

Faba bean (irrigated) marketing guide

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Australian faba bean industry

Faba bean is a temperate pulse crop, predominately grown in the southern regions of Australia.

The grain is primarily targeted at the high value human consumption export market and secondary for the domestic feed and aquaculture markets that utilise's its' high protein, starch and fibre content.



Image 1:

Faba beans grown on irrigation

Photo: T. Bray, formerly Pulse Australia

There is increased confidence in faba bean production in both irrigation and dryland cropping areas of Australia.

This has been driven by greater profitability resulting from;

- the release of improved varieties with;
 - improved regional adaptation
 - higher yield potentials
 - greater disease resistance
- improved farming systems
- better crop management
- improved irrigation layouts



Image 2:

Faba beans grown on irrigation

Photo: Matt Tubb and Sam Armytage, Conargo

Australian faba bean production

Faba bean first became a significant pulse crop in Australia during the early 1980's. Despite early setbacks with disease management issues the area of production has steadily grown over the last 10 years with production peaks of approx. 200,000 hectares (Figure 1).

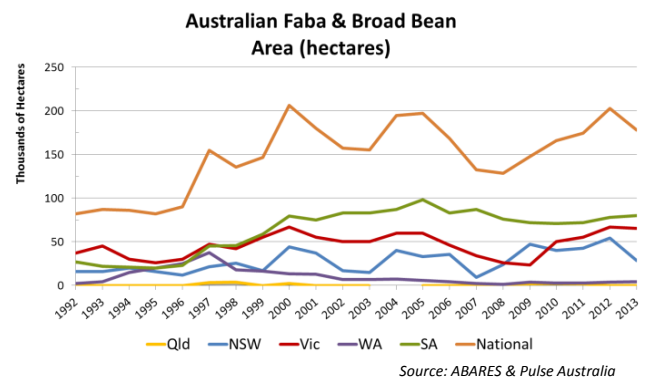


Figure 1:

Area sown ('000 ha's) of faba bean by state

Irrigated faba bean production

In 1987 several hundred hectares were grown under irrigation around Griffith and Coleambally. However, the foliar diseases chocolate spot and ascochyta blight severely reduced yields.

In 1991 faba beans returned to irrigation areas and a dry spring favoured yields of up to 6.2 t/ha. Excellent returns from those crops encouraged expansion of the faba bean area in the Murrumbidgee Valley to exceed 5,000 hectares in 1992. A record wet spring resulted in severe foliar disease problems. Average yields fell from 4.0 t/ha in 1991 to 2.5 t/ha in 1992.

There is potential in southern NSW for approximately 19,000 hectares, producing an estimated 57,000 tonnes in the Murrumbidgee (10,000 ha) and Murray (9,000 ha) Valleys with a conservative yield estimate of 3.0 t/ha.

The largest production year in southern NSW irrigation areas was in 2005 with 10,000 hectares producing 36,000 tonnes. In other years little or no faba bean has been produced in these regions.

This variability is typical of irrigated crops, with growers favouring crops with the greatest profit potential.

Average yield for faba bean varies greatly depending on climatic and environmental conditions. However, under irrigation and with good management growers can consistently achieve yields of 4.0 – 5.0 t/ha, well above the dryland average of 1.5 t/ha (Figure 2).

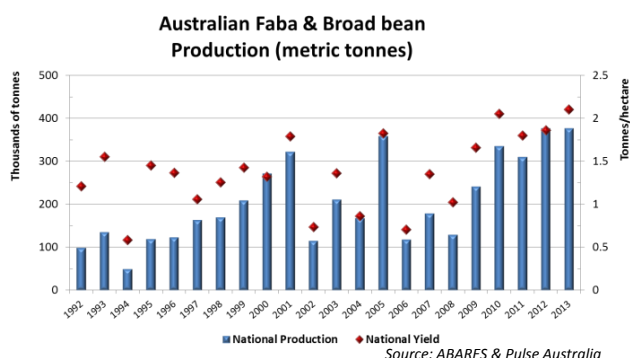


Figure 2: Faba bean production ('000 t's) and average yield (t/ha)

There is now greater production in northern Victoria (e.g. Kerang, Congupna, Numurkah) due to a combination of factors; including water availability, higher rainfall in recent years and improved management practices.

