



Australian Oilseed Federation

Review of the Sunflower Industry and Plan for Future Growth

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Prepared for the AOF by Meyers Strategy Group Pty Ltd

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Introduction

The sunflower industry is at a critical stage in its development. The traditional linoleic industry has lost grower support, with a subsequent fall in production. On the other hand, whilst sunflower based products have been challenged at the end product level, there remains a significant and intrinsic demand for polyunsaturated sunflower oil.

The industry is also faced with the exciting prospect of development of a high oleic sunflower industry, which offers significant growth in food service and industrial markets. However, there is a need for greater grower support of this industry also if it is to prosper.

Thus, a critical issue for the sunflower industry is stability of supply. This is impacted by location of the industry, i.e. northern Australia. In contrast to the canola industry, which is a winter grown, southern based crop, sunflower production is inherently more variable.

Whilst in Central Queensland weather patterns are the main driver of sunflower plantings, across the board indicated strongly that sunflower production was price driven, rather than rotation driven. A large factor causing increased production this year has been the availability of premiums for the high oleic mono market.

The sunflower industry is represented by the Australian Sunflower Association (ASA), who in turn, is a part of the Australian Oilseeds Federation (AOF). The AOF developed a five year strategic plan in 1993 which identified the need to lift sunflower production to the level of 150-200,000 tonnes annually. The ASA have identified that a key factor preventing the industry from reaching this goal is grower confidence.

Accordingly, the AOF and ASA, identified the need to review the industry and consult with growers and others in the industry to identify the constraints to future growth and determine appropriate strategies to address these constraints. This review and plan for the sunflower industry will also have the broader role of providing the industry's priorities for the AOFs second five year strategic plan which is currently being developed.

Australia is a net importer of sunflower oil and, whilst export is a potential opportunity, the immediate priorities of the industry are to meet domestic demand. It is recognised, however, that exports may be important to certain production areas and, as such, this review looks briefly at global opportunities as well as domestic issues. This review should be considered in conjunction with two other projects the AOF has recently completed or has in progress. These are:

- Review of the High Oleic Oilseed Industry and Options for Growth; and
- Review and Identification of International Opportunities for Australian Oilseeds.

The first of these reports takes an in-depth look at the high oleic industry, with focus on high oleic sunflower. It examines the market opportunities, developments in research, the economic and agronomic performance at farm level and develops recommendations for the AOF in relation to supporting the growth of this industry.

The second project draws together some of the key data relating to growth in export markets for oils and fats, with particular focus on some of the smaller commodities. This project is still in progress.

Thus, this report firstly provides a review of the sunflower industry and highlights issues facing the industry. The next section filters this review into the core issues to be addressed and the final section provides priorities and actions to be addressed.

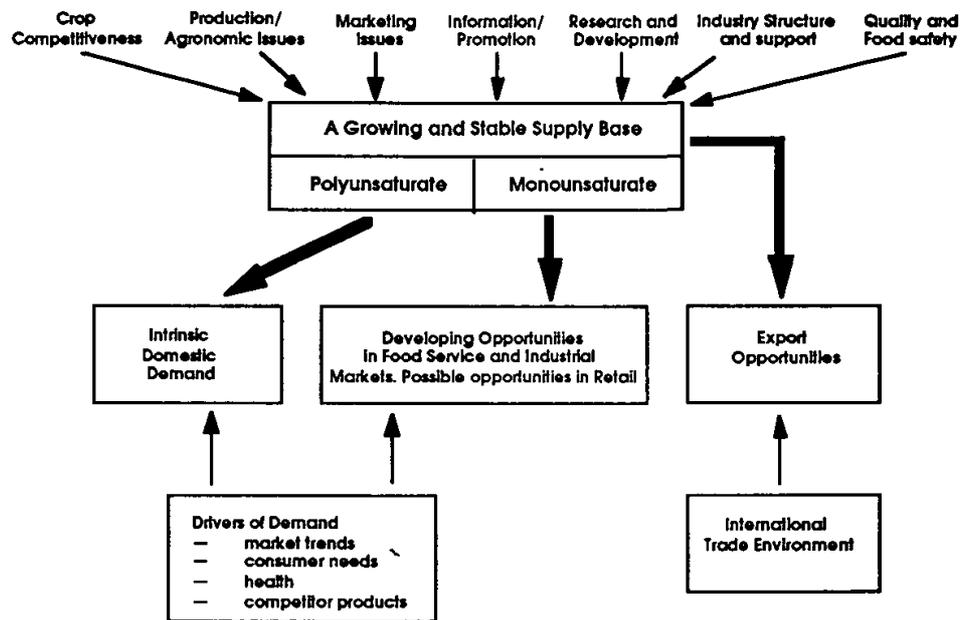
Industry in Review - Forces for Change

This section looks at the factors impacting on the industry in terms of its ability to achieve a stable supply of sunflower in sufficient quantities to, at least, meet domestic demand. Figure 1 illustrates:

- i) those factors that directly impact supply and ensure that customer needs are met; and
- ii) the factors driving demand.

These issues are discussed in more detail following.

