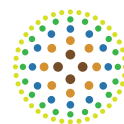


focus on

DESERT LIME

Citrus glauca



RURAL
INDUSTRIES

Research & Development
Corporation

Part of an R&D program managed by the Rural Industries Research and Development Corporation



Overview

Desert lime is one of several Australian natives that are true citrus, and is also known as bush lime, wild lime and native cumquat.

It is endemic to the semi-arid regions of south west Queensland, western New South Wales and South Australia.

The fruit is small, round and green, about the size of a small grape, with a very distinctive piquant lime flavour.

Desert lime is one of the foods traditionally collected by Indigenous Australians.

The explorer Ludwig Leichhardt wrote about the trees and eating the fruit in 1844 during his journey through Central Queensland and the Northern Territory.

British colonists in New South Wales made jams, tarts, jellies and preserves, as well as an agreeable beverage. Native lime recipes were published in cookbooks as early as 1898.

Desert lime has high levels of vitamin C, folate and antioxidants.

Source: Health Benefits of Australian Native Foods

The natural distribution of desert lime is in the semi-arid regions in eastern Australia. This extends from Rockhampton to Winton in Queensland, south to Dubbo in central New South Wales, and west to Quorn in the Flinders ranges of South Australia.

It grows naturally in inland woodlands and brigalow scrubs in a range of soil types and is tolerant of heat, frost, drought and salinity. Desert lime can withstand extreme temperature conditions from minus 4° C to 45° C.

Until recently, most native citrus supplies have come from wild harvest, which has constrained industry expansion as annual yields are highly variable.

A commercial industry based on desert lime was established in the early 1990s, reducing the need to collect limes from the wild, improving the reliability of supply and minimising any detrimental impact on wild populations.

In 2011, the desert lime harvest was estimated at 10 tonnes plantation grown, with severe and widespread drought having a significant impact on wild harvest.

Desert lime is over supplied for the small boutique markets the industry has agreed to supply. However, new contracts are expected to see the industry double annual production to meet the increased demand.

Growing conditions

Desert lime is currently being grown commercially in Townsville and from Winton through to Roma in Queensland, in western New South Wales, Victoria and into Port Augusta in South Australia.

Commercially, grafting is the best way to grow desert limes, as maturity to fruiting age of wild trees is around 10 years. Grafted trees begin bearing fruit within three years

Plantation-grown trees have been shown to respond well to both irrigation and fertiliser.

Harvesting

Desert lime flower-to-fruiting time is the shortest of any citrus species, taking only 10-12 weeks. It flowers mainly in spring and fruits ripen in early summer.

The fruit is ripe when the colour changes from green to yellow, although it can be picked when still green.

Harvest is carried out by hand but there is potential for mechanical harvesting of manufacturing product, which is most of the industry's output.

Storage

Desert lime can be consumed immediately after the fruit has been picked, and if not should be refrigerated almost immediately. It can be stored in the fridge for 3-4 days.

The fruit is well suited for freezing as it retains form and flavour very well when thawed and can be stored frozen for long periods.

Premium grades are sold in a frozen whole form. Medium and large blemish-free fruit is sold to chefs and restaurants, who use them whole, sometimes preserved in syrup. Small and second quality desert limes usually processed into puree.

Desert lime can also be stored as a dried powder.

Food uses

Desert lime has a distinct lime flavour but with that unique difference found in native foods, and can be used in any product or process where 'normal' limes are used. This includes traditional jams and preserves, cordial and cider. Desert lime powder is gaining a place as an attractive additive in herb and spice mixes and as a coating for nuts such as macadamias.

It has a very thin rind which is virtually tasteless, is often seedless and can be used whole in cooking, making it an extremely versatile and excellent processing and culinary fruit.

The industry is on the cusp of transition from niche to commercial production, with the future appearing to lie in the provision of reasonably priced puree for use in gourmet manufactured products.

Intensely flavoured desert limes require only a fraction of the volume of other limes. Consequently manufacturers can afford to pay a premium for the cachet of a native, 'desert' fruit.

Health benefits

Desert lime is a very rich source of calcium and contains high levels of Vitamin C, folate (Vitamin B9), Vitamin E and lutein (a compound that plays an important role in eye health and wellbeing).

