POTATO INDUSTRY
LIMESTONE COAST

CONTENTS

DOCUMENT DETAILS

Owner

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INTRODUCTION

The Limestone Coast Region covers an area of 21,330 square kilometres or 2.2 per cent of South Australia's land mass. It is a region home to a diverse agricultural industry including:

› Beef
› Sheep
› Dairy
› Wool
› Seed
› Cropping
› Viticulture
› Aquaculture
› Horticulture

The region has a well-balanced climate, fertile soils and the volume of underground water accessible, which in many areas is the only source of water for irrigation, industry, stock and domestic use[1]. It contributes $2.681million (06/07) per annum to the state's economy or 3.9 per cent to the gross state product[2].

Local Government Areas

› District Council of Grant
› Naracoorte Lucindale Council
› District Council of Robe
› City of Mount Gambier
› Kingston District Council
› Tatiara District Council
› Wattle Range Council

Potatoes are a key horticultural crop grown in the region. They are a cool season vegetable, which require a mild, frost-free growing season with regular rainfall or irrigation[3]. South Australia is the largest producer of potatoes in the nation, with a value of $206M equating to 385,000 tonnes annually. The Limestone Coast produces 45% of the state's potatoes.

In the Limestone Coast Region, potato farms are concentrated in the Upper Limestone Coast and Mallee and the Lower Limestone Coast. Fresh or ware potatoes are generally produced in the Upper Limestone Coast and Mallee and processing potatoes are produced in the Lower Limestone Coast.

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[1] *PIRSA. Limestone Coast Region - Development Potential for Agriculture, Forestry and Premium Food and Wine from our clean environment*
[2] *www.pir.sa.gov.au*
[3] *Department of Primary Industries NSW. Prime fact 912.*

INTRODUCTION CONT.

Across the state, 11,900 hectares are under potato production, and the average yield is 39.5 tonnes per hectare. This yield does vary across regions, and in the Lower Limestone Coast the average yield is 50-60 tonnes per hectare, however the Mallee region produces 40-42 tonnes per hectare[4].

Growing Regions in South Australia

Source: Potatoes SA Strategic Plan 2014-2017

Land area estimates (ha) for potatoes in each LGA

Product		Grant	Kingston	Mount Gambier	N'coorte/ Kingston	Robe	Tatiara	Wattle Range	Total Study Area
Potatoes	**ha**	77,429	51,589	1,992	165,260	19,478	279,829	134,010	729,596
	%	40.88	15.46	58.81	36.60	17.86	42.92	34.17	34.23

Source: PIRSA. Limestone Coast Region - Development Potential for Agriculture, Forestry and Premium Food and Wine from our clean environment.