Figure 1: Factors Influencing Industry Growth



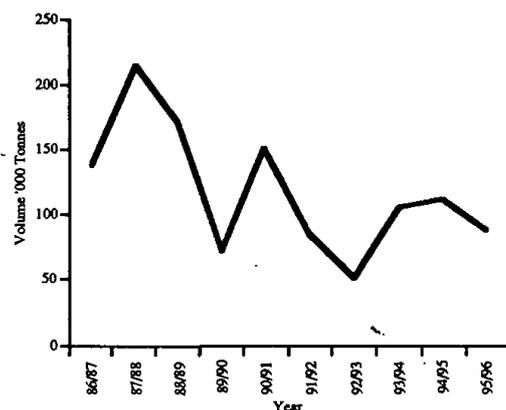
Supply

- *Domestic production has declined considerably over the last ten years*
- *In recent years, domestic supply has fallen short of demand with the shortfall being met by imports, primarily oil*

Production/Agronomic Issues

Australian sunflower production has declined considerably over the last ten years, primarily due to adverse seasonal conditions in the major production regions (refer to Figure 2). In 1995/96, production amounted to approximately 87,000 tonnes which is only around half that produced in 1990/91. The major production regions of northern NSW and central and south west Queensland, have experienced severe drought conditions over recent seasons which has adversely affected sunflower yield and, therefore, production and profitability.

Figure 2: Australian Sunflower



Source: ABARE, 1996

Whilst adverse weather conditions has been a key reason for the decline, other factors also came into play, such as:

- higher profitability of alternative summer crops, in particular, cotton and sorghum; and
- lack of grower confidence in sunflowers and poor crop image.

There has been some shift within the sunflower area to high oleic varieties.

During the early 1990s, domestic supply fell short of demand with the shortfall being met by imports. Sunflower oil imports, principally from Argentina, grew substantially in the early 1990s peaking at 35,000 tonnes in 1993. Post 1993, imports fell to approximately 11/000 tonnes as seasonal conditions and production improved. Despite this, the industry is still unable to consistently deliver quantities sufficient to meet the intrinsic domestic demand for sunflower seed.

Sunflower Industry Review and Plan

Sunflowers are produced predominantly in four regions throughout northern Australia, namely:

- Liverpool Plains, NSW;
- Northern NSW;
- Darling Downs, Queensland; and
- Central Queensland.

Some production occurs in northern Victoria/southern NSW and this region could have potential as an area of reliable supply.

These regions vary considerably in their nature, with production becoming less opportunistic as production moves south. For Central Queensland, it is very difficult for either growers or end users to plan likely production and, as such, this region is likely to remain very opportunistic in both its focus and in the way end users utilise product from the region. For the more southern regions, the challenge for the industry is to convert sunflowers from their current opportunistic position in the farmer's cropping program to a regular component of rotations. Given this regionalisation of production, grower needs do vary and this needs to be recognised in the industry's plan.

Key agronomic/production issues for growers are discussed following.

Issue	Comments
Updated information	<p>Much of the agronomic information pertaining to sunflower production is old and whilst some is still applicable, some needs updating to reflect changed cropping patterns. Key areas to address include:</p> <ul style="list-style-type: none"> — disease; — maturity; — nutrition requirements; — water/nutrition interaction; — headers/other equipment; and — water use efficiency. <p>There is a need to collate what information does exist and identify those areas requiring updating. This package of information needs to be better disseminated to growers.</p>
Gross margin and variety performance information	<p>Growers lack comparative gross margin data and variety performance data on which to make planning decisions.</p> <p>With all current information generated by proprietary companies, it can be difficult for growers to make accurate judgements on the best options and to assess information due to variation in test methods and interpretations.</p> <p>A major problem is timeliness of information and grower understanding of "statistical best practice techniques".</p>
Crop monitoring	<p>Collection of core benchmarking data for use in crop promotion and management</p>
Declining linoleic content	<p>Some evidence that linoleic contents are declining which is of concern to end users. This is being further explored by industry to obtain data on linoleic levels and identify possible reasons for this occurring.</p> <p>Possible reasons are time of planting and greater production in southern regions,</p>

Issue	Comments
Disease	Rust and alternaria are key diseases that can interrupt continuity of supply, thus, it is a high priority to maintain disease resistance. However, sclerotinia and, more recently, white blister fungus, are also important issues. White blister has been particularly evident this year and a watching brief by the QDP1 and others will be kept on future work by overseas workers. A pathologist from South Africa (where White Blister Rust is a major problem) is visiting Australia this year to talk to QDPI pathologists. There is some old Australian research data, but of interest has been reports globally of increased disease incidence.
Broadleaf weed control	Issues of registration and chemical companies should be lobbied to obtain these chemicals from overseas that are currently being used unregistered.
Birds	Permits for shooting birds will not be given by National Parks and Wildlife in two years.
Limited options for alternative use e.g. drought feed	Sunflower crops do not provide suitable waste material for cattle feed, a requirement of many producers. Cattle producers are likely to have sunflower/sorghum mix. Further options need to be identified including use of hulls.
Minimal ground cover post harvest	Potential erosion problems, particularly in areas of fine soil. Increasingly there is preference for zero till production, direct drilling sunflower after wheat.
Cost of production	Perceived to be expensive to grow compared to other crops and relative to returns, but this can change from year to year and needs to be related to productivity whilst high seed cost, generally lower fertiliser and chemical requirements.

Crop Competitiveness

Other summer crop options include cotton, sorghum and mung beans. Factors influencing grower decisions are:

- price;
- timing of rains;
- early industry failures;
- management skills;
- minimum till options;
- pest and disease potential; and
- feed options.