However, local buyers prefer to source faba bean from the southern irrigation areas, to save on freight costs and obtain consistent quality (compared to southern dryland areas).

There are 2 major regional buyers who operate in the southern irrigation areas – UniGrain Pty Ltd (Murray Valley) and Croker Grain (Murrumbidgee Valley).

Both companies have developed stable markets for processing (split faba bean for canning in the Middle East/Asia) and have the capacity to offer local receival storage. Croker Grain has also established regular use of faba bean by fish meal manufacturers.

At the time of printing Croker Grain, UniGrain and GrainCorp were actively pursuing grain storage sites for faba bean growers across southern NSW and the irrigated areas of northern Victoria.

Australian faba bean price drivers

Globally, there is often a premium paid for Australian faba bean, reflective of its high grain quality in terms of grain size, colour and lower physical damage. French faba bean receive a small price discount and faba bean from the United Kingdom are generally the cheapest source for the Middle Eastern market.

Faba bean will always be purchased locally on quality i.e. price will be based on No. 1 quality grade. Discounts, on a per tonne bases, apply to each reduction in grade. There is a priority to sell faba bean into the human food market where market prices can rise sharply when quality faba bean is scarce globally.

Average price for faba bean has fluctuated around \$300/t delivered Adelaide over the past 14 years (Figure 4), peaking in recent years (2012 and 2013) above high drought driven prices experienced during 2006 and 2007.

Price is the major driver for southern Australian irrigated faba bean growers to switch from other winter alternatives such as wheat and canola. Growers have indicated an on-farm price of \$400/t is required to be competitive with wheat at \$250/t.

A faba bean price of \$400/t has only occurred in 4 out of the last 14 years (Figure 4).

Growers need to consider the rotational benefits, including cereal root disease breaks and the amount of nitrogen fixed by a faba bean crop as part of their decision making processes.

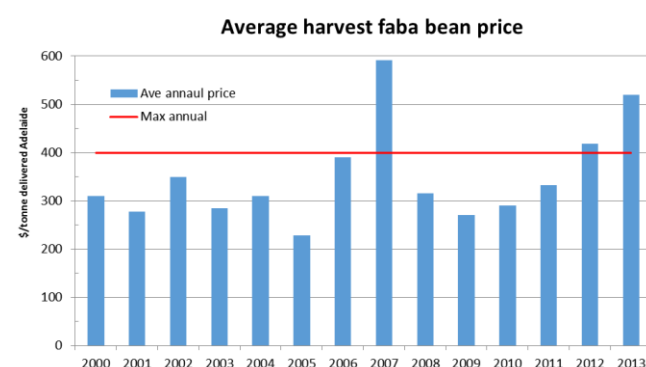


Figure 3: Average harvest faba bean prices delivered Adelaide. Source: Profarmer Statistics and Pulse Australia.

Australian faba bean export market

Australia exports 80% of its production to high value human consumption markets (Figure 4).

These markets consist of:

- whole bean,
- canned,
- split and /or milled for flour.

Hence, high attention and emphasis is placed on grain quality in order to ensure export market access.

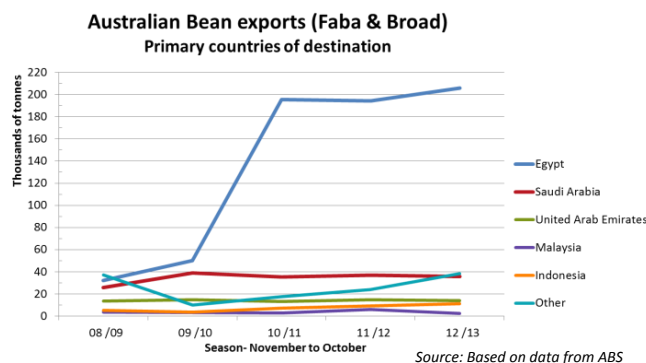


Figure 4: Countries Australia export faba beans to ('000 t)

Egypt is the largest buyer of Australian faba bean, importing 500,000 - 550,000 tonnes per annum. It is supplied by Australian, French and the United Kingdom in almost equal proportions.

