

Australian Oilseeds Federation Strategic Plan 2010



**Australian Oilseed Industry Review 2015
AOF Plan 2010**



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Executive summary

Our strategic approach

In a shifting global environment and with the emergence of significant new markets, the Australian Oilseeds Industry stands on the cusp of a new era of growth and development.

An era not led by increased production per se, but one geared more towards consumer preference through value added in production, quality and reliability.

This Oilseed Industry Plan is driven by this changing market view and is prepared against the background of developments in global and domestic food and feed sectors. It takes account of the impacts on demand from traditional food and emerging non-food uses and the changing supply base.

Priorities have been developed with regard to:

- The diverse requirements of domestic and export markets
- Likely directions that will be taken by oilseed industry stakeholders
- Diversity of regional production, crops and products
- Performance and potential already established by the industry

AOF vision

The industry plan guides AOF strategic direction and offers great opportunity for our industry, and the nation, to capitalise on its potential. The AOF vision is set within this context:

AOF is the peak industry body for the Australian oilseeds value chain in both domestic and global arenas embracing consumers of food, feed, health and industrial products.

As such, the key areas where AOF will invest to support the industry's plan are:

- Stronger and recognised voice
- Innovation
- Market and product development
- Grower capacity
- Industry capacity and influence

A cohesive industry

The benefits of a cohesive industry working towards a common goal across a range of key areas are many.

United by its vision of the future, the industry's voice will be multiplied with Government, industry bodies and industry participants and aid in encouraging their contribution to issues that are important to our development and growth.

The plan is also strongly focused on knowledge generation and innovation as a means to increasing industry value.

A major thrust critical to competitiveness is improving production performance across the entire value chain.

A thorough understanding of the demands and requirements of our customers, and ensuring our supply chain is globally and locally aligned to these demands, will substantially improve total value and profitability.

This anticipates that the industry's future is in moving from a commodity to product-driven focus and underlines the necessity for a larger and more sustainable production base to underpin growth.

Improved production at farm level will drive increased investment in processing, import replacement and export activities and enhance the industry's value and contribution to the nation's prosperity.

Plan objectives

The Plan outlines initiatives to ensure that AOF is in the best possible position to assist the industry in delivering its vision and objectives.

The Plan builds on the solid foundations of the past two decades in planning and growth and on increasing the value and size of the industry.

That foundation guides a number of objectives fundamental to the industry's future growth:

- Support development of grower capacity through improved and new varieties, crop protection, management practices and extension activities, to secure the industry's long term position in domestic and export markets
- Foster the ongoing uptake of innovation across the industry, investment in product development and ensure the industry has access to all appropriate technologies
- Improve the image, availability and position of Australian oilseeds and oilseed products among domestic and export consumers
- Foster the continued adaptation of the value chain to deliver improved competitiveness and higher value
- Develop a stronger industry voice

A prosperous outlook

The wholesale value of the industry's output is estimated at \$2.5 billion annually. Achievable productivity, quality, product mix and value chain efficiency gains can grow this to \$3.3 billion by 2015.

As always, the AOF will support and assist the industry's growth and development in achieving this potential.

Oilseed industry review 2015



Staying at the forefront

This industry review and plan for AOF is aimed at ensuring that the industry continues its growth and can create value for all in the oilseed industry.

Over the past two decades, AOF has been at the forefront of driving industry direction and facilitating industry development to support growth of the oilseed industry. The results have been impressive. However, in recent years, adverse seasonal conditions and under-investment in crop genetics and practices has seen production fall away in all of Australia's oilseed crops.

Continued investment by the processing and marketing sectors, and a strong focus on reducing costs to stay competitive, have seen a strong platform established for developing value added products in the oilseed industry.

The AOF's domain is in assisting Australia's premium, natural soft oils sector in an ongoing effort focused on positioning these products positively in the minds of consumers. The focus on health and nutrition provides a basis for this effort which is also a challenge, given the current health environment and associated health concerns. The major opportunity for Australia's healthy natural oils exists in the food service and commercial sectors, with retail markets being impacted by the power of supermarkets, private labels and imports.

The livestock industry continues to be a major contributor to the industry with its increasing demand for high value protein products. The rapid growth in this industry, the increasing focus on quality and natural ingredients and the ability to improve consistency and integrity of products provides a solid foundation for growth.

The industry has also grown exports of seed and oil and changing dynamics in the global marketplace are providing further opportunities. Again, Australia has positioned itself as a high quality supplier of premium products.

The industry does, however, face many challenges in staying at the forefront and delivering on the opportunities.

The Australian oilseed industry is diverse, comprising multiple products and markets. The industry has traditionally been focused on the edible oil products industry with associated by-products, but today its constituents also cover a range of valuable food markets. Products including soy, sunflower and linseed are used in a range of Asian foods, bakery products, dairy alternatives, snacks and other foods.

Despite this diversity, there are a number of common platforms that will drive growth across all sectors.

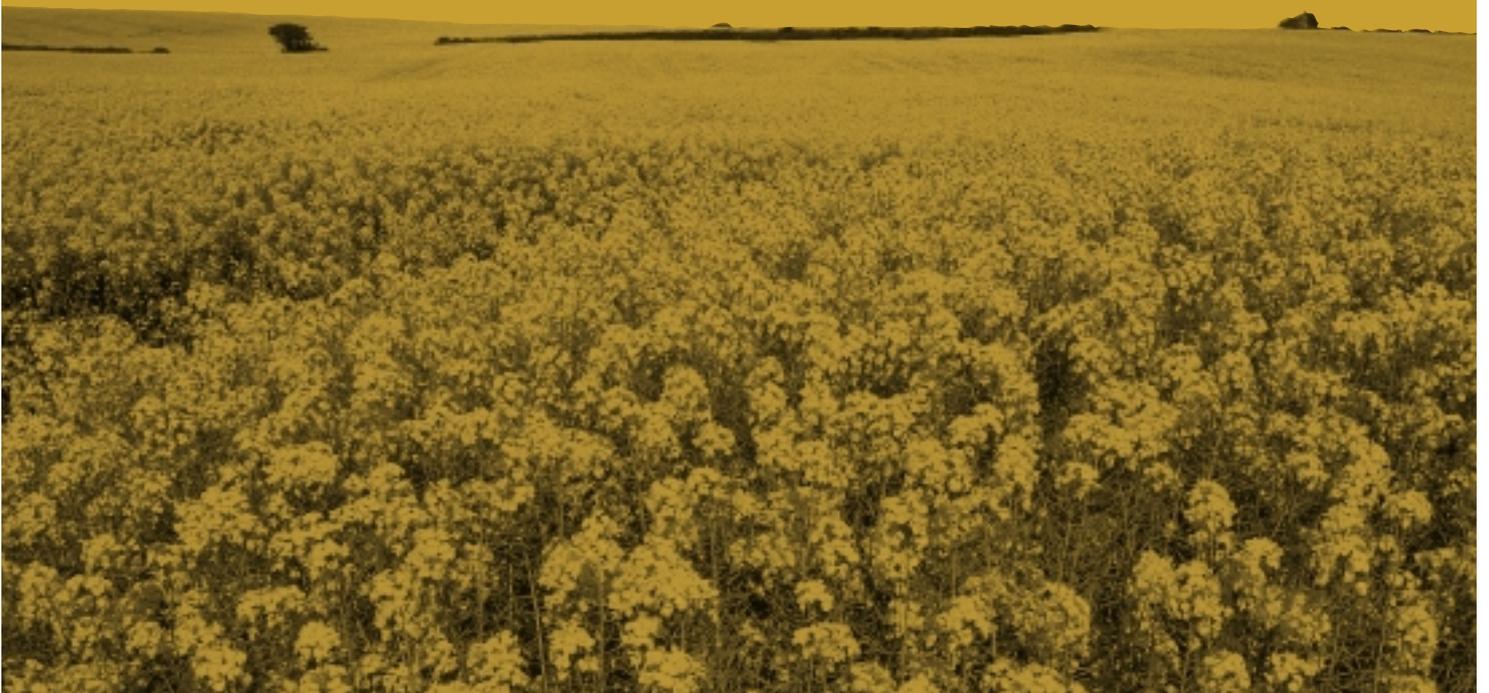
The **Industry Review** looks at the opportunities and challenges for the industry in the context of the global oilseed market. It provides a vision for the industry in 2015 that all of the industry can use to shape its investments and involvement in the industry over the next decade.

The **AOF Plan** outlines the roles and activities of AOF within the context of the industry globally and domestically. The AOF cannot deliver the industry vision, but it can assist the industry in shaping its environment and ensuring that it is best positioned to capture opportunities and achieve its vision.

Characteristics of the Australian oilseed industry

- The Australian oilseed industry has grown over three decades from infancy to a major national agribusiness, with a high value added component.
- Seed, oil, meal and other value-added products are sold to established and emerging markets locally and overseas.
- An efficient chain of production, processing, distribution and marketing is in place.
- Organisations from family farms to large multinationals operate in, and derive income from, the industry.
- The Australian Oilseeds Federation is the umbrella organisation for the oilseeds industry.

Factors shaping the oilseed environment towards 2015

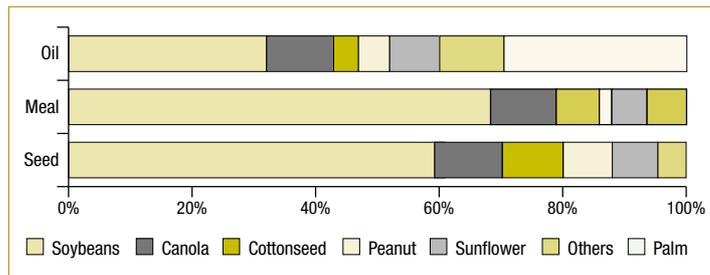


Global demand is likely to drive a supply challenge in coming decades

Situation

Oilseeds are a large and important component of the food industry. Its products are major ingredients in the food and feed value chains and underpin a very large global business. Soybeans dominate the oilseed and meal business, while palm dominates the oil business.

Share of oil, meal and seed by commodity



Source: Oil World.

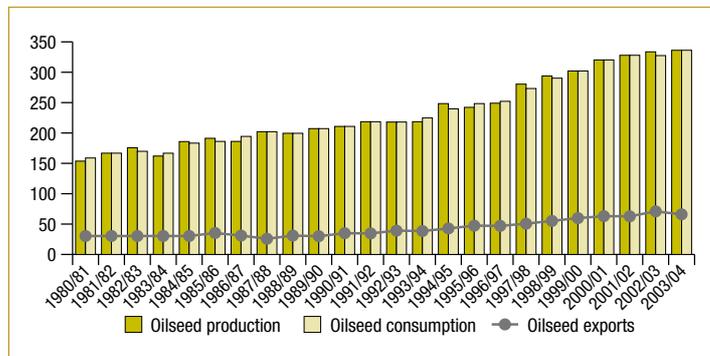
World oilseed production has increased from around 140 million tonnes in the mid-1980s to an estimated 360 million tonnes in 2004/05, an increase of more than 250% and is projected to increase to 466 million tonnes by 2020. Over the same period, world oils and fats production has more or less doubled from around 65 million tonnes to almost 130 million tonnes. This expansion has mainly come from increases in soy and palm production.

Increased use of **vegetable oils** is a result of increasing world population, wealthier consumers, and higher per capita consumption, especially in developing areas – most significantly, China and India.

Consumption of vegetable oils has shown strong growth over the decade, with Asia now responsible for half of total consumption. Protein meals have also shown strong growth.

Edible oil consumption is forecast to rise from 20kg to 25kg per capita by 2020, however, countries such as China and India are currently well below the world average.

World oilseed production and consumption



Source: Oil World.

Per capita consumption oils and fats

Country	EU	US	Australia	China	India	World
Kg/hd	51	48	26	17	11	20

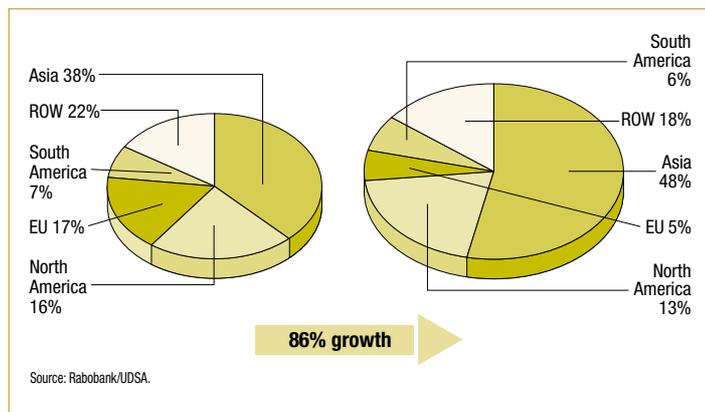
Source: Oil World.

It is likely world population will peak around the middle of this century; thus the real challenge to production capacity will be in the coming decades.

China, and increasingly India, will be the key drivers of world economic growth. Asian economies are expected to drive demand for oilseeds and oilseed products through the next decade. China is the key driver. While it is the third largest oilseed producer in the world, domestic production cannot keep pace and China now depends heavily on imports and is a major influence on the market and pricing.

India is the world's fourth largest consumer of vegetable oils and while it depends on internal production, it is a net importer of oil. Currently India imports around 5 million tonnes of vegetable oils annually.

Consumption of vegetable oils: regional share 1990 and 2004



Source: Rabobank/UDSA.

There is also expected to be substantial growth through **non-food** uses. Environmental drivers are pushing the world towards greater use of natural products that has promoted growth in both biofuels and other industrial applications. The share of non food uses has increased from 6.0% of total vegetable oil use in 1980 to 9.5% in 1990 to 11% in 2004. As Government policy in Europe, Brazil and parts of Asia require mandatory use of biofuels, this share is expected to grow rapidly.

The demand for biodiesel will be determined to a large extent by government incentives and tax exemptions, as well as petroleum prices and, in some cases, mandatory inclusion at a fixed percentage.

Recent forecasts indicate global oil production will peak within the next 20 years. Crude oil prices have risen 500% since 1999 with predictions of greater than USD100 a barrel by 2007.

Germany has implemented a mandatory 5% biodiesel level with huge requirements for local canola/rapeseed production. The EU has mandated a target of 2% biofuels by 2005, 5.75% by 2010 and 10% by 2020. This would mean a potential demand of approximately 8-10 million tonnes biodiesel in 2010).

