

**Pistachio Growers Association
Incorporated**

Strategic Plan

The Vision

A highly profitable industry that is sustainable and rewarding for existing growers and attractive to new growers.

The Mission

To produce quality pistachio nuts that excite snack food consumers.

Strategic Plan

Background Information

History

Commercial pistachio growing commenced in Australia in the early 1980's following a successful breeding program by CSIRO, Merbein. The new variety *Sirora* was released and found well suited to the conditions of the River Murray valley.

Current Farming Situation

There are about 40 growers mainly located along the River Murray. Generally, those orchards that have survived the pistachio learning curve and long juvenile phase, are doing well. The climate and soils have proven satisfactory for pistachio production.

There is a small number of growers in central NSW where higher rainfall has induced fungal problems. There are a few growers in southern Victoria where lower summer temperatures have limited production. There are growers in Western Australia just getting into production.

Total area planted is about 700 hectares.

There are four large orchards. Two are each about 140 hectares and are both in good production. One of 200 hectares is starting (in 2002) to produce good quantities. The fourth large orchard of 80 hectares is not yet achieving economic results.

There are about another ten orchards of 10-15 hectares - the size required to make a living solely from pistachios. The remaining 30 growers each produce less than 5 tonnes dry per annum from 1 to 5 hectares. These are mainly successful growers with mixed fruit blocks. There are very few small "hobby" farmers

No major new plantings are occurring due to fears of a bacterial disease and the poor economics of a new pistachio orchard - adverse tax treatment and long juvenile phase.

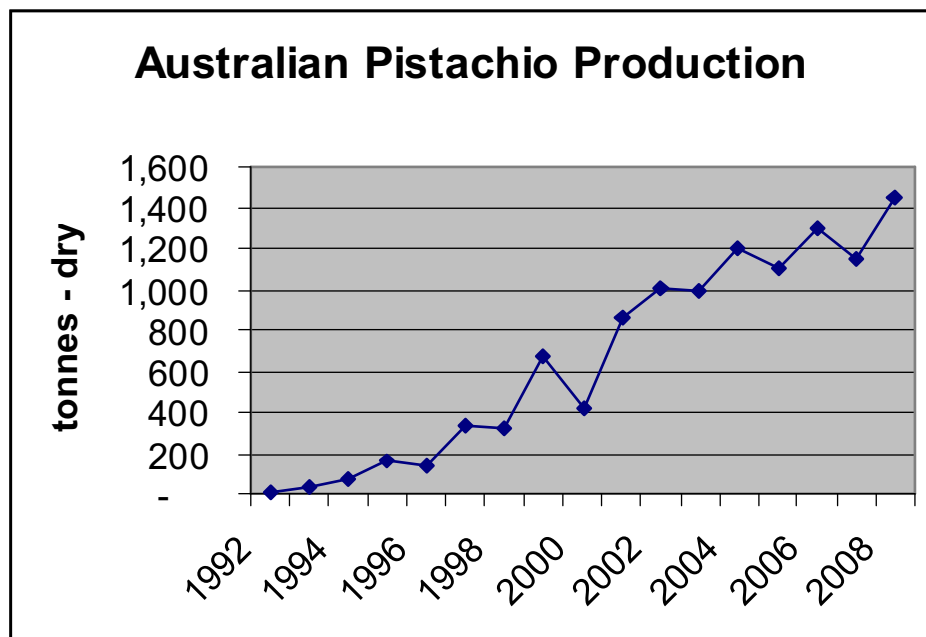
Production

This paper largely deals with the production and marketing of dried pistachios.

There is also a market for fresh pistachios fruit (in hull). Currently sales are estimated at 20-30 tonnes from 10 to 15 small growers selling independently of each other.

Current production is about 1,000 tonnes per annum. This is expected to rise to an average of 1,100 to 1,200 per annum with peaks to 1,400 tonnes in on-crops and 900 tonnes in off-crop years.

Farming practices for pistachios are improving and they can be expected to improve further. The yield estimates included in the production projections assume yields that are currently achievable. They also assume only a very small contribution from 80 hectares at Kaniva. Should the absolute optimum yields be achieved, then average crop size could rise to 2,000 to 2,300 tonnes per annum.



Source: APPC records and internal projections

Production Efficiency

The best Australian orchard is now close to the top Californian orchards for yields i.e., 5 tonnes/ha in an on-crop and 3 tonnes/ha in an off-crop on trees over 12 years old. Generally, Australian orchards are producing about 3 tonnes/ha in the on-crop and 2 tonnes/ha or less in the off-crop. There is considerable room to improve.