Saudi Arabia is the next most significant market, representing 11% of Australian faba bean exports, closely followed by the United Arab Emirates 5% and Indonesia 4% (Figure 4).

Egyptian demand is expected to remain relatively constant in the future. However, the price and quality of faba bean from both the United Kingdom and France will affect demand for Australian faba bean.

Faba bean for stock and aquaculture feed

Faba bean not sold for human consumption is used by the Australian stockfeed industry, priced on a least cost ration basis. This grain is normally of a lower grade (discoloured) and/or damaged by insect or disease.

Improved grain prices generally occur in years of drought when a grower can sell grain into a rising stockfeed market that is under pressure to find alternative sources.

Growers need to be prepared to store grain on farm for an extended period of time to allow access to the stockfeed market.

Vegetable protein is a better and more sustainable long-term alternative to fish protein meal in aquaculture rations. Processors sell milled product to aquaculture feed manufacturers. Faba bean starch substitutes for wheat starch in the ration to hold the pellet together with the added advantage of increasing the protein level.

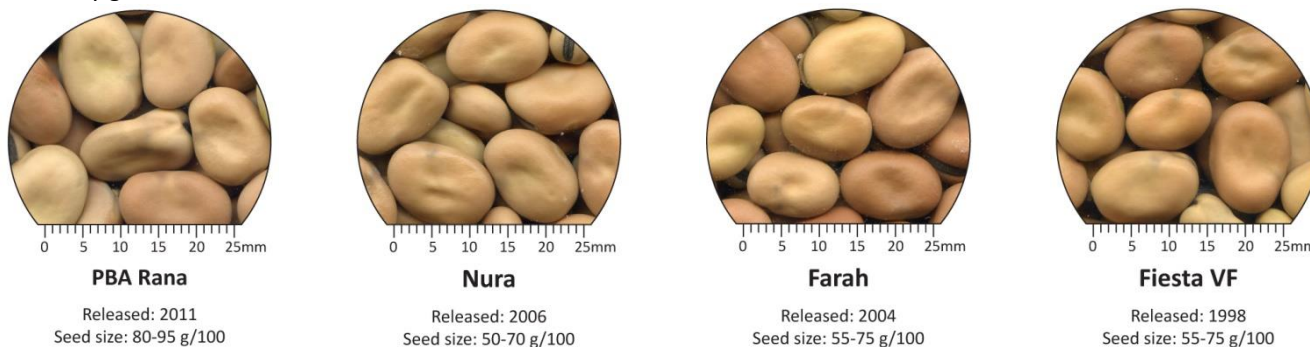
Aquaculture feed manufacturers require grain to be supplied in 12-week cycles. Faba bean does not substitute for lupin which is required for higher protein content. Normally manufacturers use up to 25% of pulses in diets; lupin is used at 10% and faba bean at 15%. Inclusion of faba bean in fish feed pellets slows the pellet's speed through the water, increasing the time the pellets are available for fish feeding.

Faba bean quality requirements

Quality parameters for the high value human consumption markets are centred on grain shape, uniformity of size and colour, as well as texture.

Image 4:

Commonly grown faba bean varieties



Receival Standards

The Australian faba bean receival standards are set by the Australian pulse industry and published by Pulse Australia.

Standards are an essential tool for anyone purchasing, selling, trading, brokering or operating in the commercial grains industry including growers.

A series of 'Visual quality charts' has been developed for use in conjunction with the faba bean standards, as an aid applying the standards.