[4] *Potatoes South Australia. Strategic Plan November 2014.*

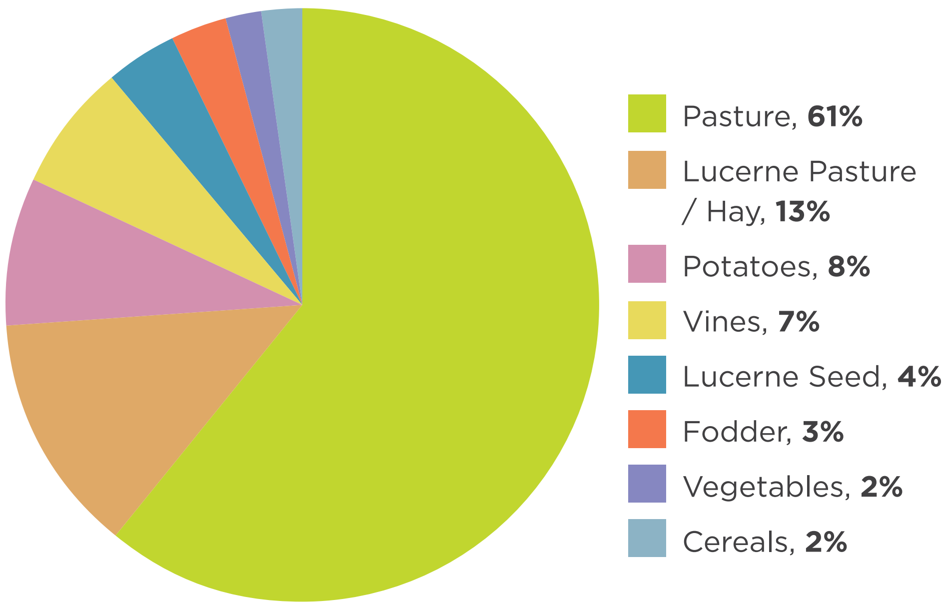
Harvest Times in South Australia

		SUMMER			AUTUMN			WINTER			SPRING		
District	**Region**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**
Adelaide Hills	Woodside, Mt Barker				●	●	●						
Lake Alexandrina	Langhorne Creek	●	●	●				●	●	●			●
Adelaide Plains	Virginia, Angle Vale	●	●	●				●	●	●			●
Lower South East	Mt Gambier, Penola			●	●	●							
Upper South East & Mallee	Pinnaroo, Lameroo, Bordertown	●	●				●	●	●	●	●		●
Port Pirie	Port Pirie					●	●	●	●	●			
Lower Murray	Murray Bridge	●	●					●	●	●			
Upper Murray	Waikerie, Loxton	●	●					●	●	●	●		●

Source: Potatoes SA Strategic Plan 2014-2017

Prescribed Well Area

Groundwater used per crop type for the prescribed well area in the Lower Limestone Coast (2008/09) shows that pasture is the dominant irrigated crop, accounting for 61 per cent of the total licensed volume of water extracted for irrigation. This is followed by Lucerne (13 per cent), and potatoes (8 per cent).



Source: PIRSA. Limestone Coast Region – Development Potential for Agriculture, Forestry and Premium Food and Wine from our clean environment.

ECONOMIC CONTRIBUTION

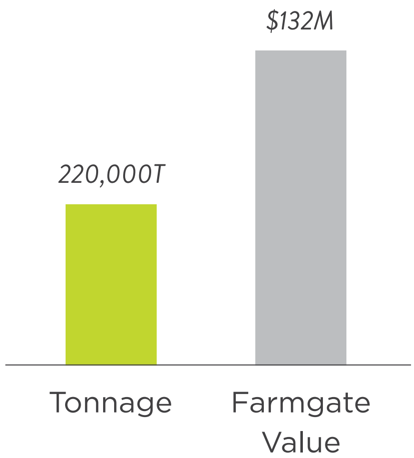
The potato sector is critical to the economy of the Limestone Coast Region and is an intrinsic part of its identity. There are three sectors that fall within the potato industry:

- Fresh
- Processing
- Seed

FRESH

The fresh market is dominated by seven major vertically integrated companies, supplying 80 per cent of the country's fresh washed product. Average production for this sector is 280,000 tonnes with a farm gate value of $132,000,000[5]. The main growing regions are the Riverland, Mallee and Northern Adelaide Plains.

Fresh Potatoes



PROCESSING

The processing sector contributes more than 100,000 tonnes annually, making up 25 per cent of total potato production[6]. The main growing regions are the Limestone Coast and Southern Murraylands. There is also some production in the Northern Adelaide Plains.

French Fries are processed at McCain's Foods Pty Ltd (Aust.) in Ballarat, Victoria. The French Fry sector accounts for 77% of all processing in the region.

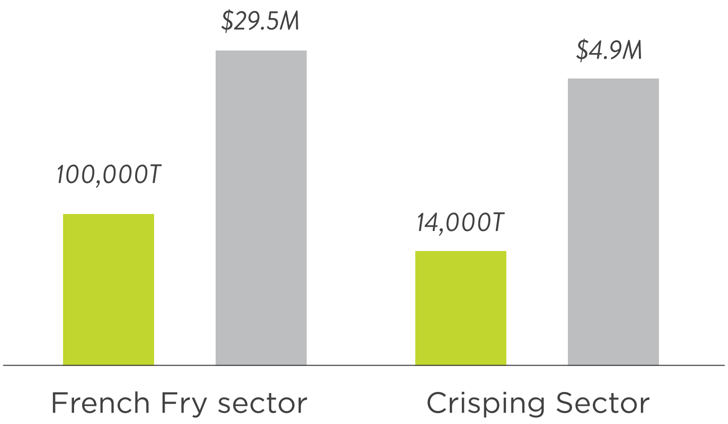
There is a group – South East Potato Growers Association (SEPGA) who have formed as the principle suppliers to McCain's in the region.