Sunflowers have the potential to be a good crop option with good management and not remaining as an opportunity crop.

Benefits of sunflowers are:

- double cropping of wheat possible with sunflowers and is an increasingly widely used technique;
- alternative crop in overall crop rotations;
- efficient use of soil moisture (tap root drags up deep moisture) creation of heavy soils;
- with a full profile of moisture, sunflower is the safer crop to grow;
- once a crop is established, there are few pest and disease problems; and
- disease break and grass crop based rations.

Information and Promotion

Currently grower perceptions and image of sunflowers is poor, with many describing it as a "weed". As a result/ the crop requires the key industry organisations (the ASA and AOF) to take a more proactive role in promoting the crop, highlighting success stories and dispelling built up beliefs about the crop's performance.

Up to date agronomic and ongoing benchmarking information needs to support the "talking up" of the crop and is critical to building grower confidence in the industry.

Communication throughout the entire production chain is essential to the development and growth of the Australian sunflower industry. Whilst there are linkages in place, many are informal and whilst communication may occur from one link to the next, it does not always occur throughout the chain.

At the other end of the chain/ there is a need to educate consumers about different characteristics of fats to avoid confusion and increase demand. This is discussed in more detail in relation to factors influencing demand.

Marketing Options

Price variability and risk management are key issues identified by growers as a weakness in the sunflower industry. As noted, for most growers, the decision to plant sunflowers is price driven. Growers across all regions expressed concern at the domination by one buyer and the reduced selling options in comparison to other crops. This was less of an issue in the Liverpool Plains where alternative buyers have a greater presence.

All growers were concerned about the price movement that occurs throughout the growing season. Whilst generally understanding the reasons for it, forward contracting is regarded as too risky on a tonnage contract by most growers. This is particularly the case in Central Queensland. Hectare contracts were preferred in all regions.

Growers expressed the wish to explore the possibility of an early season market commitment from the major buyers (essentially Cargill) which would provide some indication of a minimum or floor price for growers. This could be done through a number of mechanisms ranging from pools to contracts. The possibility of longer term production contracts for specified market tonnages from favoured geographic areas could also be examined. The assessment of marketing options and risk management tools for oilseeds growers is broader than sunflowers although concentrated in this commodity sector where there is essentially only one buyer, AOF could possibly initiate a project to review marketing options available and explore the potential of contracting production in target geographic areas e.g. Darling Downs, Liverpool Plains and Northern NSW- Other options identified for market risk management were provision of independent market advice at pre-season grower meetings, the role of quality assurance in niche markets, independent crop promotion at strategic times to support market needs and improving grower knowledge of market end use. These are all possible initiatives to help maintain continuity of supply at competitive prices.

However, it is also worth noting that sorghum and wheat prices have, in recent years, shown increased volatility. This is due, in part, to buyers holding lower opening stocks.

Research and Development

- *Commitment to disease research is critical to successful develop of the industry*
- *GMO technology may provide opportunities to increase Australia's production capabilities*

Pacific Seeds, Pioneer and Ag-Seed are the three major seed breeding organisations involved in the Australian sunflower industry. The major focus in relation to sunflower research and development is to increase profitability and lower the risk to the growers so that ultimately, the industry can maintain or improve its competitiveness against other enterprises.

The main research priorities for sunflower crop currently are:

- improve hybrid yield;
- improve oil content;
- improved stress/drought tolerance;
- improve disease resistance; and
- continued research on high oleic hybrids which involves matching sunflower oil more closely to market trends and paddock yields to match polyunsaturated varieties.

The major research area currently funded through CRDC is development of germplasm for rust and alternaria resistance. This is a priority for the industry and the program should continue to be supported by the CRDC. Other issues that are being considered in relation to germplasm development are drought tolerance and salinity tolerance.

GMO or biotechnology may be a major factor in the future contributing to the growth of the industry and the ability of the industry to remain internationally competitive.

The main focus for sunflower genetic transformation is disease resistance and modified fatty acid profiles. More research is required to determine a balance between optimum frying flavour, stability and shelf life. In the past, a major objective of breeding and genetically engineering has been to develop oils with maximum low saturated fats with higher stability and shelf life.

There is some concern throughout the community as the ethical, social and medical involvement of biotechnology. Consumers may become fearful of genetically modified products in relation to their health. Therefore, it is important for the industry to implement appropriate consumer education programs.

The issue of GMO crosses all oilseed crops and will be an issue addressed in the AOFs five year plan. As such, it is not addressed in detail here.