It also has a high potassium:sodium ratio, which may help to reduce blood pressure.

Other uses

In more recent years the desert lime has been incorporated into cosmetic uses such as hand lotion.



Freshly picked desert limes

NUTRITIONAL INFORMATION

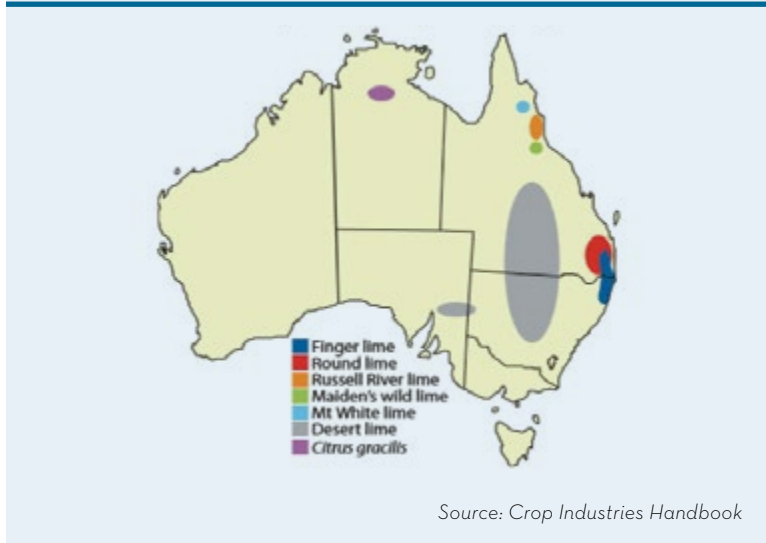
<i>(per 100g frozen puree)</i>		<i>(per 100 grams dry weight)</i>	
Energy	198 Kj	Zinc (Zn)	1.060 mg
H2O	-	Magnesium (Mg)	94.5 mg
Protein	0.1 g	Calcium (ca)	384.2 mg
Total fat	2.7 g	Iron (Fe)	4.74 mg
Total saturated fatty acids	1.0 g	Selenium (Se)	0.0
Carbohydrates	4.0 g	Phosphorus (P)	127.8 mg
Sugar (total)	4.0 g	Sodium (Na)	2.24 mg
Fibre	-	Potassium (K)	1287.8 mg
		Manganese (Mn)	0.8775 mg
		Copper (Cu)	0.641 mg
		Molybdenum (Mo)	17.7 µg
		K : Na	574.9

FLAVOUR PROFILE

“
...A brown lime citrus aroma
with some pickled notes,
stewed fruits and cut grass...”

Distinctive **piquant lime**
flavour and refreshing taste...

GROWING REGIONS



Desert lime tree



For more information

This fact sheet is one of a series summarising Native Foods R&D from 2007 to 2012. In a partnership between government and industry, the Rural Industries Research and Development Corporation (RIRDC) and Australian Native Food Industry Limited (ANFIL) are working towards an innovative, profitable and sustainable Native Foods industry.

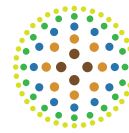


Australian Native Food Industry Limited (ANFIL) was formed in 2006 and is the peak national body which represents all interests in the rapidly growing Australian native food industry. ANFIL has taken the lead in working with industry, governments and other organisations to determine and prioritise research and market development strategies to progress the industry.

web: www.anfil.org.au
email: info@anfil.org.au

Australian Native Food Industry Ltd
3866 Channel Highway
Woodbridge Tasmania 7162
Australia

Disclaimer: Whilst every care has been taken in preparing this article, neither RIRDC nor the authors accept any responsibility or liability for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained in this article. Readers should make their own detailed inquiries and obtain professional advice before making any commercial decisions based on information contained in this article.



RURAL INDUSTRIES
Research & Development Corporation

The Rural Industries Research & Development Corporation (RIRDC) is a statutory authority established to work with industry to invest in research and development for a more profitable, sustainable and dynamic rural sector.

Rural Industries Research & Development Corporation
Phone: 02 6271 4100
email: rirdc@rirdc.gov.au
web: www.rirdc.gov.au

ISBN: 978-1-74254-728-5
Pub. No. 14/113