Jujubes in Western Australia – a growing industry
Jujube (*Ziziphus jujuba* Mill.) trees have grown successfully in Australia for over 20 years and the industry is growing steadily.

The jujube is one of the most important fruit crops in China and has been commonly used as a traditional medicine and food for thousands of years.

Jujube fruit is very nutritious – it is a rich source of vitamins and minerals and is high in antioxidants. Jujubes are eaten fresh, dried or processed and used in breads, cake, candy, compote, chutney, pastes, purees, syrups and jam. In China, the dried fruit is often cooked in porridge or broths and it is a vital food for many traditional festivals.

**The WA Jujube industry**

Due to the adaptability of the tree to different soil types and climates jujubes are grown across a vast area of Western Australia. Jujubes are currently grown in the South West, Perth Hills, South Coast, Mid-West and the Wheatbelt region (Figure 1).

Rainfall in these areas ranges from 200–1000mm annually. Drip or mini-sprinkler irrigation systems are used with the amount of water applied varying depending on the local climate and soil types. Jujubes are grown on a range of soil types in WA including, loam, clay, sandy loam, duplex and gravels.

Western Australia is currently leading jujube production in Australia with around 40 growers with an estimated 12 500 fruit bearing and rootstock trees, on 20 hectares, producing around 25 tonnes of fresh fruit. The majority of commercial orchards are less than 5 years old, with many yet to produce, hence the low production at present.

**Figure 1** Current growing location of jujubes in Western Australia
Jujubes in Western Australia – a growing industry

Around 3000 new trees are being planted each year. In the eastern states jujubes are currently grown in Griffith and Goulburn in New South Wales, McLaren Flat in South Australia and Mildura in Victoria. The jujube’s drought and salinity tolerance and multiple uses indicate great potential for many areas of WA and other areas of Australia.

Global jujube market

While jujubes are grown in nearly 50 countries, China makes up over 90% of the world production. Jujube production has developed at a rapid pace over the past 30 years in China. Its annual production has increased more than 15 times from 1980 to 2015 from 376,000 tonnes to over seven million tonnes. Most of this is consumed domestically with only dried or processed product exported.

Ninety per cent of this production is concentrated in six Northern provinces: Hebei, Xinjiang, Shandong, Shanxi, Shaanxi, and Henan. The current total growing area in China is approximately 2 million hectares.

Australian domestic market

Jujubes are mostly sold as a fresh fruit in the Australian market, mainly at speciality stores, independent supermarkets and farmers markets. Most growers are focussing on fresh fruit production with dried fruit as a way to utilise their second grade fruit.

Average wholesale price of fresh jujubes in 2015 was $8.80 per kilogram. Average retail price at small retailers and farmers markets was $13.80/kg but prices range from $8–20 per kilogram. Prices for locally grown dried jujubes range from $25-45/kg.

Growers currently focus on their local markets as demand continues to outweigh supply.

Availability

Fresh WA grown jujubes are available from February to May.

Around 15 varieties of Chinese jujubes are grown in Australia including Li, Chico, Don Polenski, GA866, Suimen, Thornless, Lang, Silverhill, Sherwood, Shanxi-Li, Redlands, Admiral Wilkes, Honeyjar and Sihong.

The main varieties grown for fresh consumption in WA are Li and Chico while Suimen and Tarjan are popular for dried and processed products.

Main jujube varieties grown in WA

<table>
<thead>
<tr>
<th>Variety</th>
<th>Shape and size</th>
<th>Maturity</th>
<th>Fresh</th>
<th>Dried</th>
<th>Processed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li</td>
<td>Large, oval</td>
<td>Mid-late</td>
<td>✓✓✓</td>
<td>✓✓</td>
<td>✓✓</td>
</tr>
<tr>
<td>Chico</td>
<td>Round but flattened</td>
<td>Early-mid</td>
<td>✓✓✓</td>
<td>✓✓</td>
<td>✓✓</td>
</tr>
<tr>
<td>Suimen</td>
<td>Elongated</td>
<td>Mid-late</td>
<td>✓✓</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Tarjan</td>
<td>Large, pear-shaped</td>
<td>Mid-late</td>
<td>✓</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
</tr>
</tbody>
</table>

Figure 2 Chico, Li and Suimen varieties
**Competitive advantage**

Counter seasonal production gives Australia a competitive advantage in supplying jujubes to South East Asia. There is an opportunity to market product for the increasing demand, especially during festivals. Target markets include China, Singapore, Malaysia, Hong Kong and Taiwan.

Western Australia is free from many jujube pests and diseases giving producers an advantage of being able to produce quality jujubes with minimal chemical use. Growers in Western Australia recognise that quality is the key to a successful industry.

**Industry support**

The WA Jujube Growers Association Inc. is the representative industry body of jujube growers, formed to strengthen and grow the industry in Western Australia. Its aim is to work with industry and government bodies to implement consistency in all aspects of jujube production and marketing.

The association is working to:

- Increase the sustainability and profitability of jujube growers through improvements in production techniques and access to new varieties and technologies
- Increase consumer awareness of the health benefits of jujubes
- Develop supply chains for existing and new markets
- Obtain funding to resource industry development.

**For further information**

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