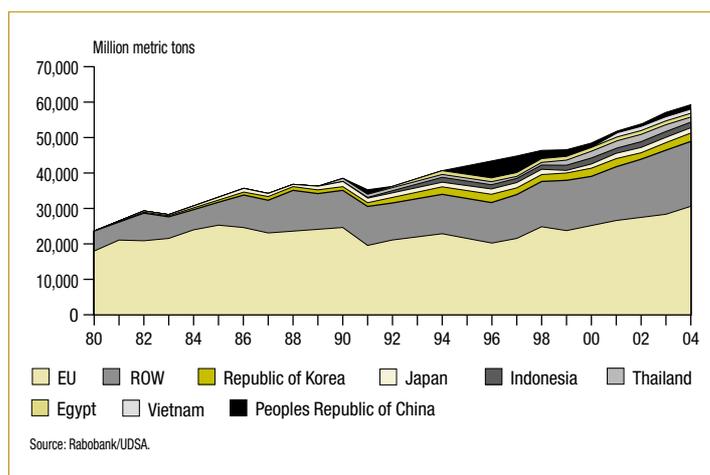
Growing production of livestock and increasingly intensive livestock production is driving increased demand for **protein meals**.

This is expected to continue to grow, as there is:

- a gradual reduction in the international trade barriers
- an increased emphasis of monogastric animals in relation to ruminants and development of markets such as aquaculture
- replacement of animal proteins in feed by vegetable meals

Meal products will continue to expand further, along with the increasing demand for meat products.

Major importers of protein meals



The forecast growth in demand from increased per capita edible oil consumption is in the order of 15 million tonnes by 2015 and for biodiesel around 10 million tonnes. To meet this demand would require in the order of an additional 12-18 million hectares which is an increase of almost 10% on current area under production. This is a key challenge to the industry globally as where these new acres will be derived.

Implications

- Demand for raw materials for food and non food uses will test the supply capacity with constraints to further area expansion and has major implications for world trade and long term price trends.
- Growth in oil and meal consumption in the Asian region will continue.
- Rapidly rising costs will result in hard choices in the fields of agriculture, food distribution and transport. The cost of petroleum-based fertiliser/chemicals will rise. Biodiesel (and ethanol) as fuel additives will become increasingly viable.
- Government policy in a number of countries is driving demand in non food uses which is likely to increasingly see a move to alternative energy forms.
- Tallow as a cheaper biodiesel option in Australia would have significant flow-on market effects for oilseeds. Higher demand/prices for canola oils locally and overseas likely to be driven by Europe.
- Due to the large volumes of diesel consumed, even a low rate of biofuels addition will result in large shifts in demand.

Health and nutrition – no longer a fad (health and functionality are core attributes)

Situation

Health and nutrition are now firmly established as a core part of the food business and functional foods have become a mainstream category. The nutrition and health approach for the foreseeable future will be based on trends including:

- Health is the future of food and all foods are fast becoming functional
- Shift from “good diets and bad diets” to “good foods and bad foods” e.g. good fats/bad fats
- Personalised nutrition
- Incorporation of the kids’ nutrition crisis into all agendas

Health and food functionality are long term consumer trends, with concerns around the increasing tendency towards obesity a key issue. Australia now ranks second in obesity behind the US and is predicted to overtake the US. Consumers globally are demanding healthier foods.

Trans fatty acids (TFAs) are the current ‘health’ driver in the oils and fats segment. TFAs are a type of unsaturated fatty acid that can impact on health by adversely affecting cholesterol levels. Low levels of trans fatty acids occur naturally in the fat of dairy products and meat; and are also formed during hydrogenation, or partial hydrogenation, of oils. Many countries including the United States, Canada and some European countries, have either placed limits on the permissions for TFA in processed foods or, more commonly, mandated labelling requirements for TFA in foods. In Australia, there is no mandating of labelling of TFA due to the relatively low intakes of TFA consumption and that a similarly sized reduction in saturated fatty acid intake was more likely to have a larger impact on health outcome compared with reductions in TFA intake.

Increasing consumer awareness is moving consumption away from foods containing trans fatty acids and high saturates. Food industry leaders are changing product formulations to move from trans fatty acids to healthier oils. High stability oils have been introduced to capture this emerging market opportunity e.g. High Oleic – Low Linolenic Canola, Mid and High Oleic Sunflower and Low Linolenic Soybean.

Despite the fashion for low-fat diets, some fat is vital to good health. Two essential fatty acids, linoleic acid (omega-6 family) and alpha-linolenic acid (omega-3 family), cannot be made in the body and must be provided by our diet. They are necessary for growth and development and for maintaining health.

Omega-3 fats such as alpha-linolenic acid (ALA) and its derivatives eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are primarily found in the fats of fish, particularly deep-sea oily fish such as herring, salmon, tuna, mackerel and sardines. ALA is found in plant foods such as linseed, canola, soybeans, walnuts and dark green leafy vegetables. **Omega-6** fats like linoleic acid are the main polyunsaturated fatty acids of common vegetable oils (sunflower, safflower, maize, cottonseed and grapeseed), some nuts and polyunsaturated spreads. Polyunsaturated fats are good at reducing total cholesterol, which has made them an important factor in diets for the heart.

Implications

- Markets for value added specialty oils and healthy products will expand.
- Food service/food manufacturing products that have healthier attributes will continue to grow.
- The market will segment further in an effort by marketers to gain share.
- A requirement for a closer relationship between industry and researchers and breeders to act on trends.
- A need for the AOF to be proactive in conjunction with industry and Government in directing the research effort.
- Speed to market is essential to capitalise on market and gain competitive advantage.
- Requires a tracking and understanding of consumption patterns, with a focus on expanding demand for the premium soft oils.
- The use of crop genetics to fast track new generation products will be essential.

Influence of fatty acids on blood cholesterol

Fatty acid type	Total serum cholesterol	HDL level (good cholesterol)	LDL level (bad cholesterol)	Oils
Saturated	Raise	No Effect	Raise	Palm
Monounsaturated	Lower	Raise	Lower	Canola/HOS
Polyunsaturated	Lower	Lower	Lower	Sun/Soy
Trans fatty acids	Raise	Lower	Raise	

Access and willingness to adopt technology will underpin competitiveness

Situation

The global area of biotech crops has grown rapidly, with all major exporters of oilseeds adopting the technology. In 2004, 81.0 million hectares of GM crops were sown, a figure which is growing at 20% per annum. The area is expected to increase significantly in the next few years as Brazil moves to adopt the technology. The adoption of GM technology has been most widespread in the production of maize, soybean and canola, as well as cotton. Europe remains largely non-GM.

GM technology has delivered benefits for producers through greater productivity and in the area of occupational health and environmental damage through reduction in pesticide use. Benefits to consumers are possible through lower food prices and, potentially, enhanced attributes. GM production in Argentina, Canada and the United States has been shown to have lowered costs by more than 5 per cent.

Despite these benefits, consumer and community groups are concerned about their potentially adverse impacts on food safety and the environment. Governments have responded to those concerns in various ways, but including banning the production and/or use of GMs; or mandating strict labelling laws. This can result in either discounts or non access certain markets for exporters, even if only a sector of farmers adopt GM technology. Consumer attitudes towards GMs may change as second generation GM varieties come on stream that exhibit product attributes specifically desired by consumers.

Implementation of rigorous and cost effective identity preservation programs is likely to be critical to the successful introduction of GM crops.

Australia oilseeds are GM free except for cotton and moratoriums on GM food crops are in place in most states. This has seen some players (multinationals) withdraw from local plant breeding. The Australian cereal industry is concerned for its markets if the oilseed sector adopts GM crops.

There is industry concern that Australia will be left behind and frozen out of markets in the next 5-10 years if biotechnology is a tool not available to it. This is due to underlying need for improved varieties. Current oilseed genetics are not sufficient against weed resistance and the heavy reliance on one technology (TT canola) is a threat to the canola industry. The longer term implications of access to improved genetics such as drought, frost and nutritional characteristics are critical.

The application of GM technology is giving a yield/cost advantage to North and South American producers. Where price premiums for non-GM varieties exist they are generally small, with the exception of some niche or smaller markets where premiums can be significant.

The issue of GM has been badly marketed and consumers are wary of the applications of gene technology. Soy and sunflower producers believe non-GM is a niche market for their crops.

Co-existence of GM and non-GM crops is supported by the industry in order to compete in different markets. The need for, and willingness of, consumers to pay for identity preservation systems is likely to change as the demand by consumers for foods with (or without) specific attributes continues.

In progressing the GM issue, industry and Governments will need to consider, and come to a position on, issues such as the potential economic benefits from biotechnology development vis-à-vis net negative environmental risks; additional costs of segregation and identity preservation; discounting and/or loss of market access for canola and/or other commodities; and impact on Australia's generic reputation as a 'clean, green, safe food' producer.

Implications

- Soy is strengthening its position as the dominant oilseed crop and is giving producers in North and South America a better competitive advantage.
- Australian canola development is falling behind Canada, limiting the industry's international competitiveness.
- Consumers are sceptical of GM and need to be better informed in the GM debate.
- A resolution to the GM issue will require Australian industry and Governments to show leadership.
- Local soy and sunflower growers and marketers will need to invest in communication programs that differentiate their product and provide a premium in the market.
- The AOF needs the resources to take a strong role in progressing the GM debate.

Competition based on cost competitiveness and innovation

Situation

The competitive position of oilseed producers can be mapped in terms of those industries that are low cost, large-scale producers and those targeting the health and quality markets.

The rapid growth in soybeans and palm has been driven by cost competitiveness. These crops now dominate world oilseed and oil production.

In response to health and nutrition trends and concerns, the world is seeking new products to meet this demand. In North America the focus has been on development of new forms of canola, soy and sunflower oils, while in Malaysia there has been considerable investment in development of different forms of palm oil.

The trans fatty acid issue has driven considerable development and innovation including:

- High or mid oleic & low linolenic canola seeds
- High and mid oleic sunflower
- Low linolenic soybeans.

These products reduce or avoid the need for hydrogenation and have a better health profile. Palm oil is also competing in this segment on the premise by global food companies that consumers are more concerned with TFA than with saturated acids.

Australia lacks the ability to be cost competitive due to its small scale and will only be internationally competitive in crops where there is an exportable surplus. Australia's location has assisted it to be competitive in export markets, i.e. proximity to Asia and the sub-continent; and in terms of distance from competitive origins for oil and meal. The nearest origin for soft oil imports is South America and the long freight haul combined with Australia's small volume requirements provides some natural advantage for local producers and processors. The exception is proximity to palm oil producers and while palm has limited application, it has made substantial inroads in those product applications to which it is suited.

To remain competitive, Australia needs to maintain or develop exportable surpluses, but the value chain will also need to adapt. This is likely to see greater integration where all parts of the processing activity (i.e. crushing, refining, bleaching and possibly packing) are consolidated on a site. This is typical of what occurs globally and will be increasingly a feature of the Australian value chain.

Implications

- Competition from soy and palm will be intense for market share.
- Lowest cost structure is essential to compete in commodity markets and this will only occur for Australia in crops where there is an exportable surplus.
- Need to further differentiate products through breeding and quality.
- The oilseed industry will have to increase productivity and develop differentiated value added products to remain internationally competitive.
- Competitive advantage of our smaller industries will depend on innovation and attracting investment.
- Increased funding for product development, breeding and extension services will be required.
- The Australian oilseed value chain will need to consolidate to offset the disadvantages of small scale.
- The industry needs to promote an improved understanding of fats so that consumers distinguish between 'good' fats and 'bad' fats.

UNITED STATES

Factors supporting value growth

- Modified soybeans e.g. low linolenic – launched commercially in 2005.

BUT

- The trans fats labelling legislation may provide a window for palm to win share.

Factors supporting cost competitiveness

- Acceptance of GM technology.
- Government support for biodiesel.

BUT

- Lack of competitiveness vis a vis South America.
- Emerging threat of Asian Rust.

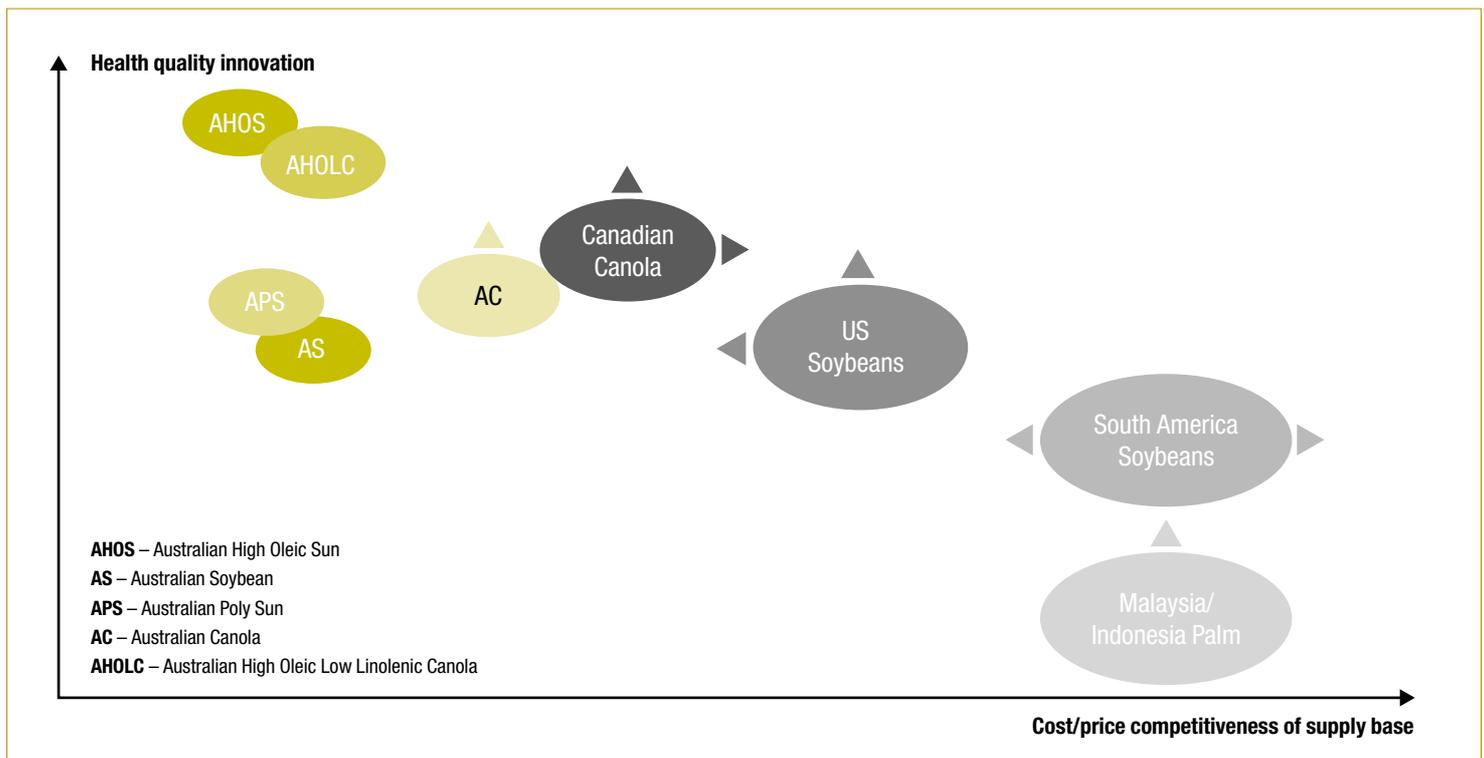
CANADA

Factors supporting value growth

- Consistent quality (although higher incidence of chlorophyll).
- Specialty canola development – commercial production of high oleic canola.
- Well funded industry body with focus on industry/market development.