Industry Structure and Support

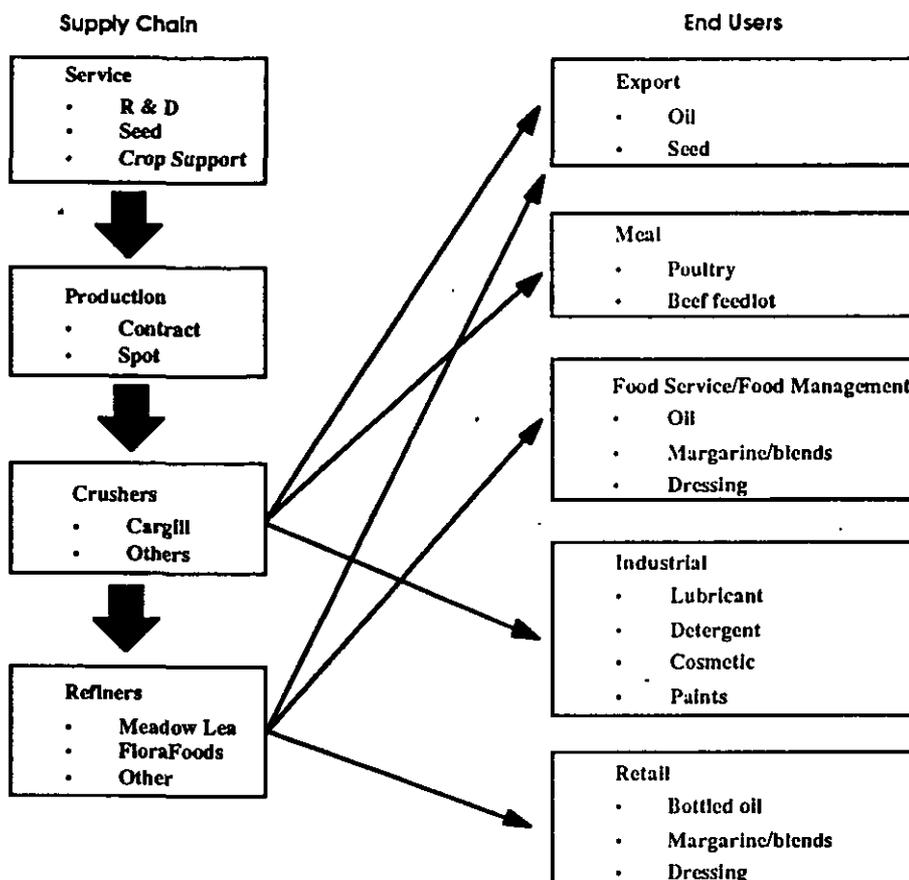
- *Grower perception that domination by one major player restricts their options*
- *Need to monitor requirements for crop segregation at farm, storage and processing level*
- *ASA to become more proactive*

Figure 3 shows the linkages and How of products within the industry. ASA is the key industry body that brings all sectors of the sunflower industry together and then through its linkages with AOF, participates in broader industry debate. The primary role of ASA is to promote the development of the sunflower industry and it needs to be more proactive in establishing and addressing industry priorities. The ASA is constrained by the reliance on voluntary service of Committee members and Secretariat. It may be possible to explore options with AOF for securing some further support to enable activities to be carried through to fruition.

The grower focus groups conducted as part of the development of this plan clearly highlighted that whilst growers were aware of AOF and ASA, they did not fully understand what they did/ the services offered or that they were adequately addressing grower needs.

The need for crop segregation primarily relates to high oleic sun. This was addressed in the AOF report on the high oleic industry. However, changes to the use of the National Heart Foundation tick is also focusing the refiners attention on the proportion of linoleic content in sunflowers and we may see in the future, segregation amongst the polyunsaturates also. This clearly adds costs into the system, but may be necessary to retain market share.

Figure 3



Quality/Food Safety

With increasing concerns over food safety, the agricultural industry is facing increasing pressure to introduce quality management systems in the production end of the supply chain. The introduction of quality standards is a key to improving the industry's international competitiveness. A HACCP based quality assurance system across the sunflower industry would have a number of benefits including;

- identification and adoption of best practice procedures throughout the industry;
- identification of 'critical points' which affect the ability to support the required end product, product efficiency and profitability;
- identification of methods of 'hazard' reduction thus improving ability to serve the end user and improve overall business efficiency;
- increase the industry's competitiveness; and
- increase the ability to consistently meet required customer quality standards.

The major sunflower processors and refiners have already introduced ISO or HACCP based quality management systems. Quality assurance is an issue that is likely to become increasingly important as end users/ both domestic and export, demand higher quality products.

Demand

- *Despite strong growth of monounsaturated oils, such as canola oil and olive oil, there remains an intrinsic demand for around 150,000 tonnes of sunflower seed equivalent*
- *The main emerging opportunity for sunflower oil is in relation to high oleic sunflower oil*

The domestic market accounts for approximately 90 per cent of Australian sunflower production. Demand for sunflower oil is primarily driven by its polyunsaturated properties. Sunflower oil is used in polyunsaturated margarine, mayonnaise, salad dressings and cooking oil. It is also used in the manufacture of frozen fried foods such as french fries and fish fingers.

Domestic usage of sunflower oil has declined from 72,400 tonnes in 1991 /92 to 50,000 tonnes in 1996. Domestic demand for polyunsaturated oil, of which sunflower oil was traditionally high, has declined due to increasing preference for monounsaturated oils such as canola oil and olive oil.

However, the decline in demand for sunflower oil is projected to be offset by the growth in the demand for monounsaturated (high oleic) sunflower oil. The industry estimates that monounsaturated sunflower oil will represent approximately one quarter of sunflower oil produced in the short term, with potential to increase considerably beyond this.