The Crisping sector accounts for 23% of processing, with approximately 98% of that market to Smiths Snack Food Company (PepsiCo).

Around 14,000 tonnes of crisping potatoes are produced annually throughout the Lower Limestone Coast[7].

[5] *www.potatoessa.com.au*
[6] *www.potatoessa.com.au*
[7] *Potatoes South Australia. Strategic Plan November 2014*

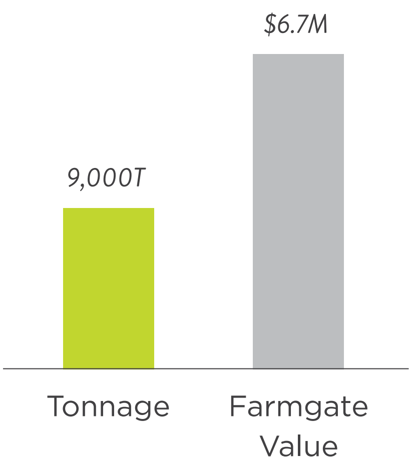
Lower Limestone Coast Potato Processing Industry



SEED

South Australia currently contributes 30,000 tonnes of certified seed potato to national production, with the main seed stock growing regions being Kangaroo Island, the Mallee and Riverland and the Limestone Coast. The seed market is growing, and the Limestone Coast Region boasts one of the largest seed stock facilities in Southern Australia, Dowling AgriTech Pty Ltd who are supplying seed to domestic and Asian markets. Producers are well regarded in this industry and have a reputation and image of "pristine, clean and green". South Australia also has the only active, fully accredited seed supply chain in Australia, located in the Riverland[8]. South Australian seed certification is provided by the Victorian Certified Seed Potato Authority (ViCSPA).

Seed Potatoes



[8] *Potatoes South Australia. Strategic Plan November 2014*

ECONOMIC CONTRIBUTION CONT.

Regional data from the Department of Premier and Cabinet provides an indication of the economic impact the industry has across the region (2012/2013). This data however, takes into account all vegetable crops (including potatoes), all vegetable manufacturing (including frozen potato products) and all food product manufacturing (including potato crisps).

Fruit and Vegetable Products

Gross Regional Product	$12.2M	0.3%
Gross Regional Output	$51.4M	0.7%
Total Exports	$29.9M	1.1%
Imports	$5.3M	0.2%