Factors supporting cost competitiveness

- Large production base (7 million tonnes canola).
- Acceptance of GM technology.
- Large market on the doorstep – underpins processing investment (US market accounts for about half of oil exports and virtually all meal exports).



MALAYSIA/INDONESIA

Factors supporting value growth

- Modified oil types e.g. low palmitic palm oil.

Factors supporting cost competitiveness

- Acceptance of GM technology.
- Land expansion (Indonesia).
- Government support for biodiesel.

BUT

Pressure for sustainable production may limit expansion and/or increase costs.

SOUTH AMERICA

Factors supporting cost competitiveness

- Acceptance of GM technology.
- Land availability for expansion.
- Climate.
- Government support for biodiesel.

BUT

- Emerging threat of Asian Rust.
- Poor internal logistics infrastructure.
- Pressure for sustainable production may limit expansion and/or increase costs.

Globalisation and trade liberalisation

Situation

Globalisation and consolidation are trends evident in all parts of the industry:

- Multinational companies are prominent in all parts of supply chain and thus, industry development and consolidation in growing, processing, storage and handling is increasingly directed with a global perspective
- Global pricing of all oilseeds is driven by a fiercely competitive worldwide trading environment where soy sets the pace
- Large investments are occurring in crushing capacity in South America; and in consumer countries such as Asia and sub-continent
- R&D investment is moved to the areas giving greatest freedom and potential return
- Increasingly powerful retailers are reducing margins; expanding the presence of private labels; increasing demand for food safety and traceability

Australia is a small global player in all but canola, with higher processing cost structure than the larger plants in North and South America and Asia.

International trade is becoming an increasingly important part of the oilseed complex accounting for 19% in oilseeds, 39% in vegetable meals and 37% in oils. While oilseeds do not have the levels of protection of some other agricultural industries, there are trade support measures present in nearly all major producing and consuming countries. The main issues for the oilseed industry are:

- the high level of tariffs in key markets;
- the inconsistency in tariffs, e.g. canola versus soy; and
- export supports.

The World Trade Organisation (WTO) has had little impact as yet. 2005 is a critical year in terms of what progress may be made within the current round of negotiations.

At a bilateral level, free trade agreements have been negotiated with US, Singapore and Thailand, with negotiations underway for with China, Malaysia and Japan.

Implications

- The trend to consolidation will see the major players gain further scale advantage and become more powerful in terms of pricing and influencing the market.
- The move to a freer trade environment (via multi- and bi-lateral free trade agreements) will increase industry globalisation and provide an opportunity for growth.
- Australia needs to encourage further processing investment to increase efficiency and production of future value added products.
- Plant breeding and product development funding will compete with world investments by global players based on return
- Free trade agreements in the future will remove some barriers to market access and increase movement of product between markets.
- Australia stands to gain from increased production and increased competitiveness in trade of oilseed products.
- Australia needs to be positioned to be regarded as the source of differentiated value added products.

Sustainability – an emerging responsibility

Situation

There is an increasing world focus on environmental, human and economic sustainability issues concerning production systems. This is predominant in developing countries and the production of palm and soy where native forests are threatened and human rights are an issue.

The industry globally has moved to establish a Roundtable for Sustainable Palm and Roundtable for Sustainable Soy that are partnerships between NGO's, industry and end users to address these issues. The pressure for changed practices and greater supply chain integrity is likely to see increased costs.

Growers are increasingly directed to demonstrate their "green" credentials in taking a structured approach in documenting their environmental performance. The Australian Government wants 15% of growers to have an Environmental Management System (EMS) in place by 2010.

Global warming and changing weather patterns are impacting around globe. Australia has experienced dry conditions in the early part of this decade and world indicators suggest global warming is a real and long term feature. Drier conditions will restructure the oilseed industry and there will be a transition to better growing (higher rainfall) areas. Dry land farming varieties suitable for low and variable rainfall are increasingly becoming a priority.

Sustainable water supply is a continuing challenge for Australia. The price of water supplied to agriculture is steadily increasing and availability will be impacted by the National Agenda for Water Reform.

Returning environmental flows back to rivers, higher costs and restricted water allocations to farmers have directed that water be used on crops that provide greatest returns.

Access to new technologies, such as biotechnology, may provide potential for more sustainable production systems. If the industry is to meet demand from sustainable and environmentally responsible production systems, this will require greater government investment and leadership.

Implications

- Only crops giving greatest return (per ML) will be grown under irrigation, placing pressure on commodity oilseed crops.
- More reliable coastal regions will attract greater soybean plantings.
- Agronomy extension services will need to increase to support growers, particularly in marginal areas and with smaller volume crops.
- The industry will need to be proactive in developing sustainability with its crops and promoting its achievements to the community.
- Environmental Management Systems for gaining market access will become necessary for growers.
- A focus on canola breeding will become even more critical, with the need to fast track:
 - new varieties such as drought tolerant varieties of canola juncea or new oilseed types
 - shorter season early maturing varieties
 - development of strategies that optimise inputs for profitability and to minimise risk
 - minimal till and low harvest inputs
 - improved disease resistance
 - improved oil and meal profiles

The Australian oilseed industry



The Australian industry

Oilseeds are a large and complex Australian industry with a gross annual revenue of around \$2.5 billion.

Australia produces around 2 to 3 million tonnes of oilseeds annually. Canola and cottonseed are the major oilseed crops accounting for over 90% of all production. Canola represents 57% and cottonseed 36% of the crop. Soybean and sunflower are smaller crops with 3 to 4 % production respectively. Small quantities of safflower and linseed are also produced.

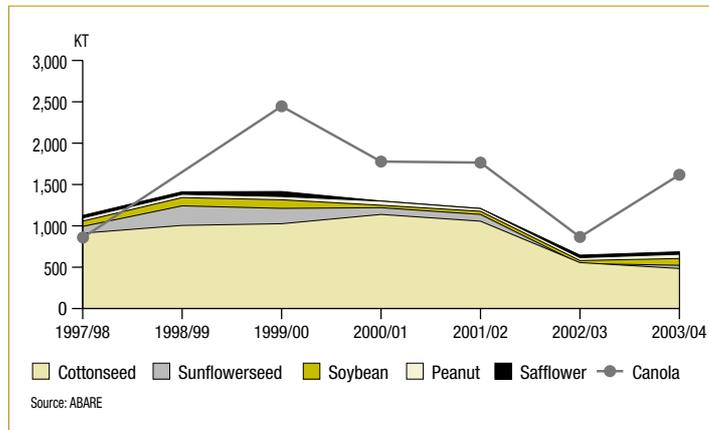
Production occurs over large geographical areas. Up to 1.9 million hectares of oilseed crops have been grown with an average of 1.4 million hectares per annum.

Oilseed products are marketed to local and export markets and to commodity and high value-add markets. In normal years Australia regularly exports over 1.3 million tonnes of canola to Japan, China and the sub continent. Over half a million tonnes of cottonseed are exported to Japan and the US.

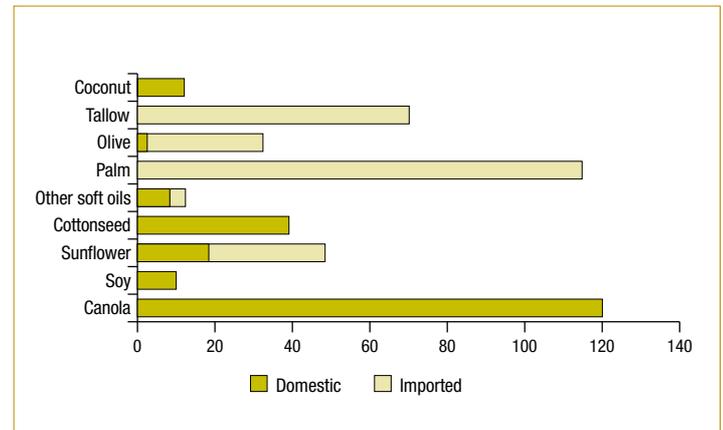
The level of consolidation and internationalisation is high with a large presence of US, European, NZ, Asian and local companies in trading and processing.

Investment in plant breeding is through private and public funding. The Grains Research and Development Corporation is a major contributor to public crop improvement programs.

Major oilseeds – Australian production by type



Australian oil usage (2003/04)



The Australian oilseed value chain

2-3 million tonnes comprising winter crops e.g. canola and summer crops e.g. sunflower, soybean and cottonseed.

Driven by global commodity prices, seasonal factors and agronomic factors.

Production variation is greater for summer crops.

Little segregation/payment on basis of quality.

Influence of exports greatest in canola and cottonseed.

High levels of imports of palm oil for the low cost market segment, olive oil for high end of market and specialty products such as coconut.

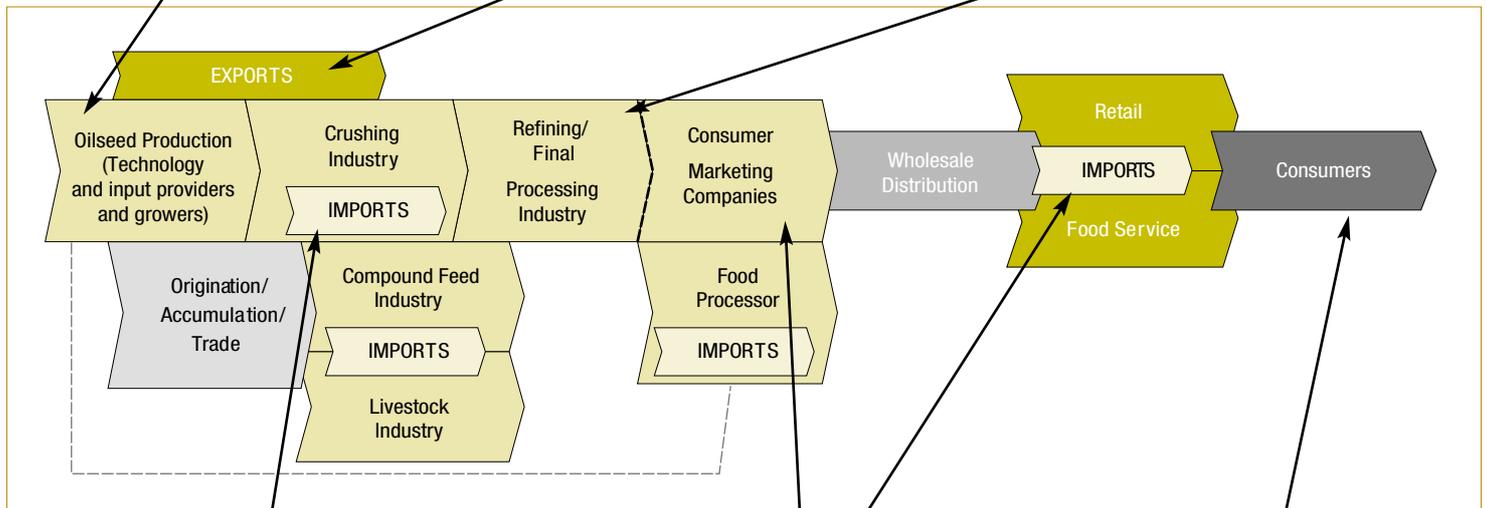
Influence of imports of finished products from developing countries has impacted retail/food service prices and subsequent profitability.

Imports of soy meal into the livestock and compound feed industry are significant.

7 refineries, 2 companies have 80% of capacity.

Low economies of scale.

Starting to see some separation of refining and consumer marketing activities.



8 significant crushing plants, 2 companies have 90% of capacity.

Traditionally most plants have been multi-crush.

Investment occurring to expand capacity in a number of plants.

Australia traditionally characterised by separation of crushing and refining. This is starting to change with downstream investment.

Industry characterised by low economies of scale and higher cost base than international competitors.

Move to more diverse product range/specialty oils requiring segregation and identity preservation systems.

High brand presence in retail markets.

Increasing differentiation of products.

Major supermarkets dominate sales and increasing impact by private labels in retail.

Changing consumer demands having significant impact on product range.

Consumer confusion.

Trend to healthy and natural products.

Increase in eating out of the home.

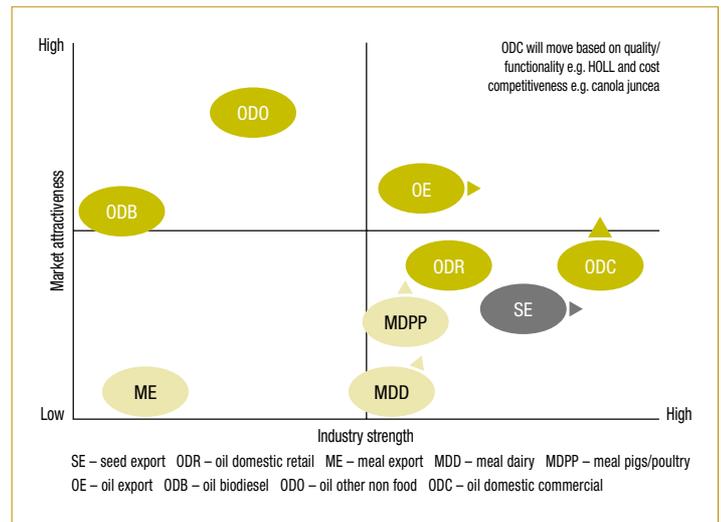
In response to competitive pressures, the value chain is likely to see greater integration where all parts of the processing activity are consolidated on a site. Australia's proximity to key markets and distance from competitive sources of supply are key factors in maintaining a strong value adding and processing presence in Australia.

Canola – the backbone of the Australian oilseed industry

Key facts

- Canola is the main oilseed crop with average production of 1.6-1.8 million tonnes per annum.
- Grown extensively in cereal growing states of WA, VIC, NSW and SA.
- Used as a break crop in cereal rotation.
- Australia's largest oilseed export with an average 1-1.2 million tonnes of seed exported to mainly Japan and the sub-continent.
- 450,000 tonnes is crushed with almost one quarter exported as oil.
- Has further potential to be a higher volume, value-added industry.
- Canola meal is supplied to the stockfeed industry, with potential to improve the value and use.
- Needs additional volume to gain improved competitive position
- Big opportunity with high oleic varieties.
- Potential to expand further with drought tolerant varieties.

