

**Supplementary Table S2** The collection sites, geographical locations, characteristics and uses of the citrus species used in this study

Species	Common name/cultivar	Collection site	Geographical location	Characteristics	Uses	References
<i>C. australis</i>	Round lime	UQ glasshouse (originally purchased from Ross Evans Nursery, Kenmore, QLD)	Southeast Queensland, Australia	<ul style="list-style-type: none"> <li>• Globose (spherical) fruit</li> <li>• Resistant to HLB disease</li> <li>• Monoembryonic</li> </ul>	<ul style="list-style-type: none"> <li>• Hybridization purposes</li> <li>• Small commercial trade as food</li> </ul>	[1,2]
<i>C. garrawayi</i>	Mount White lime	UQ glasshouse (originally purchased from Ross Evans Nursery, Kenmore, QLD)	Cape York Peninsula, Australia	<ul style="list-style-type: none"> <li>• Shorter, thicker finger-shaped fruit</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding and selection purposes</li> </ul>	[3]
<i>C. inodora</i>	Russell River lime	Private residence at Bli Bli, Queensland	North-eastern Queensland, Australia	<ul style="list-style-type: none"> <li>• Large leaves</li> <li>• Lemon-shaped fruit</li> <li>• Paired spines at the leaf axils</li> <li>• Monoembryonic</li> </ul>	<ul style="list-style-type: none"> <li>• Potential rootstocks for conventional citrus</li> <li>• Citrus breeding</li> </ul>	[4,5]
<i>C. australasica</i>	Finger lime (five cultivars: cv 1-5)	Private residence at Bli Bli, Queensland	Northern New South Wales and south Queensland, Australia	<ul style="list-style-type: none"> <li>• Finger-shaped fruit with unique caviar-like pulp and skin colour variations</li> <li>• Tolerant/partial resistant to HLB</li> </ul>	<ul style="list-style-type: none"> <li>• As a commercial food</li> <li>• Develop hybrids with other citrus</li> </ul>	[5-8]
<i>C. glauca</i>	Desert lime	Private residence at Bli Bli, Queensland	Semi-arid regions of Queensland, South Australia, and New South Wales, Australia	<ul style="list-style-type: none"> <li>• Frost tolerant, boron tolerant, salt tolerant, HLB resistant</li> <li>• Very drought tolerant and able to withstand hot dry winds</li> <li>• Monoembryonic</li> </ul>	<ul style="list-style-type: none"> <li>• Citrus breeding work</li> <li>• Commercial trade for food and flavouring</li> </ul>	[2,9,10]
<i>C. sp. Unknown</i>	-	Private residence at Maroochy River, Queensland	Cape York Peninsula, Australia	<ul style="list-style-type: none"> <li>• Monoembryonic</li> <li>• Ellipsoid fruit</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding</li> <li>• Disease resistance</li> </ul>	Not available
<i>C. gracilis</i>	Kakadu lime/Humpty Doo lime	Litchfield, Darwin	Eucalypt savannah woodlands of Northern Territory, Australia	<ul style="list-style-type: none"> <li>• Leaves resemble Papua New Guinea species <i>C. wintersii</i>, but have spherical and larger fruits</li> <li>• It grows on gravelly and sandy soils</li> </ul>		[11]
<i>C. reticulata</i> admixture	Murcott	DAF, Bundaberg	Australia	<ul style="list-style-type: none"> <li>• Smooth skin, firm, large, high Brix</li> <li>• Good flavour</li> <li>• Seedy, polyembryonic</li> <li>• Late season maturity</li> <li>• High sensitivity to HLB</li> </ul>	<ul style="list-style-type: none"> <li>• Important export cultivar. As parents for breeding</li> </ul>	Data from DAF, Bundaberg, [12]
<i>C. reticulata</i> admixture	Ellendale	DAF, Bundaberg	Australia	<ul style="list-style-type: none"> <li>• Flesh with high Brix and high acid content</li> <li>• Large fruit with smooth skin</li> <li>• Fruit splitting and seediness</li> <li>• Monoembryonic</li> </ul>	<ul style="list-style-type: none"> <li>• Previously an important export cultivar. As parents for breeding</li> </ul>	Data from DAF, Bundaberg, [12]

<i>C. clementina</i> ( <i>C. reticulata</i> X <i>C. sinensis</i> )	Clemenules Clemetine mandarin	NCBI (SRR15840233)	Spain	<ul style="list-style-type: none"> <li>• Small fruit, thin skin, easy peeling</li> <li>• Self-incompatibility</li> </ul>	• As a commercial food	[13-15]
<i>C. aurantium</i>	Sour orange JDD	NCBI SRR9127838	Southeastern Asia	<ul style="list-style-type: none"> <li>• Tolerance to cold</li> <li>• Tolerance to foot rot</li> <li>• Highly susceptible to tristeza virus</li> <li>• Relatively low early yields</li> <li>• Good compatibility</li> <li>• Vigorous</li> <li>• High fruit quality</li> <li>• High early yields</li> <li>• Tolerance to salt</li> <li>• As rootstock it confers average fruit quality</li> <li>• Susceptible to Phytophthora</li> <li>• <b>Drought tolerant</b></li> </ul>	• As a rootstock	[16,17]
<i>C. limonia</i>	Rangpur lime	NCBI SRR6188467	Mediterranean, sub-tropical and inter-tropical climates	<ul style="list-style-type: none"> <li>• Ever-bearing habit</li> <li>• Ever blooming</li> <li>• Sensitive to mal secco disease</li> <li>• Fruits are medium in size, and have relatively low juice content</li> </ul>	• As a rootstock	[16,18]
<i>C. limon</i>	Lemon (Femminello Siracusano)	NCBI SRR14842606	Mediterranean, sub-tropical and inter-tropical climates	<ul style="list-style-type: none"> <li>• Ever-bearing habit</li> <li>• Ever blooming</li> <li>• Sensitive to mal secco disease</li> <li>• Fruits are medium in size, and have relatively low juice content</li> </ul>	• As a commercial food	[12,18]
<i>F. hindsii</i>	Hongkong kumquat	NCBI SRR8983314	China	<ul style="list-style-type: none"> <li>• Monoembryonic</li> <li>• Short juvenile phase</li> <li>• Small compact tree</li> </ul>	<ul style="list-style-type: none"> <li>• Ornamental purposes</li> <li>• Potential model species for research</li> </ul>	[19]
<i>C. micrantha</i>	Micrantha, Biasong	NCBI SRR6188461	Southern Philippines	<ul style="list-style-type: none"> <li>• Flowers are small with fewer number of stamens</li> <li>• Shrub to tree</li> <li>• HLB tolerant?</li> <li>• Cold tolerant</li> <li>• CTV and nematodes resistant</li> <li>• Tolerant to phytophthora</li> <li>• Deciduous</li> <li>• Three leaflets on each leaf</li> </ul>	• As a condiment, hair wash	[20]
<i>P. trifoliata</i>	trifoliate orange	NCBI Genebank accession no: MN102360	China	<ul style="list-style-type: none"> <li>• Shrub to tree</li> <li>• HLB tolerant?</li> <li>• Cold tolerant</li> <li>• CTV and nematodes resistant</li> <li>• Tolerant to phytophthora</li> <li>• Deciduous</li> <li>• Three leaflets on each leaf</li> </ul>	<ul style="list-style-type: none"> <li>• Used in folk medicine</li> <li>• As a rootstock</li> </ul>	[21]

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