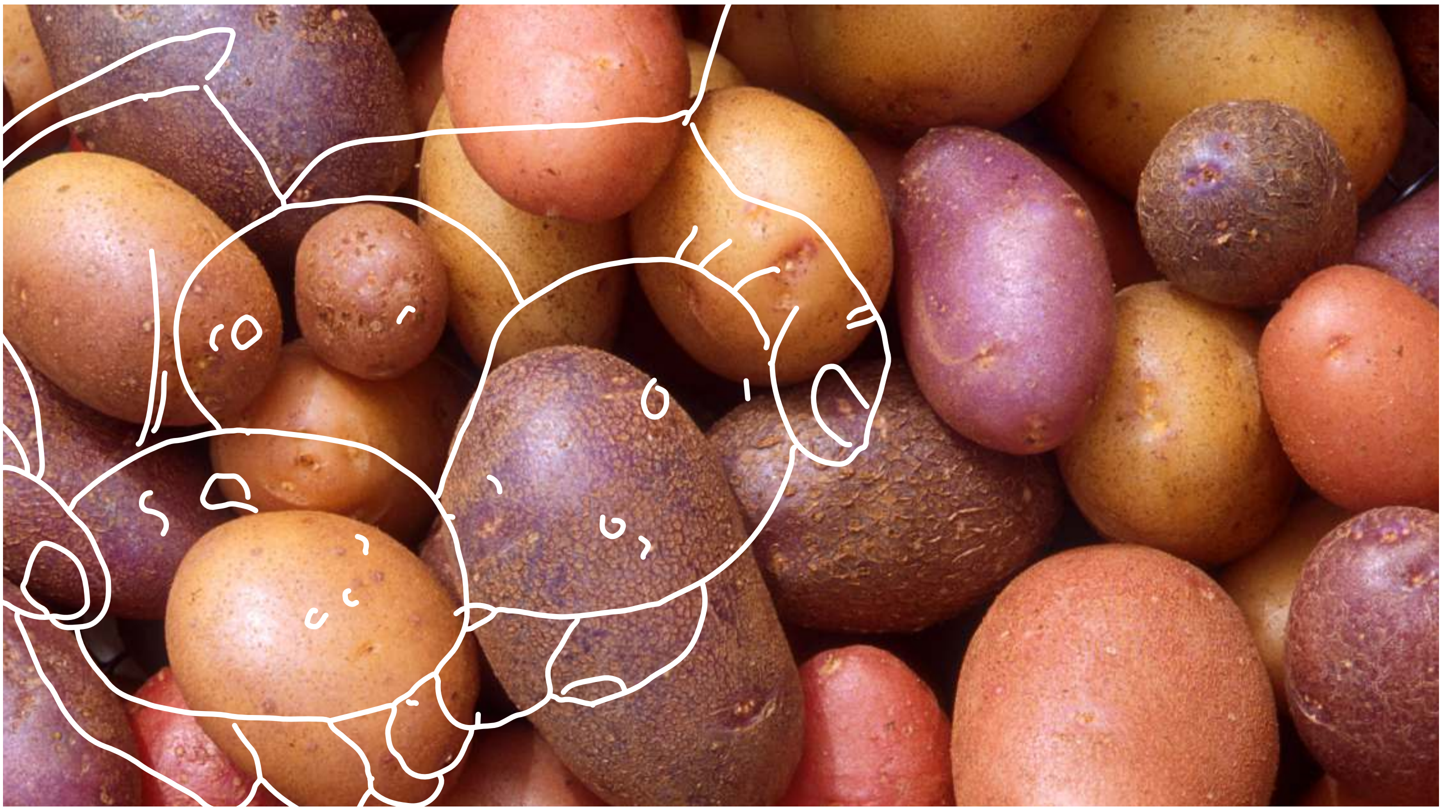
Food Product Manufacturing

Gross Regional Product	$14.5M	0.4%
Gross Regional Output	$43.3M	0.6%
Total Exports	$2.0M	0.1%
Imports	$3.1M	0.1%

Vegetables

Gross Regional Product	$31.2M	0.9%
Gross Regional Output	$54.7M	0.7%
Total Exports	$23.2M	0.9%
Imports	$5.7M	0.2%

Source: www.data.sa.gov.au



INDUSTRY TRENDS

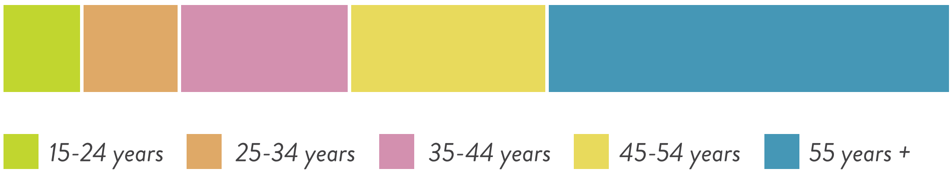
Potatoes represent the fourth largest food crop globally.

NATIONAL INDUSTRY SNAPSHOT

- Annual production is $614 million
- 1.2 million tonnes produced annually
- 36,400 hectares under cultivation
- 20 per cent of all vegetable production
- 55 per cent of households purchase potatoes each week
- Fresh potatoes are 36 per cent of the value chain
- Processing potatoes are 56 per cent of the value chain
- Seed potato production represents 8 per cent of the value chain
- The industry supports a national certified seed potato industry
- The industry is dominated by ten major packing facilities which supply directly to retailers
- The industry is fragmented and uncoordinated across the value chain
- Export capacity and capability is unrealised
- There is no national peak industry body

There are 1,000 potato growers in Australia[9], but this number is falling nationally. Agriculture, Forestry and Fishing has the oldest age profile of any industry, with about 59% of workers aged 45 years or older and only 10% aged 15-24 years.