Opportunities/advantages	Barriers/threats
Excellent and profitable break crop.	Perception as high risk/high input crop.
High value, established markets.	Value and usage of meal.
Strong domestic consumption and role as healthy alternative oil.	Inconsistent quality.
GM technology – opportunities for development of functional foods, improved pest, weed and/or disease tolerance, oil and/or protein modification.	Competition: <ul style="list-style-type: none"> • South American production, emerging Eastern Europe production • modified oils development in soy and palm • low R&D investment relative to soy and palm.
Specialty oilseeds for food and non food usage.	Limitations to accessing technology e.g. GM.
Good quality product, with potential for improved quality e.g. oil, chlorophyll, protein, amino acids, saturates.	Dependence on TT canola.
Increasing price of petroleum – opportunities for biodiesel.	Consumer perceptions and negative publicity.
Opportunities for meal through BSE and GM concerns – increased value and greater inclusion levels in diets.	Limited value adding.
Breeding to better manage physiological stress.	Disease.
	Lack of short season varieties.
	Lack of specialty oil varieties.
	Reduced investment into R&D&E.



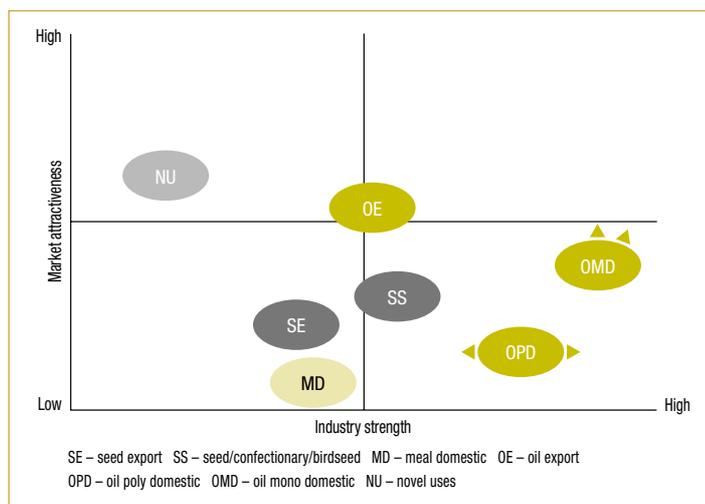
Key issues/actions

- Improved varieties – adaptation to stress environments and disease for conventional and juncea types.
- Varieties with improved quality – urgently need to progress high oleic/low linolenic types.
- Development of new herbicide tolerant types and new herbicide strategies.
- Better access to technologies.
- Support for extension networks including production packages for conventional and juncea types on a variety and regional basis.
- Improved image and confidence in the crop – Industry development officers to provide a focus on canola/oilseed issues.
- Greater resources for disease e.g. national pathology unit, robust blackleg resistance, management packages.
- Increased R&D in meal to improve products and supported by education.
- Segregation and payment on quality for a range of end uses.

Sunflower – the premium oil (health, consumer support, versatile)

Key facts

- Domestic demand for 120,000 tonnes of seed (60% linoleic and 40% high oleic) with positive growth prospects in regard to high oleic sun.
- Production has declined due to drought, meal quality and lack of grower confidence, but consistent production to meet domestic demand is possible.
- Globally sunflower oil consumption has declined due to the high premium cost to end users.
- Majority of seed crushed for local oil and meal markets, but growing interest and presence of confectionary and birdseed markets.
- Export opportunities for high oleic sun (seed and oil) and confectionary sun.
- Industry has gradually shifted to Central Queensland which presents logistical and cost issues.
- Meeting quality requirements for the polyunsaturated market from the late crop is difficult.



Key issues/actions

- Increase production through increased extension support, industry development officer, development of a crop checking system/BMP to rebuild grower confidence and profile.
- Improved pest management systems and tools.
- Improved disease resistance and rust resistance.
- Funding of new product development/identification of opportunities.
- Increased R&D into fundamental aspects of sunflower agronomy such as optimum row spacing, nutrition and irrigation management.

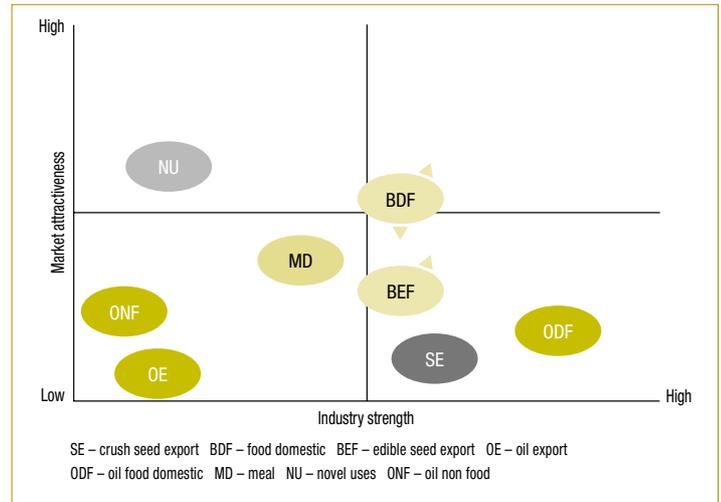
Opportunities/advantages	Barriers/threats
Stable and intrinsic domestic demand.	Low and declining production.
Consumer perception, but needs reinforcement and awareness.	Loss of knowledge in extension.
Improved quality – high linoleic, higher yield and higher oil.	Lack of extension tools e.g. variety specific management packages, understanding of economics under dryland and irrigation systems, irrigation management.
High value uses e.g. cosmetics, nutraceuticals.	Meal quality.
Better varieties – drought tolerance, heat tolerance, herbicide tolerance.	Grower support – competitiveness with other crops, awareness of rotational benefits.
Dual purpose ability.	Logistics.
Confectionary industry.	Infrastructure – dehulling uneconomic, industrial product plant/complementary industries infrastructure.
GMO free.	Low and declining R&D.
Higher and stable production through Industry Development Officer/crop advocates.	Disease, pests and weeds.

Soybeans – edible opportunities will drive growth

Key facts

- Grown in NSW, QLD and Victoria, with production of 70-100,000 tonnes. Restricted to irrigated and higher rainfall areas. Irrigated crops under pressure due to water cost and availability. Potential in sugar cane growing areas.
- Industry has shifted from supplying solely the crushing market to now being predominantly targeted to the edible market. Around 60% of the crop is now light hilum type and this is expanding rapidly.
- However, a whole of industry approach across crushing, full fat and edible opportunities is required for sustainable industry development.
- The industry supplies a range of high value food markets locally and overseas.
- Production inconsistency limits export growth.
- Yields have been increasing despite poor seasonal conditions.
- Soy foods sector growing on back of health trends and Asian influence.
- Wide range of soy based products – milk, oriental foods, flour, kibble, dairy alternatives, meat alternatives, snacks, sprouts.

Opportunities/advantages	Barriers/threats
GM free.	Poor agronomy.
Quality/varieties breeding program	Lack of export marketing capability.
Grower base – experience and ease of production.	Domination of rice re support services, R&D, etc.
Export high quality edible beans.	Lack of value adding.
Export of products e.g. tofu, soy flour.	Water availability/water price profitability/ML.
Growth in soy products – soy milk, ice cream, yoghurt, etc style products.	Competition from other industries – maize, grapes, rice, cotton, sugar, beef, peanuts.
Nutraceutical/medical.	Infrastructure – registered premises for food products, storage segregations, quality/traceability systems, drying and handling facilities, soft handling and post harvest.
Rotation benefit to whole farm (link to hidden benefits/legume benefits).	Pest & disease resistance (and better IPM methods and training in these methods).
Better understanding of agronomy/promotion of growing and marketing options.	
Product differentiation/value adding.	
Functional quality – protein, size, colour, nutrition.	
Smarter use of genetic technologies.	
Low linolenic soybeans for oil market.	



Key issues/actions

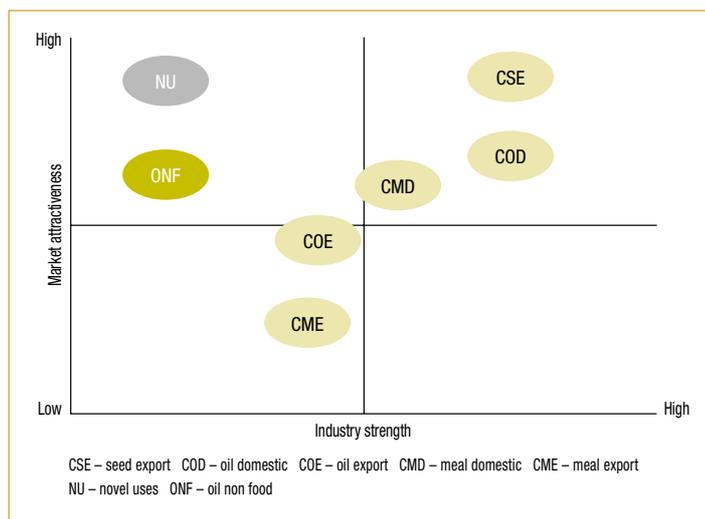
- Better understanding of the culinary attributes for soybeans.
- Soy foods opportunities – market research/product knowledge.
- Education and extension with associated benchmarking.
- Improved agronomic support.
- Pest and diseases and associated training.
- Varietal research i.e. continuation of the National Soybean Improvement Program (increased yields, drought tolerant, suitable edible qualities).
- Alliances with manufacturers and markets.

Cottonseed – important oil, meal and seed export markets

Key facts

- Cottonseed is a by-product of the cotton lint industry and thus, production is driven by the price of cotton fibre. Australia is one of most competitive cotton producers globally and, as the industry develops more efficient water use practices and trade barriers reduce around the world, this should help underpin the ongoing competitiveness of the industry.
- The crop is predominantly grown on irrigation and thus, water availability is a key factor influencing production.
- 80% of the Australian crop is currently planted to GM varieties, with this growing each year.
- Oil is primarily used in the food service industry and provides a value for money healthy alternative to hard fats in this market segment.
- Cottonseed is an important export crop. The industry has a diversified range of markets and given projections for the crop, there is expected to be sufficient demand at competitive price levels for future production. In addition, further growth in the domestic feed market is forecast.
- Whole cottonseed is used extensively in the cattle feedlot industry and is highly prized for its all round nutritional factors.
- Cottonseed meal is used extensively by the local stockfeed sector primarily in the poultry sector and the ruminants industry where the bypass protein and palatability are highly valued.
- An important issue for the industry going forward is to continue to promote the positives of GM technologies to maintain access to this tool.

Opportunities/advantages	Barriers/threats
<p>Experienced, highly skilled and professional grower base.</p> <p>Large production base.</p> <p>Export reputation.</p> <p>Ability to increase share in the commercial and food service markets as a cost effective healthy alternative to hard fats.</p> <p>Access to biotechnologies.</p> <p>Modified oil profiles.</p>	<p>By-product of cotton production and thus, little ability by the oilseed sector to influence production levels.</p> <p>Water availability/profitability.</p> <p>GM perception, particularly from meal customers.</p>



Safflower

Current status of the safflower industry

The safflower industry in Australia peaked at around 35,000 tonnes in the mid to late 1990s. This was due, in part, to the collapse of the primary crusher and marketer of safflower. The industry is now going through a rebuilding stage, although adverse seasons have limited this. The industry has the potential to move back to similar levels over the next 2-3 years, with favourable seasonal conditions and as seed supply recovers. The industry comprises conventional seed for crushing (both high oleic and linoleic varieties) accounting for around 60%, organic seed for crushing accounting for up to 40% and birdseed which is probably <5%. Given the current start to the season, production is likely to be well short of 10,000 tonnes in 2005/06.

The industry is being fostered in Australia by several niche market companies. Most of these players have linkages with North American breeding and/or marketing organisations. There are two small niche crushers who are growing and processing very small quantities of safflower.

There is some research to trial varieties being conducted, but still a need for appropriate varieties suitable for the Australian environments and target markets to be identified.

Australia's competitors

Global production is also variable and it is difficult to establish accurate figures.

For conventional safflower our main competitors are the USA in Japan and Europe and Mexico and Argentina in India. Production in the USA is falling each year and Mexico's production varies dramatically each year. In addition, Mexico can consume, domestically, all the safflower it produces. Argentina and Eastern Europe are potentially the biggest problems.

Country	Production 2004 (tonnes)
India	240,000 (usually 350,000)
USA	105,080 (down from 163,540 in 2003)
Mexico	100,000 (production varies greatly year to year)
Argentina	50,000 (production starting to build up)
China	60,000 to 300,000
Australia	6,000
Canada	4,000 (production reasonably stable)
Eastern Europe	Several Eastern European countries moving into safflower production
Other countries	Some African countries moving into safflower production

For organic safflower, major competitors are Mexico and Argentina and increasingly Eastern Europe. There is however, a severe world-wide shortage of organic safflower and Australia could easily sell everything it could produce.

Opportunities

Opportunities for conventional safflower continue to exist in Japan and Europe; however, the emerging opportunity is in India. India's safflower production is falling, while demand is increasing significantly. To overcome the shortage India is importing greater quantities from Mexico, Argentina and Australia as well as blending safflower oil with other oils (mainly corn oil and soy oil). A potential opportunity may exist in China; however, quantifying demand is difficult. China uses safflower oil for medicinal and cosmetic purposes as well as cooking purposes.

There has been a renewed interest in safflower oil in Australia and there is small, steady growth occurring.

The most exciting potential exists in the pharmaceutical industry. Safflower has been found to be a very attractive host for the production of high value proteins such as pharmaceuticals and industrial enzymes.

For organic safflower, the best prospects exist in USA, Europe and Japan, with potential in Korea and China.

Key issues for the industry

Similarly to other oilseed crops, a high priority is a need for an updated growers guide and best management practices. Priorities in the near term are:

- Production of an updated "Growers Guide", ongoing grower education and improved market information
- Additional research on a regional basis in relation to varieties and agronomic issues
- Market access activities, in particular, to improve access to the growing Indian market
- Supporting involvement in international activities such as the International Safflower Conference to ensure knowledge remains at the forefront

Linseed

Linseed was the first oilseed crop grown in Australia and was the foundation of the Australian oilseed production and crushing industry. It was grown for industrial use of the oil, which is high in linolenic acid, and imparts valuable uses as a drying oil, such as in paints and other surface coatings.

Linseed is well adapted to the wetter part of the Australian wheat belt and higher rainfall zones. Its production reached areas of around 100,000 hectares in the 1950s and 1960s, principally in southern Queensland and northern and central NSW.

During the 1970s the demand for linseed oil declined substantially due to the increased use of synthetic drying agents in paints. Consequently production declined substantially and also shifted to southern Australia, mainly western Victoria, where sowing could be delayed until spring when the export price situation had been established. It thus became an opportunity export crop with major annual fluctuations in crop size in Australia. Limited crushing of linseed occurred in Australia, with no crushing in some years and linseed oil imports used to meet the small domestic demand.

