

Citrus Rootstock characteristics (CITTgroups July 2009)

Rootstock	Environmental conditions (tolerance)				Pest and disease tolerance				Tree size
	Drought	Salt	Calcium (alkalinity)	Poorly drained soil	Phytophthora tolerance	Tristeza tolerance	Exocortis tolerance	Citrus nematode	
P. trifoliata * +	low	low	low	high	high	high	low	high	small
Swingle citrumelo * +	average	average-high	low	average?	high	high	?	high	medium
Troyer citrange * +	high	average	low	average	high	high	low	average	medium to large
Carrizo citrange *	high	average	low	average	high	high	low	average	medium to large
Benton citrange	?	low	low	good	high	high	low?	average?	medium
Cleopatra mandarin +	average	high	high	low	low	high	high	low	large
Rough lemon * +	high	low	average	low	low	high	high	low	large
Sweet orange *	low	average	high	low	low	high	high	low	medium
Rangpur lime	high	high	high	?	low	high	?	low	large
C35 citrange +	?	low?	low?	?	high	high	low?	high	medium
Volkamerianna * +	high	average	high	low	low	high	high	low	large
Flying Dragon +	low?	low?	low?	high?	high?	high?	low?	high?	very small
Cox citrange +	?	?	?	?	high	?	?	?	medium
Yuma citrange +	?	?	?	?	?	?	?	?	?

Rootstock	External fruit appearance				Internal fruit qualities			
	Fruit size	Rind thickness	Rind texture	Albedo breakdown	Fruit maturity	Total Soluble Solids (sugar)	Acid content	Juice content
P. trifoliata * +	med-large	thin	smooth	severe	mid-late	high	high	high
Swingle citrumelo * +	med-large	thin	smooth	unknown	mid-late	high	high	high
Troyer citrange * +	medium	thin	smooth	mod-severe	mid	high	medium-high	high
Carrizo citrange *	medium	thin	smooth	mod-severe	mid	high	medium-high	high
Benton citrange	medium	thin-medium	smooth	unknown	mid	high	medium	medium-high
Cleopatra mandarin +	small-med	thin	medium	light	mid	medium	medium	medium-high
Rough lemon * +	large	thick	coarse	light	early	low	low	low-medium
Sweet orange *	medium	medium	medium	light	mid	medium	medium	medium
Rangpur lime	medium	medium	unknown	unknown	mid	low	low-medium	medium
C35 citrange +	medium	thin	smooth	mod-severe	mid	high	medium-high	high
Volkamerianna * +	-	thick	coarse	-	-	low	low	low
Flying Dragon +	small	-	-	-	-	good eating quality		
Cox citrange +	-	-	-	-	-	-	-	-
Yuma citrange +	-	-	-	-	-	-	-	-

* Rootstocks currently under evaluation at the West Gingin site, + Rootstocks currently under evaluation at the Bindoon site. ? unknown or conflicting data.
 Source: Australian Rootstock Factsheets and Rootstocks for Florida Citrus, W. S. Castle (1993)

Citrus Rootstock – Scion incompatibilities

Rootstock	Scion incompatibilities	Comments
P. trifoliata * +	Imperial mandarin (partially), Eureka lemon	
Swingle citrumelo * +	Eureka, Meyer and Yen Ben lemons, Imperial mandarin (partially)	Not compatible with most lemons
Troyer citrange * +	Imperial mandarin (partially), Eureka lemon, Satsuma mandarin	
Carrizo citrange *	Imperial mandarin (partially), Eureka lemon, Satsuma mandarin	
Benton citrange		Mainly used as a stock for Eureka Lemon. Difficult to manage and grow in the nursery
Cleopatra mandarin +		
Rough lemon * +	Some mandarins, Ellendale, tangor (can cause internal granulation and dryness in susceptible varieties)	
Sweet orange *		
Rangpur lime		
C35 citrange +	Eureka and Yen Ben lemons	
Volkamerianna * +	Can cause internal granulation and dryness in susceptible varieties such as Imperial	
Flying Dragon +	Performance of mandarins and lemons is less assured (it is likely to be incompatible with Eureka lemon).	
Cox citrange +	Unknown	Shows potential as a stock for Eureka Lemon. Easier to manage in the nursery than Benton.
Yuma citrange +	Unknown	

* Rootstocks currently under evaluation at the West Gingin site, + Rootstocks currently under evaluation at the Bindoon site



**Imperial with Valencia inter-stock
on Troyer Citrange**



Imperial on Troyer Citrange