

Sweet orange

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NSW DPI Citrus Team



Advantages

- ✓ fruit quality and yield
- ✓ blight tolerance
- ✓ cold tolerance
- ✓ suitable for all scion varieties

Disadvantages

- ✗ *Phytophthora* sensitive
- ✗ nematode sensitive
- ✗ might be intolerant of calcareous soils

Origin

Sweet orange has ancient origins. Various selections of sweet orange are in use as rootstocks. The Australian selection 'Parramatta' was selected at Parramatta NSW, following the devastating root and collar rot outbreak of 1860–1870. The selection 'Joppa' was introduced as seed from India in 1912, presumably being originally from Joppa, Palestine.

Tolerance to environmental and soil conditions

Grows well in most citrus production areas, with acceptable cold hardiness and salt

tolerance. Suitable for most soil types except those that have poor drainage or are highly calcareous. Susceptibility to *Phytophthora* is this rootstock's main pathogen limitation. However, it is one of the few rootstocks showing good tolerance to blight, citrus tristeza virus and exocortis viroid.

Field performance

Produces large trees that can be long-lived and productive. Trees are supported by an extensive root system. Generally not used in replant situations because of poor *Phytophthora* tolerance.

Nursery performance

Reasonably vigorous in the nursery and easy to bud. Sensitivity to *Phytophthora* requires a high level of nursery hygiene.

Fruit quality

Produces high quality fruit. Tends to have later maturity than some citranges but fruit quality is maintained on the tree for longer.

Scion compatibility

Highly compatible with all citrus varieties, resulting in a smooth bud union. Rare cases of 'self-cincturing' have been observed where seed was of uncertified origin.

Extent of plantings

Has declined in importance because of susceptibility to *Phytophthora* and resulting unsuitability for most replant situations. Still favoured by some growers.

Overseas experience

Has been a widely used rootstock in the past, but current usage is declining.

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