The demand for meal is relatively small in comparison to other meals. In 1995/96, domestic demand amounted to approximately 57,000 tonnes. The meal, is used as an animal protein supplement, particularly in the intensive poultry feeding industry. Sunflower hulls account for around 10 per cent of the seed and have limited commercial use. The industry would benefit if a commercial market for the hulls could be developed. An issue of concern that has emerged over recent seasons is the low protein content of the meal. This significantly reduces its value, as the next value of the seed is determined by its oil and meal value-

The Australian sunflower industry is unique in comparison to many other crops in that it will, at times, export seed, even though domestic supply falls short of demand. This is a result of the location of production areas and the potential for Central Queensland to generate significant quantities of seed in certain years. In 1991, approximately 47,000 tonnes of sunflower seed was exported to Mexico, however since then, the volume of exports has declined to approximately 10,000 tonnes with the majority is now directed to Japan.

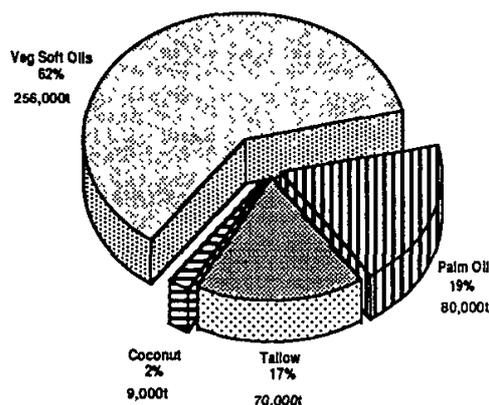
Market Trends

- *Decreasing overall consumption of fats and oils has been offset by a growth in the development of new markets*
- *Food service and industrial markets offer the most potential for growth in demand for sunflower oil in the short term as it shifts from hard oils and tallow towards soft oils*
- *Retail market has declined and is unlikely to show growth in the medium term*
- *The sunflower meal market is unlikely to grow in the short to medium term and requires the protein content to be enhanced*

Domestic Market

The Australian fats and oils market for food use currently amounts to 415,000 tonnes of which palm oil and tallow have the greatest market share (19 per cent and 17 per cent respectively). This break up is shown in Figure 4.

Figure 4: Domestic Consumption Fats and Oils, 1996



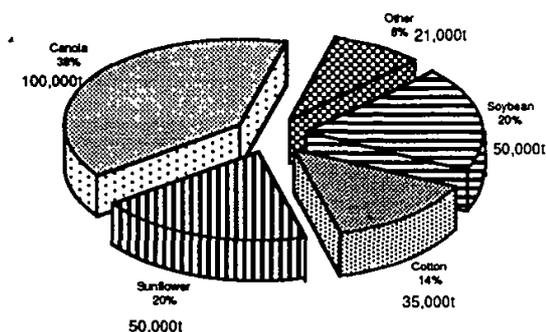
Source: Meadow Lea, 1996

Soft oils such as soybean/ canola, sunflower and cottonseed are increasing their share of the total fats and oils market. Consumption of soft oils has increased from 16.7kg in the late 1980s to a current level of 20.1kg per annum.

Australian usage of vegetable oils is behind that of other developed countries such as EU (41.5kg) and Canada (35.2kg), but similar to the US (17.2kg).

Figure 5 shows the break down of consumption of soft vegetable oils with canola currently dominating the market with 38 per cent market share.

Figure 5: Consumption of Soft Vegetable Oils, 1995/96



Source: Meadow Lea, 1996

In recent years/ the growth in the Australian fats and oil market has remained static/ despite an overall trend towards reduced intake of fat as consumers embrace low fat diets. Fortunately/ the growth in development of new markets for fats and oils has offset the decline in overall consumption.

Table 1 shows the food service sector represents the largest market for edible fats and oils.

Table 1: Market Segment and Share

Market Segment	Market Share %
Food Service	65
Retail	32
Industrial	3

The food service market offers the most potential for soft vegetable oils and, in particular, sunflower oil. Annual expenditure on fats and oils in the food service market segment is approximately \$122.4 million. The overall food service market has been growing by 9 per cent per annum in recent years.

Utilisation of vegetable oils by the food service sector (which includes major food processing manufacturers, restaurant chains, independent food outlets and institutions) is approximately double that of the retail sector and has been growing at a rate of 4 to 5 per cent per annum. To date, palm oil and tallow represent the majority of the market, however, food manufacturers are slowly moving away from the "cheapest oils available" towards healthier alternatives such as high oleic sunflower oils.

The opportunities for high oleic sunflower oil in the food service market are addressed in detail in the AOF high oleic report and readers should refer to this report for details.

The retail fats and oils market, currently estimated to be worth \$640 million, has been declining. Although the overall retail food market is growing by 3 per cent per annum, the market for fats and oils has declined by 6 per cent (from 139,000 tonnes in 1994 to 130,800 tonnes in 1995). In relation to margarine, the market value is increasing, but the market volume is declining. The retail market is likely to show little growth in the medium term, although, there may be some

growth in salad dressings and bottled oils. Retail sales have dropped because consumers are eating less fats and oils at home in accordance with health recommendations.

Export

In recent years, the Australian sunflower industry has exported small volumes of sunflower seed to Japan and Mexico- Australia is unlikely to be competitive against the European and South American countries in the world commodity 'sunflower' markets, however, there are opportunities emerging for Australian exporters in value added niche export markets, particularly in Asia. Demand for oilseeds and their by products by Asia (and the Sub ' Continent) is growing rapidly and the trend is likely to continue. The main factors driving growth in Asia are:

- very large and rapidly rising population;
- rising incomes driven by economic growth;
- increased consumption of food, both traditional and westernised;
- increase expenditure in food service;
- rising consumption of fats and oils;
- reduced trading barriers.