The improvement is likely to come with improved nutrition and water usage that are more directed at Australian soils and conditions together with better disease management.

Market

Most pistachio production worldwide is directed at the consumer snack food market rather than the ingredient market. The snack food market for pistachios effectively also buys the shells at the same price! Almonds, peanuts, cashews, macadamias etc all only sell the kernel. About 85% of the Australian crop is sold into the snack market.

There is a small ingredient market that is supplied by the kernels obtained by shelling the non-split and reject in-shells. The Australian *Sirora* variety has relatively few non-splits compared to most commercial varieties (<10% compared with ~15-20%).

Kernels are typically priced at 150-160% of the inshell price. To provide equivalent returns to first grade splits, kernels would need to be priced at 220% of the inshell price to cover the shelling costs and the 45-48% yield. Hence supplying the ingredient market is not as rewarding as supplying the snack food market.

Current (2001/2002) Australian consumption is about 1,600MT per annum, down from a peak in 1998 of 1,800. The decline has been due to high prices (largely driven by the weak AUD) and lack of promotion (why should Australia expensively promote pistachios when we did not have them to supply?). The market could be easily expanded back to 1,800 tonnes plus, per annum. Cashews, the other nut principally sold as a snack, is over 5,000 tonnes per annum.

The world market for pistachios is about 350,000 tonnes per annum. World production is projected to increase to 500,000 tonnes by 2007 (Source : International Nut Council). World consumption is rapidly rising in Eastern Europe and Asia. It has declined in Western Europe following aflatoxin problems with Iranian pistachios.

Australian production has been largely directed at the domestic market. Australian domestic prices reflect the landed cost of imported pistachios, i.e., above the prices we could expect from importing countries such as Europe.

No hard research is available as to the demographics of consumers of pistachios. In the 1980s it would have been assumed that there would be a disproportionate share of migrant families of Mediterranean origin as the major consumers. With pistachios now in the fruit and vegetable section of main chain supermarkets, this narrow base has widened to Australians of most ethnic and socioeconomic backgrounds. There certainly remain few Australians who do not know of pistachios and very few who would eat this "snack nut" without removing the shell- this was a common event in the 1980's.

Consumer research conducted by Horticulture Australia Ltd (HAL) and the Australian Macadamia Society (AMS) in 2002 showed that consumers saw pistachios as “up market, fun with a party image”. Macadamias are launching a major consumer campaign, with big dollars behind it, in late 2002 to challenge this pistachio position.

Competitors

The competitors for pistachios are other snack foods generally including chips, confectionery and the other snack nuts, particularly cashews

As an industry, Australian production “competes” with pistachios from Iran and California. APPC has maintained a competitive pricing policy with imports. The natural tendency of Australians to buy Australian product provided that it is similar quality and similar price has meant that Australian production has dislodged imports, fairly seamlessly, as production has increased over the last decade.

There remains some serious competition from Iran. The Iranian varieties and their processing result in a nut of different appearance and different, perceived at least, flavour. Iranian pistachios tend to be lower priced than Californian, in part because Iranian are excluded from the USA market (remnants of the 1970s embargo) and restricted in Europe because of their inability to satisfy EU aflatoxin limits. In the Arabic Australian community, a major consumer group, Iranian are preferred for both price and tradition reasons.

The Iranian market is serviced by a number of importers. They vigorously defend their historical business. The importers have strong links to the nut wholesalers for reasons of history and financing. This link will be a difficult, and expensive, nexus to break as Australian production expands and we need to move into this sector.

Relations with individual Iranian growers and packers is good. The Iranians have been very open in showing Australian growers their farming techniques and the processing systems.

The Californian industry is also a “competitor”. The Californians have industry money to promote pistachios in expanding markets. These funds are being used in Australia for in store competitions and media advertising. APPC and the Californians have agreed in 2002 in principle to work together to promote pistachio sales. Both industries accept that all growers compete with each other and the key is to expand total demand.

Relations with individual Californian growers and researchers are very good. There is a healthy swap of information and techniques.

Supply Chain

Most growers deliver their crops to Australian Pioneer Pistachio Company (APPC) at Robinvale for hulling, drying, sorting and sale. A few growers hull their own crops and the crops of one or two small neighbours. Most of these growers, after hulling and drying also deliver the crops to APPC for sorting and sale.

A very small number of growers sell their own dry crops. None of these growers has more than 5 tonnes pa of dry nuts. The total quantity could be well below 5 tonnes. Exact figures are not available.