In the 1980s, Australia was becoming increasingly reliant on imported sunflower oil to supply the rapidly expanding market for polyunsaturated margarine production. The potential for an edible oil form of linseed as an alternative source of polyunsaturated oil for southern Australia was recognised. CSIRO Plant Industry and the then Oilseeds Research Committee embarked on research to genetically alter the oil composition of linseed, with the aim of removing the linolenic acid component. This program was successful in creating a low-linolenic linseed oil that was very high in the desired linoleic acid, making it similar to sunflower oil in quality.

The new crop was named Linola and entered commercial production in Australia in the late 1980s.

Linola production reached around 10,000 tonnes at its peak, but failed to make major inroads into the domestic vegetable oil market, due principally to the highly successful parallel development of canola in Australia. Canola had a significant yield advantage over Linola in most locations and also had an attractive balance of nutritional fatty acids that supported its increased market penetration.

Linola production has now declined to less than 1,000 hectares per annum, principally for the whole seed use by the bakery trade. Linola remains a high-quality product with low saturates and high polyunsaturates, and the seed is rich in lignans, compounds that have been shown to have anti-cancer benefits.

Linola has been very successful overseas, with crop production of 50-100,000 tonnes per annum occurring in Canada. The grain is mostly exported from Canada to Europe where the oil has become established as a sunflower oil replacement in polyunsaturated margarines.

The linseed crop continues to offer potential for Australia, but expanded production will be dependent on increased competitiveness of the crop and on market demand. Two new Fusarium wilt resistant linseed cultivars with improved yields have recently been released by the Department of Primary Industries in Victoria.

Currently, less than 10,000 hectares are grown annually in eastern Australia, with the seed predominantly used in the bakery trade and for cold pressed health oils as a source of omega-3 fatty acids.

Linseed and Linola also offer a good potential as a platform for development of novel oil types, and are being considered for this purpose in current research on long chain omega-3 PUFA oils and new industrial fatty acids, that could result in new oilseed crop options over the next 5-10 year time-frame.

Domestic food market underpins the industry, with growth through shift to healthier products

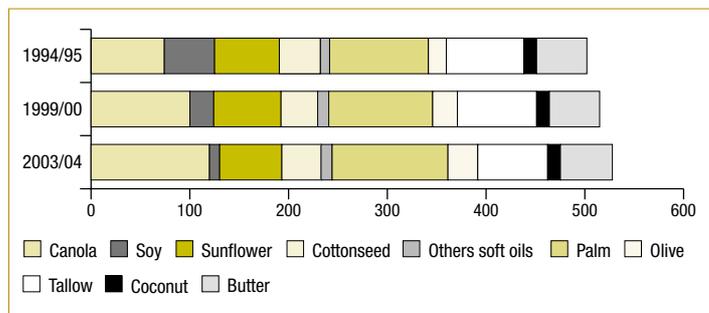
Australia produces a range of premium natural soft oils comprising:

- Mono sun a premium healthy oil which is highly versatile for use in long life frying, sauces, dressings and marinades
- Canola which is a healthy general purpose oil, excellent for roasting and shallow frying
- Poly sun is a polyunsaturated alternative and excellent for grills, mayonnaise and dressings
- Cottonseed oil is a healthy, value for money alternative for frying
- Mid/high oleic canola is an emerging product providing a healthy functional frying oil alternative
- Blends which are used to deliver a range of benefits

The domestic market consumes around 520,000 tonnes of oils and fats. The key segments are retail 35%, commercial 37% and food service 28%.

The retail or “visible” sector continues its long term decline in volume terms, which is being compensated with an increase in “invisible” consumption in the food service and food manufacturing sector of the market. While overall the market is only growing slowly at around 1-2% per annum, there is a major opportunity in terms of substituting hard fats in the short term. This could see increased demand for soft oils of around 50,000+ tonnes in the short to medium term.

Australian food usage



The changing consumption patterns driven by consumer preferences, lifestyle options, demands for improved functionality, labelling requirements and distributor power and influence has seen a number of key trends emerge. These include:

- Increased interest in blended oil combinations
- Continued move away from animal fats and palm oils due to reduced consumption of saturated fats and dietary preferences
- Increased usage in soft oils such as canola, cottonseed, soy and sunflower
- Focus on moving away from trans fatty acids and hydrogenation
- Reduced consumption of oils due to changed cooking habits, more single households, older population and consumer attitudes to fats
- Growth in specialty oils such as high oleic sunflower oil/mid oleic canola
- Move away from margarine as usage occasions for spreads decline and younger consumers not learning spreading habit. Within the category, premium brands are declining vis-à-vis price/generic brands. Olive oil-based and cholesterol-lowering margarines are increasing market share. Butter and spreads (soft butter and dairy spreads) continue to grow
- Bottled oil consumption is declining (non-olive segment) due to shift away from deep frying to stir frying and influence of Asian cooking
- Mayonnaise/salad dressing consumption increasing in the low or no fat varieties

In contrast to these trends in retail, the increase in pre-prepared food and eating out has resulted in a greater dietary intake of saturated fats. This is compounded by the lack of understanding of nutritional properties of spreads and oils. The interest in health may move the main driver for the foodservice/commercial section from cost (palm oil and tallow) to healthier oils (with functionality).

Food issue concerns are seeing demand for more natural, simple and clear ingredients and opportunities for taste and new usage occasions to provide role for spreads/oils need to be identified and developed.

The Australian domestic market has begun to see the impact of the trend towards healthier foods with McDonalds leading the way in switching to Australian soft oils. This should lead the way for greater penetration in the market.

Exports are growing in importance

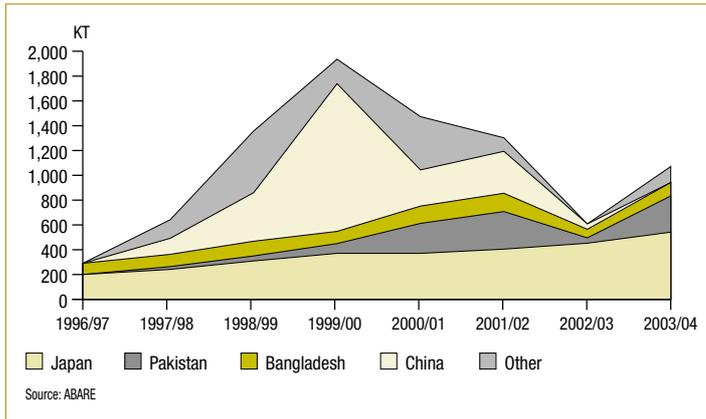
Australia has a strong and increasing presence in export markets. Today, the bulk of the industry's exports are as seed, but this is gradually increasing to provide a more diverse and value added portfolio.

Australian **canola** seed has a good reputation globally for quality. Oil and protein can be variable, but is generally clean, dry and low in chlorophyll. Japan is the Australia's major market and this market is shared with Canada. Exports have been steadily increasing. Australia has a strong position in emerging markets such as Pakistan and Bangladesh, partly due to freight, but also quality and service. There is an opportunity to differentiate Australian canola. Australian canola is competitive into China. Chlorophyll is a key advantage.

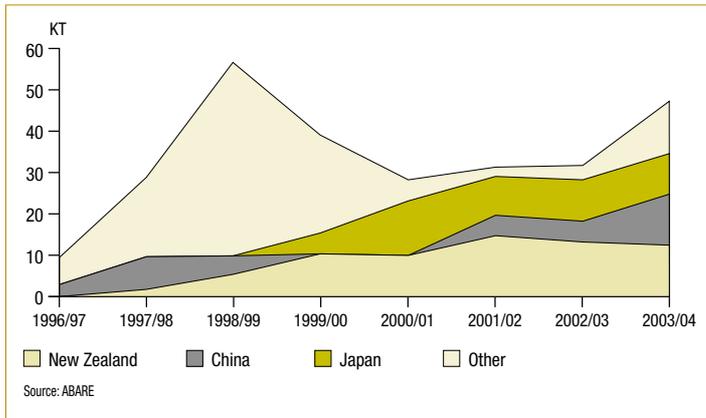
For canola oil, NZ and Japan are core markets. Australia is winning a growing share of the Japanese market.

As the newer oil types come on stream such as mid/high oleic canola, exports are likely to favour oil rather than seed exports.

Canola oilseeds – Australian exports by destination

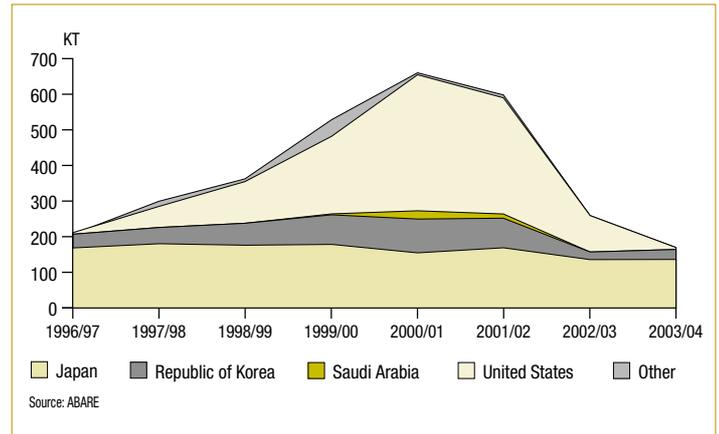


Canola oil – Australian exports by destination



Australian **cottonseed** has a good reputation as a quality and good value product. Japan and Korea are traditional markets where Australia is a preferred supplier. The US has been the major market over the last few years driven by demand from their dairy industry. The industry has a diversified range of markets and given projections for the crop, there is expected to be sufficient demand at competitive price levels for future production.

Cottonseed oilseeds – Australian exports by destination



There is a growing demand from Japan and other Asian countries for Australian **edible soybeans**. Australian beans are positioned as a premium product. Excellent prospects exist for further growth. Growth will be driven by the convergence of health, food and wellbeing and development of functional foods. The Asian opportunity based on values of Australian beans such as food safety record, non-GM, identity preservation, seasonality, quality and continued development of products and applications. Continued success in export markets requires reliable supply, understanding of the market and products and development of relationships.

Mono sun oil has considerable prospects in Japan and other wealthy Asian markets. There is also an emerging demand for **confectionary sunflower** in China. However, the industry requires increased production to be able to reliably meet the demand in these markets.

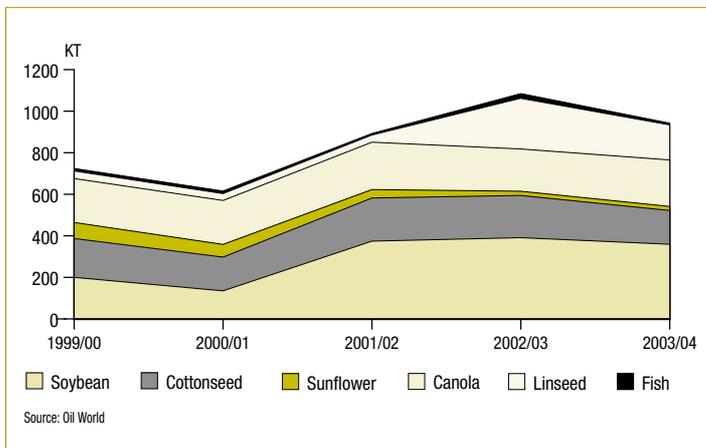
There are also export opportunities for other specialty oils such as safflower.

Protein meal opportunities from replacement of imported protein meals

A strong and viable market for protein meal is critical to the oilseed sector. Protein represents a large part of the overall value of the product.

Strong growth in the Australian intensive livestock sector has seen increased demand for vegetable protein meals. The feed grains industry now utilises around 10 million tonnes of feedstuffs and is continuing to grow. Oilseeds and oilseed meals represent around 10% of this total feed grain usage. Over the past five years canola has represented 30% of total meal usage. Soy meal usage has increased significantly in the past few years due to growth in demand, but also access to South America which has seen the entry of competitively priced soy meal from Brazil.

Australian meal consumption by type



Oilseed meals are predominantly used by the monogastric sector (pigs and poultry), although the dairy sector is increasing in importance and offers significant growth potential, particularly for canola meal. Currently, the poultry and pig sectors account for more than 60% of oilseed meal use.

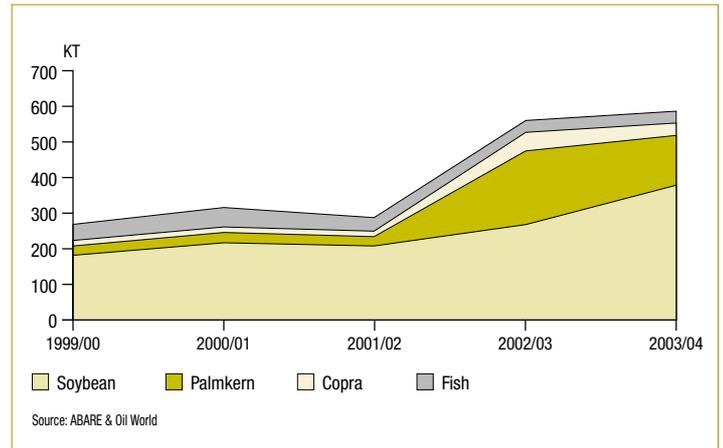
The stockfeed industry relies on consistent supply and quality and thus, is vulnerable to shortfalls or variations in quality. With increasing animal production and possible banning of meat and bone meal, vegetable protein meal and grain demand are likely to significantly increase.

Consumption by species

Livestock sector	Canola meal % of protein meal (AOF estimate)
Pigs	18
Poultry	44
Dairy	16
Feedlots	2
Aquaculture & other	6

Domestically produced vegetable protein meals compete with other protein sources for use in animal feeding. This includes protein meals and grains such as lupins and peas. The supply of vegetable protein meals in Australia is insufficient to meet demand and Australia has seen an increasing volume of meal being imported.

Australian meal imports by type



Expanding the usage and value of protein meals in Australia requires education and communication to the user industries, improvements in inherent product quality and use of segregation to manage quality variations.

Non food uses – a future market

Australia has a significant and growing oleo-chemical industry, although it is largely tallow based. Around 100,000 tonnes of tallow is used in industrial or non edible applications. Only small amounts of canola, soybean and coconut oil are also used in industrial applications – around 30-35,000 tonnes in total. Canola has strong position in some applications e.g. spray adjuvants.

Development of industrial applications may be based around an existing crop such as canola or new oilseed types which may have advantage of avoiding the need for segregation.

