced mutation of Murcott tangor from Israel. Consequently, the characteristics of Mor are similar to those of Murcott, with the exception that seed content of Mor is extremely low (0 - 2 seeds per fruit compared with 20 - 30 seeds per fruit in Murcott).

Therefore, Mor is essentially a seedless Murcott and cultural practices should be applied accordingly. Murcott is already known in the market, therefore advantage can be taken of this fact, with particular emphasis on seedlessness.

Mor 22: good selection.

Mor 25 & Mor 26 are superior selections due to very low seed content.

Vegetative Growth & Development

Mor trees are very vigorous, especially on high potential soils, with an upright growth habit similar to that of Murcott.

The Mor is compatible with Troyer and Carrizo. Due to the inherently high eating quality and the moderate bearing potential of Mor, vigorous rootstocks such as Volkameriana and rough lemon can also be used.

Reproductive Growth & Development

The Mor has low pollen viability and is self-compatible, setting a few seeds even when isolated from other pollen compatible cultivars.

Since Mor trees are vigorous, they are not heavy producers in the initial years of production, but do bear well when more mature.

Fruit are very firm. The harvest period of Mor is relatively short, about 4 weeks.

Mor is susceptible to *Alternaria* brown spot, similar to Murcott, but less so than Nova or Minneola.

Climatic Suitability

Production regions where *Alternaria* brown spot is known to occur should be avoided, as well as hot, arid production regions.

Key Characteristics

Since Mor mandarin is an induced mutation of Murcott tangor, the characteristics of Mor are similar to those of Murcott, with the exception that seed content of Mor is extremely low. Therefore, cultural practices for Mor should be applied accordingly.

Vegetative vigour needs to be controlled and managed from planting.

Attention to orchard layout is essential to avoid unwanted pollination and consequent seediness.

Forcing young trees into production will be necessary. Thereafter, crop manipulation will be less intensive than for other mandarin cultivars. Since Mor is susceptible to alternate bearing, crop load must be moderated to avoid overbearing.

Fruit splitting can occur and needs to be controlled.

Fruit can display characteristic Murcott-like ribbing on young trees or terminal fruit in older trees.



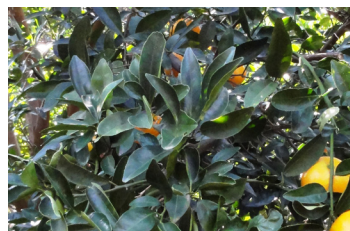
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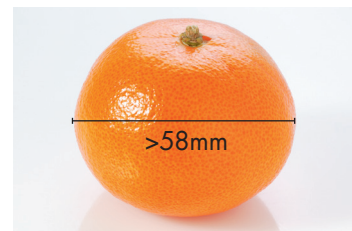
Tree with fruit



Florescence



Leaf shape



Fruit shape and size

Mor Late Mandarin: Technical information

Hybrid	Induced mutation of Murcott tangor from Israel
Origin	Israel
Ownership	Plant Protection Marketing Board of Israel
PBR registration	ZA20043009
Status	Commercial

Internal quality tests				
Test date	Juice %	Brix°	T.Acid %	Brix / TA Ratio
18.08.06	57	15	0.92	16.3:1
22.08.07	55	12.7	1.25	16.2:1
25.08.08	59	15.4	0.95	16.0:1

Optimum ripening date	Maturity is from end of July to mid August (mid to late February in the Northern Hemisphere) when internal quality and flavour are excellent.
Alternate bearing or other problems	Mor has a tendency for alternate bearing. The rind of Mor fruit is exceptionally thin, and fruit splitting (up to 30 % of fruit) and creasing are potential production problems.
Rootstocks used in evaluation	Carrizo citrange and rough lemon

Tree characteristics	Trees are very vigorous with an upright growth habit similar to that of Murcott, reaching 4 m by year 8. The top half of the tree comprises long, vigorous watershoots, whereas cropping occurs in the lower half of the tree.
Fruit size	Fruit size of Mor is very good, with nearly all fruit being calibre 2 and larger (>58mm diameter).
Fruit shape	Fruit shape is oblate, i.e. flat, but a high incidence of ribbing at the stem-end of fruit occurs.
External appearance	At maturity, rind colour is deep orange.
Internal appearance	Deep orange colour
Peelability	Fruit is easier to peel than a Nova reticulata
Seed	Extremely low seed content (0 - 2 seeds per fruit)
Flavour	Very high sugars (12 to 14 % TSS) and moderately high acidity (1.2 to 1.3 %), resulting in a well-balanced ratio and rich flavour.

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