APPC effectively handles almost the entire Australian crop (>97%).

Most nuts are sold directly by APPC to the major supermarkets (>80%). A minority of the crop is sold through the wholesale nut trade. Almost no dry crop is sold through the fresh fruit markets although these are the major channels for fresh in hull pistachios.

Most Australian pistachios are sold loose in the produce departments of the supermarkets. A minority is sold in consumer prepacks. The reduction in the packing costs and cutting out several levels from the traditional bagger model did, in the 1990s, result in lower consumer prices and higher sales. The supermarkets have recently captured this margin by increasing consumer prices. Supermarket gross selling margins have increased from 25% to over 50% between 2000 and 2002.

The two largest growers own APPC. These growers largely run APPC as a cost centre. The stated policy of APPC is to handle the crops of other growers at close to cost to ensure that all Australian pistachios can be presented as a uniform product to the Australian market.

The fresh pistachio fruit is sold as a refrigerated product through the fresh fruit and vegetable wholesale markets in Sydney and Melbourne. Specialist fruiterers who cater for people of eastern Mediterranean origin e.g. Turkey, Iran, Syria, Lebanon etc, are the major buyers. Currently a small quantity is being niche marketed through two supermarket chains in NSW .

Benchmarks

Whilst Australian growers and APPC maintain close contacts with the Californian industry and the world industry, no formal benchmarking reviews have been conducted.

Five to ten Australian growers have attended each of the last two Pistachio Short Courses run by the University of California at Davis. The industry researchers also attend those short courses as well as attending the biannual GREMPA Almond and Pistachio Symposium.

People and industry resources

The Australian pistachio industry now has several people with about 20 years experience in the growing of pistachios. The industry has an active PGAI Committee (Pistachio Growers' Association Inc) that in 2001 underwent a generational change. Like all small industries we would benefit if more growers took an active part.

Most growers have had a career experience of growing other horticulture crops such as stone fruits and grapes. Most are "good" farmers.

One of the Directors of APPC has had over 25 years experience in selling of nuts in the domestic and export markets.

A private horticultural consulting firm, Scholfield Robinson, has taken a strong interest in pistachios and provides extension services to most growers as the various State departments of agriculture have withdrawn from this type of grower support over the last decade.

NRE Victoria assists the industry by basing the pistachio industry researcher, Cathy Taylor at Sunraysia Horticulture Centre. Whilst most of the costs associated with this position are met by the PGA and HAL, NRE does contribute overheads. As well as performing research, Cathy also provides some general information to growers on pistachios.

The PGAI encourages attendance at the UCD Pistachio Short Courses rather than running its own "how to grow" courses.

There are no mentoring programmes; youth encouragement awards; or promotion of any gender bias in who should grow pistachios or participate in the industry association.

Industry Organisation

There is a single national Pistachio Growers' Association Inc (PGAI). Almost all known growers are members. There are no formal state or regional groups although the Western Australian growers tend to operate such a discussion group for obvious geographic reasons.

Whilst not all growers are *actively* involved with the PGAI, there is no evidence of dissatisfaction with the PGAI or evidence of rival or competitive sub groups being formed.

Almost all growers of dry pistachios support the PGAI Research Fund by way of a voluntary contribution. Only two growers (<1% of dry production) failed to contribute in 2001. The contribution rate is quite high, about 3% of farm gate value.

Only a very small number of growers who sell their crops as fresh pistachios make the voluntary contribution to research. Whilst not a major loss of revenue, it is a major cause of annoyance on equity grounds to the vast majority of growers.

The PGAI is an active member of the Australian Nut Industry Council (ANIC). The PGAI sees the larger network of ANIC being able to achieve more than a small industry can ever achieve.

The PGAI has a quarterly newsletter that includes professionally prepared seasonal notes. The newsletter keeps growers informed of developments with the research projects and other industry news.

APPC issues a market report to all growers twice a year and monthly to members of the Pool.

Biosecurity

There is no pistachio emergency plan in place. The exotic pests that would affect pistachios are those that would affect other, larger horticultural industries such as almonds, stone fruits etc. The industry is relying upon the success of general Australian biosecurity through AQIS for protection against exotic plants.