There are a number of industry drivers which underpin the strong opportunity in non food uses including:

- Increasing global competition which is putting downward pressure on price and market share
- Need to diversify away from commodities
- Need to capture maximum value
- Desirable to replace petroleum with renewable sources of industrial raw materials
- Need for increased biodegradability of industrial products

Long-term opportunities exist for:

- direct use in lubricants and inks
- bio-diesel fuels (e.g. rapeseed ME)
- specialty oleochemicals
- pure fatty acids (e.g. oleic acid)
- fatty acid derivatives (e.g. erucamide)
- alkyl units for polymers (e.g. nylon)
- biodegradable plastics
- pharmaceutical proteins

Future opportunities and priorities

There are a number of significant opportunities identified for the Australian oilseeds industry that will deliver increased value and growth for the industry through:

- Replacement of hard fats with premium Australian soft oil products
- Replacement of imported protein meals
- Increased market penetration through improved product quality
- Development of new export market opportunities and new uses for Australian oilseed products

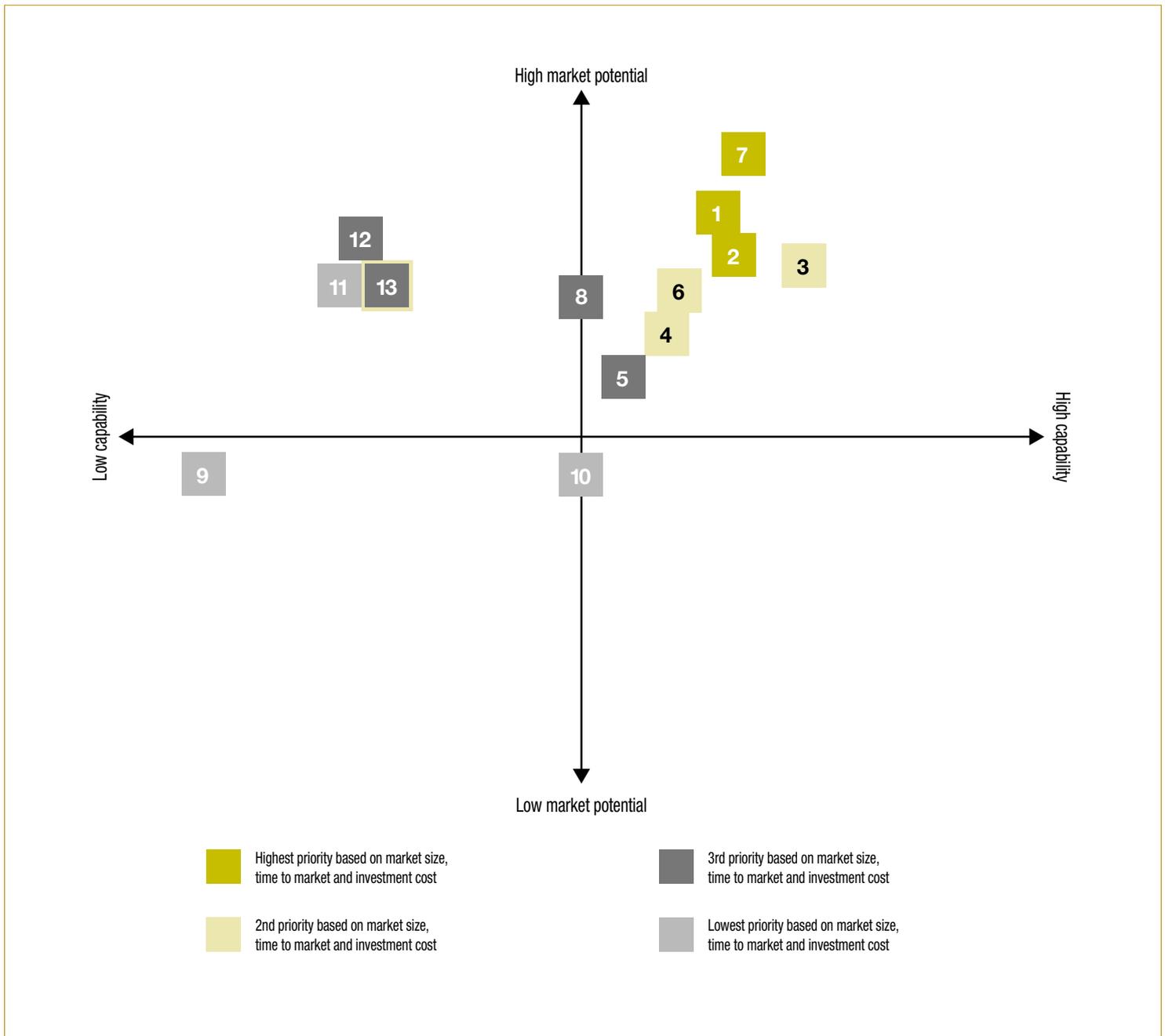
In some instances, further market research is required to confirm and quantify the opportunity and thus, positioning or priority of these opportunities may shift as information is obtained.

However, the diagram opposite shows the areas where the industry needs to apply resources as a matter of urgency and areas where further R&D is warranted to test the opportunities.

The opportunities have been mapped, taking into account market potential and capability.

Factors considered in market potential are market size and growth, cost of entry, level of competition and regulatory factors.

In terms of capability, factors include R&D resources, production and processing capability.



Opportunity rating

Opportunity	Market potential ¹	Industry capability ²	Industry benefits ³
<i>Existing or improved products into existing markets</i>			
Improve local meal products (canola, cotton, sun and soy) for both monogastrics and ruminants. 1	Australia has a very large and growing intensive livestock industry. Currently, an increasing proportion of this demand is being met by imported soy meal. The development of improved locally produced vegetable meals and the desire to move away from GM soy meal (and decreasing capacity to source non GM soy globally) will provide significant opportunity for the industry.	To capture this opportunity, requires R&D to understand how meal products can be improved through the processing activity. There is also a variety development issue based around obtaining varieties with higher levels of protein, more consistency, improved amino acid profile, lower fibre and lower sinapine. There is also an education and communication activity required.	The industry will benefit from increasing the penetration of canola meal (and other locally produced meals) in rations and at a higher value. This will benefit the economy through replacement of imported soy meal. The industry is targeting moving the value of canola meal to 75% soy value which would add around \$8 million to the industry annually.
Improved canola (market focus) products. 2	There are a range of quality improvements that can be made to canola including less variability, higher oil, higher protein, lower saturates, lower chlorophyll, etc. This is being driven by market requirements for healthier products. Canola may also become more competitive in the market through development of canola juncea which will expand the production base.	Continued improvement of varieties and development of drought tolerant crops suitable for marginal country.	Improved quality characteristics should see Australia improve its position in domestic and export markets.
Expanded exports of canola seed – consistent quality. 3	There is an opportunity to position Australian canola seed as ‘premium canola’ based around conventional and emerging product types. This will be based on differentiation of Australian canola through image building and branding.	Must maintain and enhance quality reputation.	Increase value and volume in export markets.
Mono sun oil. 4	Mono sun oil now represents 40% of sunflower oil usage domestically, with good potential to increase. There are good prospects for growth in demand for premium oils in high income markets. Price does limit use in some markets, but it can be used successfully in blends.	Like poly sun, the challenge is to get production to levels that can consistently meet domestic demand. Beyond this, there are also export opportunities for the oil.	There is currently a demand for around 20,000 tonnes of mono sun in the domestic market and this is growing. This is a premium oil in the market and reflected in the price paid to growers. There is also an opportunity to develop export oil markets as volume increases.

1 Market potential has been rated based on size of market, growth and level of competition.

2 Industry capability has been rated based on technology requirements i.e. is developed and available or at the R&D stage; product development required i.e. is the product known or at R&D stage and varieties i.e. are these available or under development.

3 This looks at which sector of the industry will benefit and how benefits will be translated through the chain.

Opportunity rating

Opportunity	Market potential	Industry capability	Industry benefits
Existing or improved products into existing markets			
Higher linoleic poly sun oil for the domestic market. ⁵	Currently the poly sun industry is unable to meet the intrinsic demand for poly sun oil in the domestic market. This intrinsic demand is likely to remain as there is increased recognition and awareness of the value of polyunsaturates in the diet. There is also evidence of the value of Vitamin E in the diet.	The Australian sunflower industry has struggled to meet this demand from both a production and quality perspective. If production is to reach levels where it consistently meets demand, improvements in varieties, practices and grower confidence are needed. In addition, linoleic levels often fall below market requirements. There are genetics available to improve linoleic levels (although environment has a key influence also), however, the market is not big enough to warrant the investment in bringing this technology to the table.	The sunflower industry has an intrinsic demand of around 30,000 tonnes of oil in Australia.
Improve edible soybean quality. ⁶	The continued health awareness of soy foods and development of western style soy based products will see expansion of the range of soy foods and increased processing in Australia.	Improved varieties including higher protein, larger seed size, lighter colour, improved nutrition characteristics suited to a range of food applications.	The soybean industry will benefit through increase value and volume in domestic and export markets.
New products into existing markets			
Mid/High Oleic Low Linolenic canola's including: <ul style="list-style-type: none"> 85% oleic, <3% linolenic 75% oleic, <3% linolenic 65% oleic, <3% linolenic. ⁷ 	There is substantial opportunity to replace hard fats (palm oil and tallow) in the domestic oils market. It has been estimated that 50,000+ tonnes of oil could be replaced by 2015. This is being driven by the limitations on, or no, trans fats; labelling legislation; and demand for functional and healthy ingredients.	The major limitation to this opportunity currently is the lack of suitable varieties. There are some mid oleics on the market, but they are not sustainable agronomically. High oleics are under development and need to be brought to market as a matter of urgency.	The benefit to the industry and the economy will be significant due to: <ul style="list-style-type: none"> replacement of imported palm oil replacement of lower value fats with higher value oils increased domestic processing opportunities. At 50,000 tonnes, this could contribute an additional \$25 million to the industry annually.
Existing or improved products into new markets			
Local protein meals into the pet food and aquaculture markets. ⁸	Currently the pet food and aquaculture industries use primarily imported soy meal. Both industries have a preference for non-GM meal. These sectors are unfamiliar with canola meal and thus, there is an opportunity to expand the usage through promotion and education.	Existing product would be able to be used in these sectors, although share of the ration may be able to be maximised by better understanding the specific requirements of these markets. The pet food industry requires a light coloured product.	The industry would benefit from new, and potentially higher value, markets for protein meals. This market could be worth in the order of \$10 million to the industry annually.

⁴ Generally an industry will move from existing markets/existing products to new markets with the same products or introduce new products into existing markets before moving to the most challenging area of new products into new markets

Opportunity rating

Opportunity	Market potential ¹	Industry capability ²	Industry benefits ³
New products into new markets			
Protein products for human consumption. ⁹	With the focus on non-GM protein sources, there is an opportunity for canola based proteins for use in food applications.	This technology has been developed in Canada and has been commercialised.	New market for canola meal which may increase value of the meal component and overall value of canola seed.
Lauric canola or cottonseed. ¹⁰	Opportunity exists to replace imported coconut oil.	Products exist; however, requires acceptance of GM technologies to commercialise.	Australia currently imports around 15,000 tonnes of coconut oil annually.
New oils for health and functionality including Omega3 (DHA) oilseeds, high stearic acid, Vitamin E. Likely to be based on canola and sunflower. ¹¹	This opportunity is driven by the increasing demand for functional and healthy ingredients. The increasing concerns around obesity and other health issues will continue to see the focus on and continued development of the functional foods market.	Requires R&D investment and technology breakthroughs to develop the products. Also requires scientific evidence of the health and functional benefits.	New income sources for the industry at higher values.
Functional foods, nutraceuticals and pharmaceuticals. ¹²	This opportunity will be driven by greater demand for functional and healthy ingredients and continued development of the functional foods market.	Requires R&D investment and technology breakthroughs to develop the products. Also requires scientific evidence of the health and functional benefits.	New income sources and markets for the industry at higher values.
Industrial products. ¹³	<p>This opportunity will be driven by pressure for environmentally friendly products and increasing petroleum prices.</p> <p>Possible new oils/applications include:</p> <ul style="list-style-type: none"> • erucic acid (polymers, cosmetics, inks, pharmaceuticals) • ricinoleic acid (lubricants, cosmetics pharmaceuticals) • vernolic acid (resins, coatings, plasticisers) • lauric acid (detergents) • conjugated fatty acids (superior drying oils) • Petroselenic acid (polymers, detergents) • biodiesel. 	Requires R&D investment and technology breakthroughs to develop the products. Also requires assessment of the relative value of applications.	New income sources and markets for the industry at higher values. May also involve new oilseed crops.

Moving forward

Opportunities/advantages

- Stable domestic market with growth from replacement of imports – oil and meal.
- Product quality – light hilum soybeans, HOS, oil content.
- Role in rotations, particularly canola, soybeans and sunflowers.
- Good research platform.
- Strategically located to growing markets and proximity to end users.
- Improved consumer awareness of health benefits/improved customer awareness of meal value
- Growth/emerging markets for specialty oilseeds, soy foods, confectionary, meals, functional foods, non food applications.
- Improved product quality and development of value added products.
- Payment for quality – oil, protein, fatty acid profile.
- GM technology:
- Ability to improve traits – improved pest, weed, disease control, improved drought, salt, frost, etc tolerance; oil and/or protein modification;
 - Ability to provide flexibility in production systems
 - Potential to develop functional foods and other new products
 - IP systems to enable choice.
- Improved supply chain efficiency.
- Increased research funding – traditional and new areas.
- Improved industry professionalism, particularly smaller/emerging industries.

Barriers/threats

- Large and growing global production.
- Low profile of crop and industry in Australia.
- Perception as opportunity crop – high risk, high input, etc.
- Water availability/cost/profit vis-à-vis competing crops.
- Productivity – gap between best and rest.
- Production – varieties and practices.
- GM – inability to access vs non GM advantage.
- Low/reducing R&D investment and prioritisation.
- Consumer perception of vegetable oils.
- Meal usage and value.
- Processing economics of scale.
- Extension services, industry development and investment priorities.
- Grower support for oilseed crops.
- Gaining critical mass in smaller crops.
- Value-adding focus and investment/limited investments due to scale of smaller crops.
- AOF funding and resources to better influence the industry.
- Diminishing capacity to underpin innovation – expertise and funding.
- Access to enabling technologies – domestic and introduced.

Common platforms for growth

For the industry to prosper it must grow in value and volume. A consistent supply of oilseeds is essential to build a long-term stable industry. The industry has to make further gains in productivity and yields to remain internationally competitive. Despite the diversity of the industry, there are a number of key common platforms that need to be put in place or enhanced to achieve the industry's 2015 vision.