Australia's close geographical proximity and a reputation as a 'clean green' producer of agricultural products, gives the Australian sunflower industry a competitive advantage in higher value markets. Such markets could provide considerable potential in the longer term once the industry reaches a position where production exceeds domestic demand.

Again, readers should refer to the AOF high oleic report for consideration of export opportunities for high oleic sun oil and to the AOF International Report for a general coverage of opportunities for seed, oil and meal exports.

Meal

In relation to sunflower meal, the domestic market has been limited by unreliable supply and lack of cost competitiveness. Sunflower meal is less competitive in the southern markets due to the cost of transportation and the availability of alternatives. The seed (undehulled) is lower in protein and higher in fibre than other protein meals. Dehulling increases its protein content/ but it also the cost. Sunflower meal is rapidly losing market share to higher quality and higher protein sources such as canola meal, imported soybean meal and pulses. The sunflower meal market is unlikely to grow significantly unless the protein levels can be improved. It should be noted, however, that Australia has a deficit of high protein meal and thus, there will always be a market for sunflower meal albeit at a discount to the higher protein meals.

Consumer Trends and the Health Message

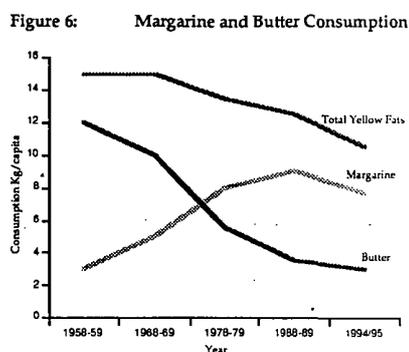
- *The nutritional message "eat less fat" has proven to be a threat to the industry as a whole*
- *Consumer confusion about the difference between the 'good fats and bad fats'*
- *Margarine has won substantial market share from butter over the past 20 years, but both segments are now declining*
- *A significant movement towards monounsaturated oils within the retail market, i.e., canola. Olive oil dominates the retail market in terms of value with canola oil also increasing its share*

As noted above, the spreads market has remained relatively static until 1994 when consumption began to decline (by 6 per cent in 1995) due to a combination of:

- increasing health concerns leading to reduced fat diets;
- changing eating habits due to changes in lifestyle (less cooking at home and increased eating out-of-home);
- competition from other foods as Australia's population become increasingly multicultural (many ethnic meals do not include the use of butter/margarine);
- changing image of spreads by new generation; and
- lack of promotion.

Over the last fifty years, consumers have moved away from animal fats towards vegetable oils and fats. This trend was brought about as a result of the discovery that the type of fat consumed was a major factor influencing blood cholesterol levels linked to heart disease. It also became known that monounsaturated and polyunsaturated fats found in oilseeds actually reduce blood cholesterol and this is the main reason why consumers have moved away from butter towards margarine.

Figure 6 shows the dramatic decline in consumption of butter since the 1950s. In 1995, the total spreads market amounted to 129,700 tonnes of which margarine, butter and dairy blends represented 70 per cent, 18 per cent and 10 per cent respectively.



Source: ABS

A recent study in the US revealed the younger generation, who were brought up on margarine, actually prefer not to eat butter. Whilst it is unknown whether this trend is occurring in Australia, there has been a distinct displacement of yellow fats over the last 20 years. Although it is true that, to some extent, the spiralling demand for butter has been contained in recent years.

A more concerning trend for the oilseed industry, is the increasing preference of consumers to cut fat out of diets altogether. This is particularly evident in relation to yellow spreads.

Within the margarine segment, there has been a movement away from polyunsaturated oils towards monounsaturated oils. Polyunsaturates, which represent approximately two thirds of the margarine market, are losing market share to monounsaturates. In an environment where the overall spreads market decreased 8 per cent during 1995, the monounsaturated spreads market segment increased by 7 per cent at the expense of poly unsaturates and other types of spreads. Strong growth in consumption of olive oil is evidence of the movement towards monounsaturated oils.

The 'health' trend is also beginning to influence the food service and food manufacturing market. Community health organisations such as the National Heart Foundation and Government officials have urged the food industry to move towards low saturated fats to reduce heart disease. There is a push for the industry to stop using tallow or palm oil.

More recent attention is focused on the amount of trans fatty acids in margarine, although this research is primarily in the health professional arena rather than the consumer. There is a need for the industry to be aware of these upcoming health issues.

Despite the health issue creating many opportunities for vegetable oils such as sunflower, it has also been a detriment to the vegetable oil industry in that many consumers are confused about the difference between "good fats and bad fats", but most understand the message "eat less fat" which has also been widely promoted.

Competition

- *Canola oil is increasing its market share of soft vegetable oil market*
- *High oleic sunflower oil is providing opportunities to win share of the food service and industrial markets due to its health and technical properties*

Canola oil is a predominately monounsaturated oil and is considered healthier than soybean and polyunsaturated sunflower oils. It is primarily used in margarine, salad dressings and as a cooking oil. Canola oil has increased its market share in the retail market in recent years, at the expense of soybean and polyunsaturated sunflower oil, due to the trend towards monounsaturated oils.