SWOT

Strengths

- Providing an Australian bred and grown nut, the Australian pistachio industry is seen as one worthy of support by Australian consumers.
- Pistachios are nuts that provide a healthy snack.
- The large modern facilities of APPC meet all HACCP and health requirements. The industry can present itself as clean and safe. APPC holds SQF2000 and WVQMS registrations.
- Almost all growers have completed SQF1000 or other quality management. All will be registered by 2003 harvest.
- No evidence of aflatoxin problems– this is a virtue that cannot be loudly claimed without confusing consumers but it is of high value within the trade.
- Good flavour
- Good green kernel colour
- Light shell colour (when mechanically dried)
- High split rate– this is of little benefit to consumers as closed shells are always removed but it is very important to the economics of farming *Sirora* pistachios.
- A near “clean/green crop”. No pesticides, few high toxicity chemicals, if any at all.
- Well supported Pistachio Growers’ Association.
- Well funded research program
- Unified industry selling and promoting Australian Pistachios through a single channel.
- Good co-operation between small and large growers and strong industry co operation in general.

Weaknesses

- Small nut size. *Sirora* average 2628 nuts/ounce. Most premium commercial grades are in the 18 to 24 nuts per ounce.
- Low percentage of nuts with a “wide open smile”. Too many narrow split nuts detracting from exciting the consumer with an easy to eat nut.
- Too many nuts with shell staining and other damage detracting from profitable returns.
- The heavy alternate bearing cycle of pistachios produce hulling peaks and sales troughs.
- Most Australian orchards are not yet achieving optimum yields.
- Mechanically harvesting not being efficiently done for many growers resulting in less than optimal yields and less than optimal quality.
- Very slow return on investment combined with adverse tax treatment ensures no major new investment in plantings.

- Small industry size that is only just at critical mass to satisfy the market with no surplus capacity to cover a heavy adverse alternate bearing cycle.

Threats

- Complacency. Any moderately successful industry such as pistachios needs to be mindful of competition and danger around the corner.
- The *Xanthomonas* bacterial disease could wipe out the industry within 5 years.
- An insect pest could emerge.
- Fungal diseases that have ravaged Californian crops (*Verticillium* wilt and *Botryosphaeria*) could develop in Australia. *Botryosphaeria* is present in northern NSW areas of high summer rainfall.
- The Australian industry is based on the single female variety, *Sirora*. Any single variety is susceptible to a variety specific pest.
- The old perception that nuts=fat=bad restricts the purchase by some consumers. In fact pistachios largely contain healthy monounsaturated fats.
- Access to reliable supplies of water.
- The incident of allergies to nuts that could cause general fears and a reduction in consumption.

Opportunities

- The youth and inexperience of the Australian pistachio industry ensures continued enthusiasm and open minds to achieve the vision of its participants.
- Expand the demand for Australian *Sirora* pistachios to ensure that it continues to trade at a premium price. The unified Australian industry sales channel provides the possibility for this to occur.
- Continue to expand total pistachio consumption into the wider Australian community whilst maintaining the Mediterranean ethnic base.
- Additional niche export markets exploiting the difference of *Australian*. Such markets can provide the base of an expanded market in the event of an expansion of supply through better yields.
- Exploiting the clean green growing conditions of Australian pistachios.
- Industry expansion could be based on the ability of pistachios to succeed with moderately saline water (up to 4,000 ECUs) and high pH soils.
- To introduce the fresh pistachio fruit to the wider Australian community, apart from the traditional Mediterranean base in which it is well known and prized.
- To prolong the shelf life of the fresh pistachio fruit through research into packaging and the maintenance of the cold chain.
- to develop export markets for fresh pistachio fruit, as the traditional markets are in the Northern Hemisphere and out of season to us.

Major Issues – List

The following list was compiled and below is the list prioritised.

Disease/pests

- Xanthomonas bacteria
- Fungal diseases
- Insects

Nutrition

- Nut size
- Shell damage
- Kernel fill

Alternate bearing

Water

- When
- How much
- Deficit irrigation

Pruning & training

Marketing

- Maintain contact in export market(s)
- Maintain unity of sales
- Maintain dominance in domestic market

Marketing Fresh

- Develop a coordinated fresh pistachio fruit market.
- Investigate the export of fresh pistachio fruit.

Communication

- Growers

Pollination

New improved varieties

	High \$ Impact Action will have measurable \$ returns to industry	Medium \$ Impact Action may have measurable \$ returns to industry	Low \$ Impact Action unlikely to have measurable \$ returns to industry
High Urgency /Importance Action needed in next 12 months	Xanthomonas Marketing Unity in sales Domination in domestic market	Shell damage	Marketing Export Communication Growers
Medium Urgency/Importance Action needed within 3 years	Water When How much Kernel fill Alternate bearing	Nut size Leaf analysis Pruning/training Pollination	Fungal
Low Urgency/Importance Action needed within 5 years	Insects		New varieties