Grower capacity

Growers are the foundation of the industry and require confidence in a crop to continue investment. Growers quickly respond to market forces and enterprise profitability, but require the tools and crops which offer stability and return. The key areas for investment are:

- Improved and better adapted varieties for drought, heat, salt and frost tolerance, insects, weeds, shattering, water use efficiency, lower inputs, etc
- Greater extension investment to achieve high quality and stable/increased production and wider industry knowledge base for the smaller crops
- Better understanding of variety, planting window, agronomy, water, price interactions
- Best practice guides/variety specific management packages with improved crop check systems and systems to benchmark top growers
- Continued and enhanced crop protection – pathology, entomology, 'soft' chemistry, IPM
- Broadened extension support base for individual crops and areas

The industry target by 2015:

- Higher and more consistent production, with less variability in quality
- Increased sustainability of oilseed crop production by improved gross margin
- Lower crop losses through development of varieties resistant to abiotic and biotic stresses and improved management practices
- World class extension support system

Consumer and market education

There is a need to improve the image of Australian oilseeds and oilseed products in both domestic and export markets. This will involve investment in market promotion and consumer education for seed, oil and meal products.

The industry needs to continually build its understanding of markets and consumers and be proactive in communicating to them.

The industry target by 2015:

- Increased consumption of domestically produced meals relative to imports and through innovative other uses
- Satisfy all specialty soft oil demand through domestic production (100% of soft oil demand from domestic crops)
- Reputation of competitive supplier to domestic industrial oil demand
- Increase export premiums relative to competitors
- Development of value-adding opportunities that offer growth which will require identification, evaluation and resources (see pages 27-30)

Common platforms for growth

Innovation

Innovation provides the impetus for growth and sustainable competitive advantage. This will underpin the industry's future. The industry is moving into a more open internationally competitive environment and technologies such as biotechnology is changing the boundaries by which the world competes.

Australia has strong R&D capabilities on which to build an innovation strategy, but R&D resources are mostly put behind cereals and oilseeds seen as secondary crops. This needs to change and the industry needs to adopt the common vision outlined on which R&D decisions are based.

The private sector involvement in the industry is important, but independent research efforts are based on returns and can be withdrawn. A commitment to future public R&D funding is essential. Public and private funding programs require closer coordination.

The research investment in the industry needs to be expanded. In particular, in areas of:

- Improved varieties and practices
- Smarter use of genetic technologies
- Diseases like blackleg which require constant breeding investment
- Product development for value-adding a priority
- Industrial uses program requires resources

The industry position on GMs needs to be clarified. It is generally accepted that GMs will be part of the industry in the future but requires whole-of-industry and coordinated grains industry approach to look at balancing the marketing advantage vis-à-vis competitiveness disadvantage, supported by education and communication on the human health issues; consumer and grower benefits and consumer fears.

The industry target by 2015:

- Replace hard fats in the domestic market and develop export markets for seed and oil of high oleic/low linolenic canola
- A range of new specialty oil types (e.g. low saturates, high stearic, omega 3, industrial FA) developed and introduced to replace imported oils and to access high value segments
- Improved oilseed meal quality to increase value and replace imported meals
- Permission to operate commercially with GM technologies and a pathway to market in Australia for GM products
- Industry R&D capacity (skills, investment, linkages between agencies, access to technologies) sufficient to meet the innovation objectives of the industry

Infrastructure

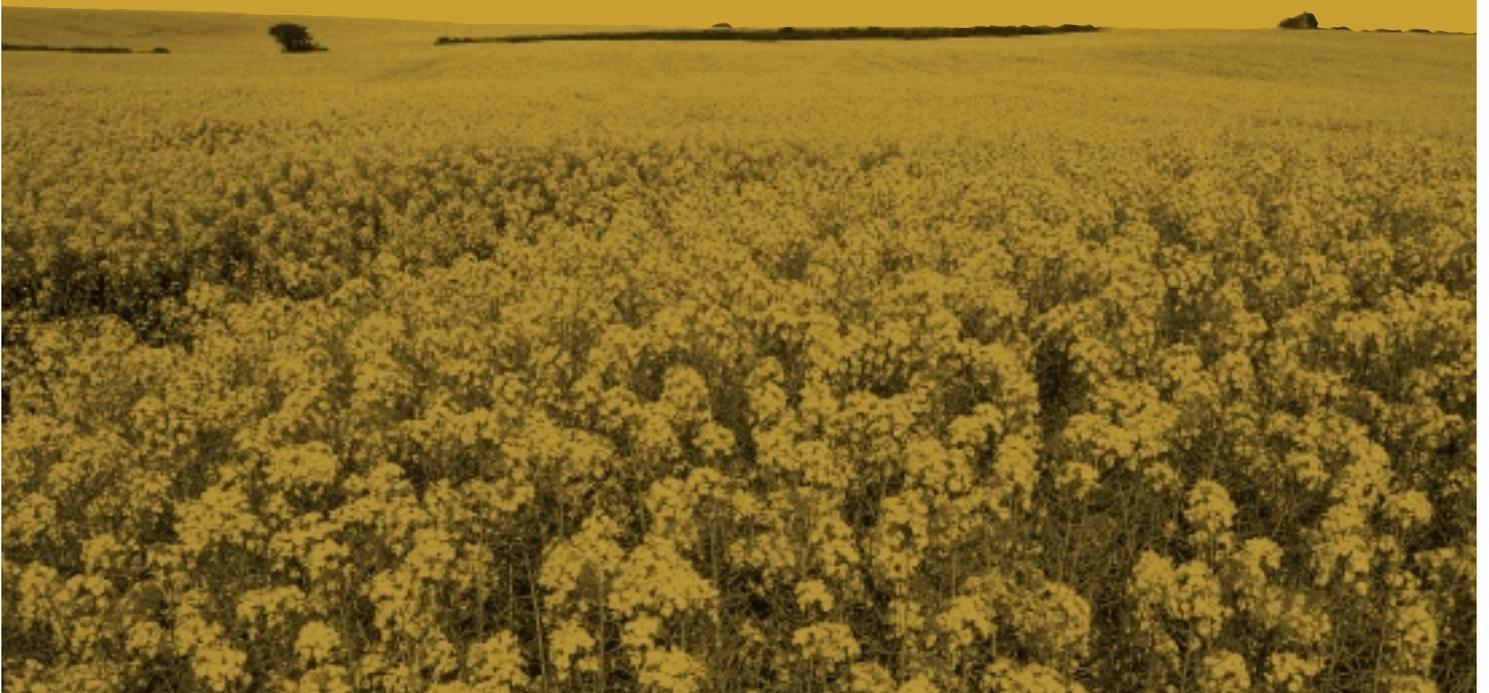
There is a range of infrastructure/capability factors that will need to be addressed as the industry progresses down the track of greater diversity and investment in excellence. This includes:

- Technical support such as quality standards, testing protocols, quality systems, identity preservation systems, etc
- Infrastructure for specialist crops and/or infrastructure for new areas or new products/crops
- Continued adaptation of the value chain to deliver improved competitiveness.

Industry support

A stronger industry structure encompassing all sectors and regions.

The Australian oilseed industry 2015



The industry in 2015

Vision

To have a sustainable and internationally competitive Australian oilseed industry that delivers to industry a range of high value edible and non-edible oilseed products satisfying market demand, utilising all available technologies.

Achievable productivity, quality, product mix and value chain efficiency gains can grow industry value to \$3.3 billion by 2015.

Themes underpinning the industry's vision

Growth in value (and volume)

The greatest potential for growth is in enhancing value and focusing on specialty products.

Embrace diversity

This will see more varieties and products being developed that exhibit unique or differentiated qualities. This will require more complex systems to embrace this diversification.

Gains by "doing it better"

There is tremendous potential for the industry through improving performance. Key areas are in lifting the average performance of growers and in building a more competitive value chain.

Technology and innovation

Research and development will increasingly support new varieties and provide product development support for diversification to succeed.

Powerful industry voice

Building AOF into a more effective voice through research funding to support innovation. A greater priority on market promotion and consumer education, to ensure long-term domestic market demand and support for producers is required.

The industry in the future

- Larger and more consistent industry with higher value add and greater spread of products.
- Greater choice and better/faster access to all technologies.
- Grower loyalty to oilseeds.
- Higher national average yields.
- Improved and more adaptable and new varieties.
- Improved and more consistent quality and greater segregation on quality.
- A culture of innovation in the industry and greater value adding to provide competitive advantage through differentiated products.
- Higher total investment in R&D from both public and private sectors.
- Experienced extension network supported by industry development officers.
- Larger and more efficient domestic processing sector for existing and alternative uses.
- A more consolidated and integrated value chain.
- Stronger, better resourced and better recognised AOF.

The Australian Oilseeds Federation

AOF plays a pivotal role

- Provides overview and shared vision for the industry.
- Works with the industry to develop plans for future growth.
- Provides market signals and priorities for research.
- Collates data on economics of industry.
- National body which represents all sectors.
- Provides link with key grains industry and consumer industries.
- Assists in recommending areas of research spending.
- Supports growers in the pursuit of improved agronomic practices.
- Unifies the industry to provide a powerful voice.
- Ability to connect with government.
- Provides for closer ties with consumers to monitor trends and influence behaviour.
- Defines industry standards across a range of technical and quality assurance issues.
- Is the umbrella body to handle crises and issues as they may arise.
- Provides linkages with the international oilseed industry.

AOF in the future

The oilseed industry needs a strong central voice to protect its interests and pursue growth.

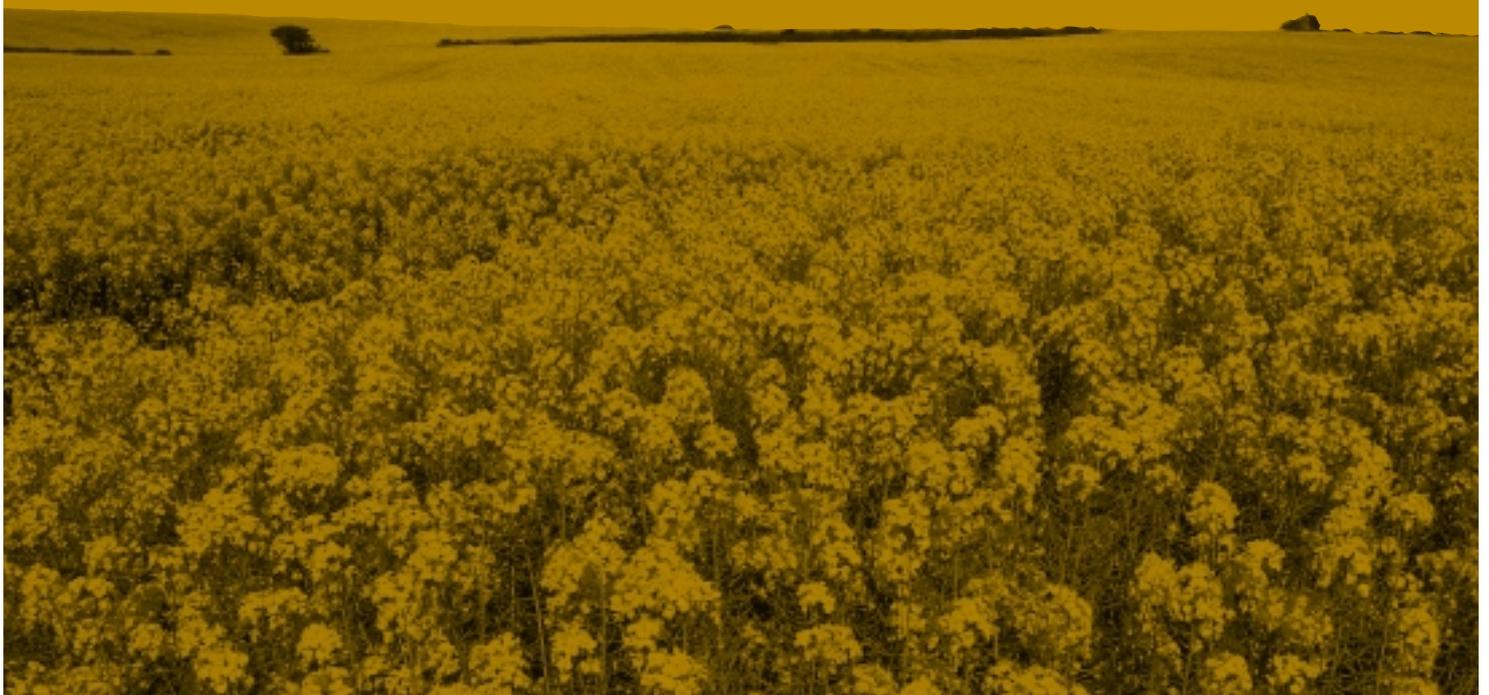
The AOF needs to be positioned and resourced to conduct the industry's long-term agenda.

- Able to support growth.
- Develop strong sustainable programs.
- Represent all sectors.
- Significant ongoing investment.
- Ability to lobby at peak industry level.
- Compete for share of voice with competing bodies and industries.
- Strong leadership.
- International linkages.

AOF's role in assisting the industry achieve its 2015 goals

Industry 2015	AOF role in delivering the 2015 vision
<p>Consistent and larger production of required qualities to meet domestic and global demand.</p>	<p>Assist to build grower capacity through network of industry development specialists that ensures extension knowledge is leading edge, oilseeds crops have a high profile with growers and feedback to and from grassroots industry.</p> <p>Facilitate investment in, and identify priorities for, extension and R&D.</p> <p>Identifying and communicating market demands.</p> <p>Positioning oilseeds as an attractive crop for growers/grower support.</p>
<p>Access to all technologies in a timely manner and appropriate commercial freedom.</p>	<p>Identifying priorities for, and facilitating investment in, R&D.</p> <p>Taking leadership in developing an industry position on GM and working with other industries to gain resolution.</p> <p>Facilitating access to technology and permission to operate.</p>
<p>Larger, more resilient and diverse processing sector within a more integrated and competitive value chain.</p>	<p>Monitor development of the value chain.</p> <p>Provide analysis to industry and government.</p> <p>Assist industry proposals for improved infrastructure.</p>
<p>Recognised as a valuable crop and products with growers and consumers.</p> <p>Increased investment in R&D.</p> <p>Larger crop sector.</p>	<p>Promoting the industry and its products in domestic and export markets.</p> <p>Promoting the crop to growers.</p> <p>Enhancing the profile of the industry with government, organisations and interest groups that influence the commercial environment; investment and/or industry's reputation.</p>
<p>Recognition of the role of oils and spreads in the diet. Recognition of the value of Australian natural soft oils.</p>	<p>Invest in consumer education programs.</p> <p>Build on the relaunched "Nature's Finest" campaign.</p>
<p>Increased value of canola meal relative to soy meal and increased share of rations in all livestock species.</p>	<p>Facilitate investment in R&D to improve products.</p> <p>Invest in education and promotion programs.</p>
<p>Range of specialty oils and new products/uses that increase the value and volume of the industry.</p>	<p>Monitor and provide information on international and local trends.</p>
<p>Sufficient capacity to deliver innovation required.</p>	<p>Implement an R&D monitoring program.</p> <p>Provide appraisal and shortfall to industry and government.</p>

Australian Oilseed Federation plan 2010



Vision and purpose

“AOF is the peak industry body for the Australian oilseeds value chain in both domestic and global arenas embracing consumers of food, feed, health and industrial products”

Purpose

Provide a credible and recognised voice for the oilseeds industry.