Although fats and oils each have their own characteristics which are suited to different end uses, they can be readily substituted depending on the price and availability. Major competitor products to sunflower oil in the Australian fats and oils market are palm oil, tallow, canola oil/ soybean oil/ cotton oil, olive oil and butter.

Palm oil and tallow are currently the primary fats and oils used in frying by the food service and food manufacturing industries. Palm oil, which is most commonly used in food manufacturing has many advantages such as stability, price, versatility and availability, however, it is high in saturated fat. Palm oil is imported from Malaysia and Indonesia and represented almost 100,000 tonnes in 1995/96, with domestic usage increasing steadily since the late 1980s.

Tallow, the most widely used fat source in the food service industry, has a long shelf life, but it is also nutritionally poor. Usage of both palm oil and tallow is steadily declining as the food service and food manufacturing industries turn to healthier alternatives.

High oleic sun oil has the potential to displace a significant proportion of the imported palm oil. High oleic sunflowers were introduced commercially in Australia in 1992. Plantings are projected to reach 40,000 hectares in 1996/97, yielding approximately 16,000 tonnes of oil.

Readers should refer to AOF high oleic report for detailed coverage of this potential.

International Trade Environment

- *Implementation of GATT is likely to benefit the Australian sunflower industry*

Over the last ten years world sunflower seed supply has increased by almost 30 per cent to approximately 25 million tonnes in 1995/96. Major producers of sunflower (in order of volume) are the former Soviet Union/ Argentina, the EU, Eastern Europe, China and India with most of the crop is consumed domestically in these countries (Argentina excepted). Major exporters of sunflower seed are the former Soviet Union, Argentina, Eastern Europe and the United States. Major sunflower seed importing countries are the EU, Morocco and Turkey.

Sunflower oil is a major commodity traded on the world market and it is currently ranked fourth in terms of volume behind soybean, palm and canola/rapeseed oils. In 1995/96, world exports amounted to 2.7 million tonnes. Major exporters of sunflower oil are Argentina (represents approximately half world exports), the EU, Eastern Europe and the former Soviet Union. Argentinean sunflower oil exports have almost doubled since 1992/93. In 1995/96, world imports amounted to 2.8 million tonnes and the major importing countries are Iran, Turkey, South Africa, Mexico, the EU and Eastern Europe.

One of the major factors influencing the international agricultural trading environment will be changing trading policies as a result of the Uruguay Round of GATT negotiations. Under the GATT agreement, reduction in trading barriers are required, and are due to be completed, during the 2001/2015 period. Under this agreement, reductions in industry support measures such as farm subsidies will occur, especially by the members of NAFTA (North American Free Trade Area), APEC, ASEAN (Association of South East Asian Nations) and the EU.

The impacts of reduced trade barriers as a result of GATT/WTO negotiations are likely to be:

- a shift in trade of seed to trade in value added products;
- increased volatility in volumes and prices; and
- creation of new export opportunities.

Key Issues

The key issues highlighted here have been developed against the background of the industry wishing to increase both volume and stability of supply. Whilst it is recognised that at the broader level, there are key issues related to consumer trends/ this report is concerned more specifically with the needs of the sunflower industry.

Key issues for the industry are:

- Crop Image and grower confidence
- Profitability and price risk
- Inconsistent supply
- Improved Information flows
- Disease resistance
- Growth in high oleic sunflower production
- Consumer awareness of benefits of sunflower oil
- Quality and food safety
- Export market - emerging opportunities

Achieving a Growing and Stable Industry

Key Goals

The key goals for the industry are to:

- Increase supply to consistently meet domestic demand (i.e. 150-200,000 tonnes annually)
- Increase the industry's competitiveness (on-farm and at end use)
- Improve industry communication and linkages
- Improve consumer support for sunflower based products

Strategic Objectives

- Improve grower confidence and Image of the crop
- Produce adequate volumes of consistent product with quality and characteristics required by consumers
- Stimulate demand for sunflower products in domestic and export markets
- Ensure investment in R & D is maintained
- Increase marketing options available for growers
- Improve industry communication and support

Objective	Achieve Success Through	Key Activities
Improve grower confidence and image	"Talking up" and promoting the industry Providing information and crop management support	<ul style="list-style-type: none"> ▪ Provision of key financial and agronomic information ▪ Variety performance data ▪ Promotion of positive crop image and opportunities ▪ Crop benchmarking data
Stimulate demand for sunflower products in domestic and export markets	Creating a positive consumer perception of sunflower products Providing technical and health benefits of high oleic sun to the food service sector	<ul style="list-style-type: none"> ▪ Use the food media to develop a positive image of sunflower oil ▪ Support the AOFs broader industry campaign that oilseeds are a natural product and to reduce confusion about fat messages ▪ Implement recommendations of the AOF high oleic report
Maintain R&D investment	Ensuring effective communication of industry priorities Supporting close relationship between private breeders and public researchers	<ul style="list-style-type: none"> ▪ Ongoing support for disease resistance program ▪ Consider new projects such as commercial utilisation of hulls ▪ Support crop development program
Marketing Options (Should be noted that the focus here is an industry one which may have different outcomes to maximising returns for individuals)	Ensuring growers have as wide a range of marketing options as practical Improving grower knowledge of markets, marketing options and risk management tools	<ul style="list-style-type: none"> ▪ Assess need for an AOF project to investigate marketing options and risk management tools for growers ▪ Provision of independent marketing advice for growers
Improve industry communication and support	ASA to be more proactive and work closely with AOF	<ul style="list-style-type: none"> ▪ Regular forums to develop industry priorities ▪ Newsletter and other material ▪ More active involvement in AOF activities