Copies of the standards and visual quality charts are available on the Pulse Australia web site:

www.pulseaus.com.au/receival_and_trading_standards.aspx

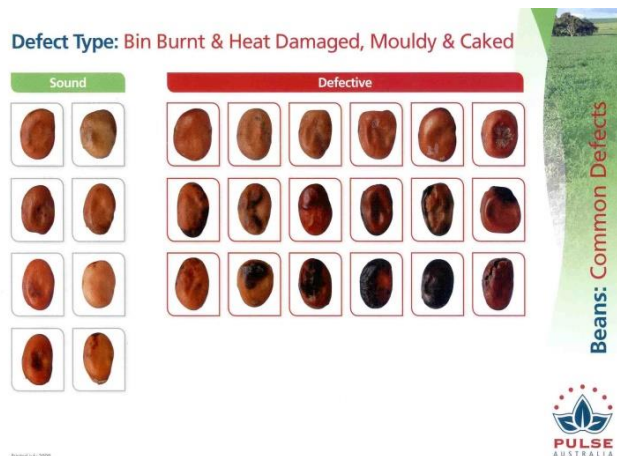


Image 3:

Visual quality chart – faba bean (set of 3 available)

Export standards are the basis for trade. It is understood that 'Minimum faba bean receival standards' for Australia may not suit seasonal issues or the requirements of some buyers. Suitable qualification to any standard can be made as agreed between all parties concerned to represent the basis for better quality consignments.

It should also be understood that these are Australian industry standards and do not take into account specific overseas country quarantine restrictions (such as prohibited weeds, seeds, disease status or contaminate levels) or the requirements of the *Export Control Act (1982)* and its subordinate legislation.

Buyers of faba bean from the southern irrigation regions of Australia

Australian Grain Export

12 Robert Street
Maitland, SA 5573
Ph: 08 8832 2800
www.australiangrainexport.com.au

Australian Milling Group

47 Golf Course Road
PO Box 838
Horsham VIC 3400
Ph: 03 53824 908
www.aumg.com.au

Croker Grain

Lyne Street
Marrar. NSW 2652
Ph: 02 6934 4000
www.crockergrain.com.au

Glencore Grain

Level 8
484 St Kilda Road
Melbourne VIC 3004
Ph: 03 9864 2000
www.glencoregrain.com.au

GrainCorp

Level 26/ 175
Liverpool Street
Sydney. NSW 2000
Ph: 02 93259 100
www.graincorp.com.au

Louis Dreyfus Commodities Australia Pty Ltd

Level 2, 650 Chapel Street
South Yarra, Victoria 3141
PO Box 445
South Yarra VIC 3141
Ph: 03 982 8611
www.louisdreyfus.com.au

Market Check

Suite 2C, Level 2 Gordon Centre
802-809 Pacific Highway
Gordon NSW 2072
Ph: 02 9499 4199
www.marketcheck.com.au

PeaGrowers Co-op Pty Ltd

Mills Street
Donald VIC 3480
Ph: 03 5497 1766

The Wimmera Grain Company

1 Edward Street
PO Box 92
Rupanyup VIC 3388
Ph: 03 5385 5344
www.wimmeragrains.com.au

UniGrain PTY LTD

3722 Creswick /Newstead Rd
Smeaton. VIC 3644
Ph: 03 5445 6224
www.unigrain.com.au

Note: Not all Australian faba bean buyers are listed. Also those that are listed may not buy out of the irrigated regions of NSW and VIC.

References and further reading

Irrigated Faba Beans – A profitable break crop for irrigators in southern regions.
(GRDC Final Report 2014) NSW DPI

Australian Pulse Crop Forecast & Market News
www.pulseau.com.au/CropForecastMarketNews.aspx

Australian Crop Report
www.daff.gov.au/abares

Australian Pulse Trading Standards
www.pulseaus.com.au/receival

Acknowledgements

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Department of
Primary Industries



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