Promote industry development to capture market opportunities.

Deliver value to members and members' businesses.

Program areas

- Stronger and more credible voice.
- Market and product development.
- Innovation.
- Grower capacity.
- Industry capacity and influence.

Objectives

Program areas	Objectives
Stronger and more credible voice	<p>Improve resources and structure.</p> <p>More representative membership and add value to membership.</p> <p>Raise the organisation's profile.</p> <p>Proactive policy/strategy development.</p>
Market and product development	<p>Position Australian soft oils as a healthy food source.</p> <p>Develop the meal opportunity.</p> <p>Support export initiatives.</p> <p>Support potential new market opportunities.</p>
Innovation	<p>Foster a culture of innovation.</p>
Grower capacity	<p>Encourage a strong supply base.</p>
Industry capacity/technical support	<p>Support the introduction of technology to improve competitive advantage.</p>

Strategies and outcomes

Focus area 1 – Stronger and more credible voice

Objectives	Strategies	Outcomes
Improve resources and structure.	<ul style="list-style-type: none">Continue to enhance the AOF secretariat to ensure the plan is delivered in a timely and professional manner.Develop a commodity support program to enable grassroots industry development.	High level secretariat with sufficient resources to deliver services that create value for members. Integrated industry structure with national geographic and commodity coverage.
More representative membership and add value to membership.	<ul style="list-style-type: none">Broaden the membership base and linkages with industry stakeholders in the value chain.Enhance participation through delivering value for money for members and funding bodies (global and domestic).	Broader membership base with active participation from all member groups.
Raise the organisation's profile.	<ul style="list-style-type: none">Gain increased recognition of AOF as the industry's representative body.Expand information flows and communication to/amongst key interest groups.Develop and maintain a clearly articulated industry profile.Highly visible influential profile (global and domestic).	High visibility nationally and internationally, with effective and influential linkages with the industry, government and key interest groups.

Strategies and outcomes

Focus area 2 – Market and product development

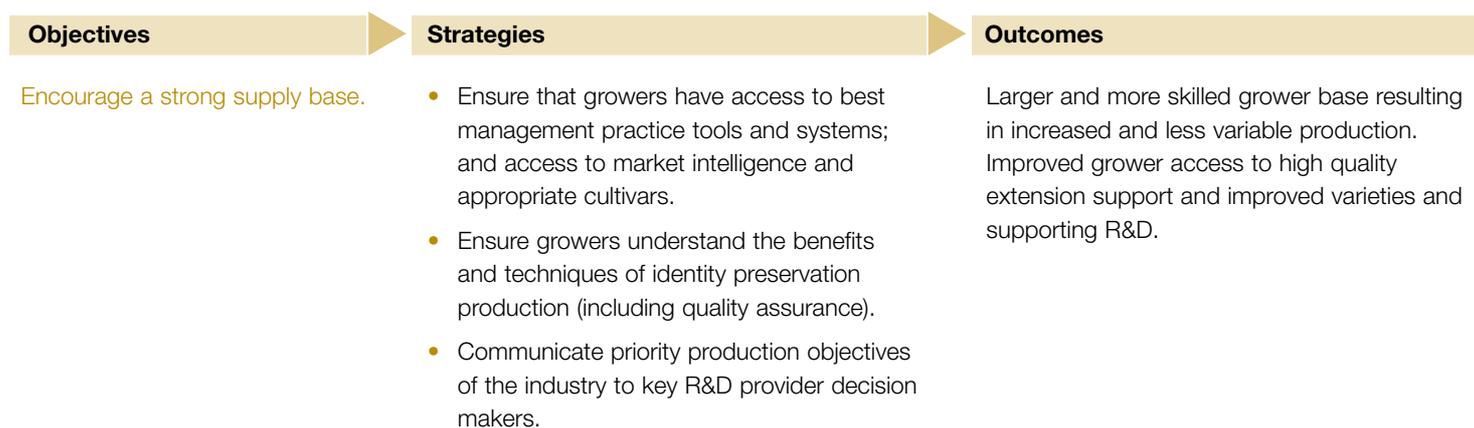
Objectives	Strategies	Outcomes
Position Australian soft oils as a healthy food source.	<ul style="list-style-type: none"> • Proactive efforts to increase and promote usage of Australian oilseeds and oilseed products. • Increased education at all levels of the industry and market. • Develop a 3rd party information resource network. • Increase awareness of the benefits of oilseed products in the Australian diet. • Establish AOF as an independent and credible commentator. • Proactive management of consumer issues and concerns. • Leverage brand promotions of consumer marketing companies. 	<p>Consumer recognition and support for Australian healthy and natural oils.</p> <p>Repositioning of Australian oilseed products by health professionals and authorities.</p> <p>Increased use of Australian oilseeds and oilseed products (through replacement of tallow and imported palm oil).</p>
Develop the meal opportunity.	<ul style="list-style-type: none"> • Direct priorities and facilitate R&D investment into improving meal quality. • Target key influencers to educate and promote benefits of Australian oilseed meals. • Develop technical R&D base of information. • Investigate and influence research direction and funding into alternative uses of meal. 	<p>Increased usage of Australian protein meals (reduced imports of soy meal) and improved value relative to imported soy meal. Increased R&D funding for meal projects.</p>
Support export initiatives.	<ul style="list-style-type: none"> • Promote Australian oilseeds and oilseed products. • Support industry to maintain and improve quality of products and supporting systems. • Industry representation in relation to market access and export development issues. 	<p>Improved image and positioning of Australian oilseeds and products vis-à-vis competitors.</p> <p>Improved market access for Australian oilseeds and products.</p>
Support potential new market opportunities.	<ul style="list-style-type: none"> • Encourage research and promote opportunities for industrial oils and by-products. • Provide market signals, direct research priorities and support marketers in relation to new products. 	<p>Expanded markets and products.</p>

Strategies and outcomes

Focus area 3 – Innovation



Focus area 4 – Grower capacity



Focus area 5 – Industry capacity/technical support



Action plan

Activity area	Actions in next two years	Actions by 2010
AOF resources.	<ul style="list-style-type: none"> Identify resource and capability requirements for AOF activities. Develop database of industry experts to assist AOF. Build AOF knowledge and linkages through attendance at industry conferences in key target sectors (and where AOF funds industry people to attend conferences, improve the reporting mechanisms). 	<ul style="list-style-type: none"> Develop appropriate linkages with industry experts and technical capability. Continue to review secretariat requirements and expand capacity as needed and resources allow.
AOF structure.	<ul style="list-style-type: none"> Develop a discussion paper around an industry structure that has AOF and 3 regions. Convene a meeting of the commodity groups and AOF to discuss the proposal (at the AOF Forum in October 2004) and develop implementation strategy. Continue to facilitate and enhance linkages between industry sectors and across commodity groups. 	<ul style="list-style-type: none"> Full implementation of the revised AOF structure.
Membership.	<ul style="list-style-type: none"> Develop a proposal for expanding AOF reach across the value chain based on associate membership structure, and which incorporates regional/individual memberships as an integrated structure is adopted. Identify and approach potential associate members for 2006/07. 	<ul style="list-style-type: none"> Twenty associate members from the food, feed and health areas.
Profile.	<ul style="list-style-type: none"> Continue and enhance communications with members and industry including AOF News, AOF Crop Report, AOF Forum, Fast Facts, website, Agriculture Australia. Increase profile through presentations at selected or targeted meetings/conferences. Sub-committee to review current information platforms and develop options to go forward. Maintain and enhance relationships with key government agencies including DFAT, DAFF, AQIS, GRDC, etc. Improve information flow with stockfeed, food and grower sectors, and encourage associate members. Maintain communication with industry groups such as GRDC, NACMA and Pulse Australia. Develop linkages with universities and other training institutes. Maintain and enhance international profile through IASC and its member bodies, and through direct export market programs. Representation of the industry at various government/industry meetings/committees. 	<ul style="list-style-type: none"> Continuation and enhancement of communication activities. Increase international profile through hosting of international conferences such as ISF Congress 2009, International Safflower Conference 2009, and the International Sunflower Conference 2012.

Action plan

Activity area	Actions in next two years	Actions by 2010
Market priorities.	<ul style="list-style-type: none"> Continue the end user program to market and R&D priorities for oil, meal and seed industries. Continue to support research reports on key issues such as canola meal. Identification and promotion of quality specifications/QA requirements for soybean markets. 	<ul style="list-style-type: none"> Development of technical fact sheets for all oilseed products for the different markets segments (meal – poultry, pigs, dairy, etc; canola oil – shallow frying, roasting; mono-sunflower – deep frying, salad dressings).
Industry development (grower capacity).	<ul style="list-style-type: none"> Develop a proposal for a commodity support program which incorporates regionally based oilseed industry specialists. Identify funding options for this proposal. Seek funding for implementation. Continue support for the sunflower benchmarking program with view to this being incorporated into the commodity support program in 2007. Promote the productivity and improvements being made to water use efficiency with respect to soybeans as a target crop under irrigation production regimes. 	<ul style="list-style-type: none"> Implement the commodity support program. Identify and promote “Best Practice” production systems for the different crops and production zones via industry specialists.
Oil/edible beans.	<ul style="list-style-type: none"> Continue the Nature Finest program with a focus on promoting Australian soft oils and specifically including mid/high oleic canola as this product comes on stream (includes food service promotion kits, media program, core foods program and nutrition fact sheet series). Increased education e.g. schools, consumers, retailers, distributors and manufacturers. Produce new Nutritional Profile of Oils Chart including mid and high oleic canola. Sponsorship of NHF in projects to support soft oils over tallow in foodservice. Continue activities targeted to influencing dietary guidelines. Continue to utilise the Consumer Marketing Group to identify activities for the Nature’s Finest program and to proactively manage consumer issues. Continue to lobby on trade issues such as mislabelled imported products. Education on the attributes of soy foods. 	<ul style="list-style-type: none"> Update and reproduce the schools kit. Develop linkages and influence with school canteens and other food programs. Utilise the experts database to promote positive stories and combat negative activities. Continue education and promotion activities. Technical fact sheet (as per market priorities section).

Action plan

Activity area	Actions in next two years	Actions by 2010
New products.	<ul style="list-style-type: none"> Continue to work with the supply chain to facilitate the smooth introduction of the canola juncea. Work with the supply chain to manage the introduction of high oleic canola. Foster development of practical IP programs and educate growers. Investigate options for progressing the sunflower pectins project. 	<ul style="list-style-type: none"> Education with the market and growers on canola juncea. Education with the market and growers on mid/high oleic canola.
Meal.	<ul style="list-style-type: none"> Undertake an industry survey of meal products and develop technical fact sheets. Continue to identify end user needs through the end user program. Update nutritionist database and use this to promote Australian canola meal and educate the feed market. Introduce a protein specification into the AOF trading standards for canola seed. Identify requirements of and then introduce an education program for new market segments such as pet food and aquaculture. 	<ul style="list-style-type: none"> Continue to monitor quality of meal produced domestically. Continue education and promotion program. Investigate a payment for quality system based on protein, oil and moisture. Database of amino acid profile of each variety.
Trade.	<ul style="list-style-type: none"> Continue to support the Australian government's efforts in WTO negotiations. Review potential for AOF involvement in the IASC Level Playing Field Initiative. 	<ul style="list-style-type: none"> Participation in trade promotions.
Exports.	<ul style="list-style-type: none"> Implement market specific support programs e.g. Pakistan Technical Program. Utilise information generated on quality of Australian products to promote these in export markets (canola and cottonseed). Develop a document identifying and promoting the benefits of Australian canola versus other origins. 	<ul style="list-style-type: none"> Review potential for segregations to target specific quality opportunities. Implementation of AOF variety recommendations.
Standards and quality.	<ul style="list-style-type: none"> Maintain and regularly review the AOF standards to ensure these are internationally consistent and reflect the demands of customers and crop profile. Continue support for the Quality of Australian Canola book. Profile varieties and develop a database which can be used for development of payment for quality systems and variety recommendations. Continue the AOF Test Check program and investigate expansion of this to oil and meal. 	<ul style="list-style-type: none"> Continue maintenance of standards. Investigate development of an AOF variety accreditation program.

Action plan

Activity area	Actions in next two years	Actions by 2010
<p>Innovation.</p>	<ul style="list-style-type: none"> • Continue support for the AOF Supply Chain program. • Investigate the opportunities to offer the Supply Chain Program to university students. • Develop closer links with bodies such as the Grain Foods CRC, CSIRO/GRDC Biofactories Initiative, etc. • Support AOF attendance at conferences etc to facilitate information flow. • Lobby for the 2009 ISF Congress to be held in Australia. • Undertake a review of current AOF forums/conferences and success rate in driving marketing relevant innovations and report on findings and review relevant actions. • Utilise scientists/organisations such as CSIRO to be more pro-active at conferences e.g. DAA to promote/look to future for health trends with soft oils. 	<ul style="list-style-type: none"> • Collate and disseminate information and ensure oilseeds are positioned to take advantage of technical breakthroughs. • Align breeding programs and support with promotion activities when new products are developed. • Hold the 2009 ISF Congress in Australia providing access for the Australian industry and students to the latest technical research and information.
<p>Grower capacity.</p>	<ul style="list-style-type: none"> • Continue to support the development of, or develop, information sheets/Fast Facts publications on new developments such as mid/high oleic canola, juncea canola and others. • Improve linkages with groups such as GRDC, farming systems groups and DPIs. • Utilise regional arms of AOF to develop and/or deliver grower support packages. • Support development of grower best management guides. • Support the National Variety Testing Trials with appropriate quality assessment. • Resource field officers for the three regions identified in the new 'structure'/Review the availability of training (education) in oilseed crops to determine gaps in current and future knowledge (ensure that knowledge of agronomy is available, for all soft oils). 	<ul style="list-style-type: none"> • Implement the commodity support program. • Identify and promote "Best Practice" production systems for the different crops and production zones via industry specialists.
<p>Technology.</p>	<ul style="list-style-type: none"> • Continue to participate in working groups and other activities seeking to develop an appropriate policy framework for GM and other emerging technologies. • Continue education and awareness activities around new technologies such as GM. • Develop strategy for co-existing with GM including co-existence trials, discussions with GM providers and government to progress trials. 	

Australian Oilseeds Federation

PO Box R1826, Royal Exchange NSW 1225

Tel **02 9405 2340** Fax **02 9405 2341**

Email aof@australianoilseeds.com Web www.australianoilseeds.com





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