Improve Grower Confidence and Crop Image

Tasks	Responsibility	Estimated Cost	Funding Sources
<ul style="list-style-type: none"> ▪ provision of key financial and agronomic information: ▪ independent collection of core data from selected crops/ rotations to review gross margins, water use efficiency and nutrient removal. This is to assess implications for crops as cropping patterns change and yields increase ▪ packaging of information, both old and new e.g. white blister, bird control. This will require periodic review through TopCrop/department advisors to update grower understanding through information notes, crop alerts, workshops or field days ▪ crop data required for group analysis and promotional opportunities ▪ variety performance review ▪ Develop positive crop image and promotion of market opportunities ▪ Collect success stories and grower case studies for use in promotion ▪ Explore options for dissemination of this with seed companies who have such data ▪ In conjunction with AOF and refiners, seek opportunities to promote sunflower based products through the food media ▪ Investigate, in conjunction with AOF, need for an on-farm quality assurance system to meet customers food safety and quality requirements ▪ Promote sunflowers as an environmentally friendly crop (low chemical usage) 	<p>ASA to co-ordinate the program, i.e. develop terms of reference, employ regional co-coordinators, provide link with AOF and CROC</p> <p>In Darling Downs/Northern NSW and Central Qld, employ on a part time basis a regional consultant who can facilitate and carry out the tasks as listed. This may be assisted by an advisory group of growers in each region to provide project direction.</p> <p>In the Liverpool Plains, it may be appropriate to provide some support to local department personnel to assist in data collection, but support in terms of field days, workshops etc... may not be as great. One of the regional consultants should be given overall responsibility to co-ordinate activities and compare data and lessons from each area. These regional co-ordinators to work closely with the seed companies, department personnel and CRDC</p> <p>Some additional support in terms of a freelance journalist may be required to generate media presence</p>	<p>\$20,000 for regional co-ordinators in Darling Downs/ Northern NSW and Central Qld</p> <p>\$10,000 for Liverpool Plains</p> <p>\$20-30,000 for development and distribution of support material</p> <p>\$5,000 for freelance Journalist</p>	<p>AOF in Year 1 to run pilot program and then GRDC in subsequent years.</p> <p>Funding should be provided over a three year period to allow impact to be adequately assessed</p> <p>Seed companies</p>

Stimulate Demand for Sunflower Products

Tasks	Responsibility	Estimated Cost	Funding Sources
<p>Linked to above tasks in terms of working with AOF and refiners to promote image through food media and to investigate quality system</p> <p>Meet with AOF to discuss the high oleic report and evaluate recommendations relating to product name, standards and promotion</p>	<p>ASA in conjunction with AOF and the refiners to co-ordinate the program, i.e. develop terms of reference, employ regional co-ordinators, provide link with AOF and CRDC</p>	<p>Initial discussion within existing costs. If significant promotion program required, then this would need to be costed separately.</p>	<p>AOF, ASA and refiners</p>

Maintain R & D Investment

Tasks	Responsibility	Estimated Cost	Funding Sources
<p>ASA to continue close liaison with GRDC to ensure industry priorities are supported. ASA could collate industry priorities through the regional rep development coordinators and communicate through a CRDC sponsored committee comprising CRDC, ASA and AOF</p> <p>Utilise regional growers groups and the ASA to identify industry priorities and communicate these through AOF and directly to the GRDC</p>	<p>ASA and regional crop development coordinators who can provide feedback from grassroots level</p>	<p>No additional costs. May be some requirement for travel to meetings etc.</p>	<p>ASA</p>

Marketing Options

Tasks	Responsibility	Estimated Cost	Funding Sources
<p>Investigate possibility for project to consider marketing options</p> <ul style="list-style-type: none"> - Liaise with crushers and marketers to explore potential for expansion of marketing options and with risk management companies - Develop terms of reference for a project if considered viable. This to include examination of other industries as case studies <p>ASA and AOF to explore option of providing an independent marketing expert at grower meetings pre planting</p>	<p>AOF in conjunction with ASA</p>	<p>Cost of marketing options project to be determined once terms of reference defined but expected to be in order of \$20-30,000</p> <p>If an independent market expert required/ would incur costs of time and travel. Allow \$5,000 per annum</p>	<p>AOF</p>

Industry Communication

Tasks	Responsibility	Estimated Cost	Funding Sources
<p>ASA newsletter - Three to six times per year</p> <ul style="list-style-type: none"> ▪ Regional focus with input from regional coordinators ▪ Distributed with AOF Commodity News to reduce costs <p>Annual publication providing a reference to the sunflower industry</p> <p>Continue sunflower conference</p> <p>Closer linkages with AOF and increase support for ASA secretariat</p>	<p>Newsletter and annual publication to be co-ordinated by ASA but may use external people to prepare</p> <p>Secretariat arrangements should be explored with AOF</p>	<p>Newsletter - preparation 510,000 plus printing & distribution</p> <p>Annual publication - preparation \$5,000 plus printing and distribution</p> <p>Secretariat</p>	<p>GRDC AOF Commercial sponsorship</p>