Age Profile: Agriculture, Forestry & Fishing (% of industry total)



Source: Department of Employment – Australian Jobs 2015

The Australian Potato Industry is behind the world in regards to competitiveness and by 2017 needs to be caught up to the pace of the global markets. Levy funded and effective research and development is vital as yields need to increase to 70 tonnes per hectare rather than the current average of 40, particularly as costs of production in Australia are much higher. Imports are affecting the processing potato industry, and in the last 6 months of 2011 imports reached 77,200 tonnes compared with the whole of 2010 where imports were 82,900 tonnes.[10]

Potatoes are the second largest type of levied vegetable export ($24m) in 2013/14 and has increased by 99% since 2008/09. Indonesia is the largest export of potatoes with a value of $7m.[11] Imports of processed potato product are rapidly growing from 15,000 tonnes in 2003 to 77,000 tonnes in the six months ending December 2011.

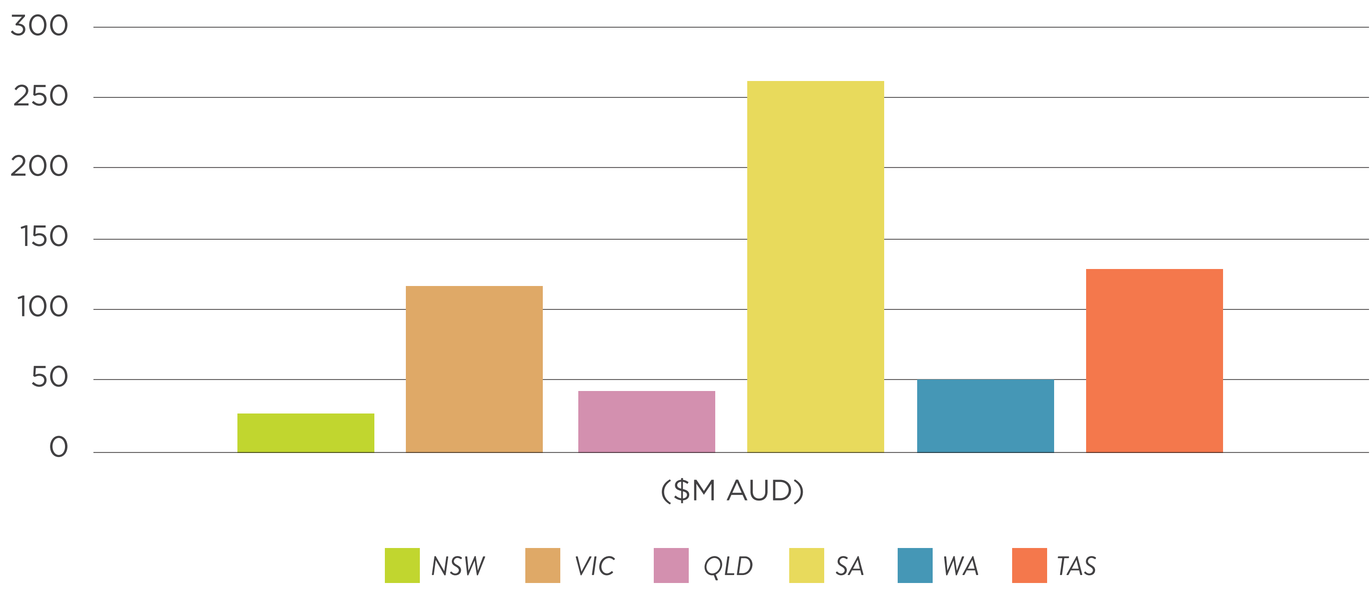
9 *AusVeg. Australian Fresh Potato Industry Strategic Investment Plan 2012-2017.*
10 *AusVeg. Australian Processed Potato Industry Strategic Investment Plan 2012-2017.*
11 *www.ausveg.com.au/resources*

INDUSTRY TRENDS CONT.

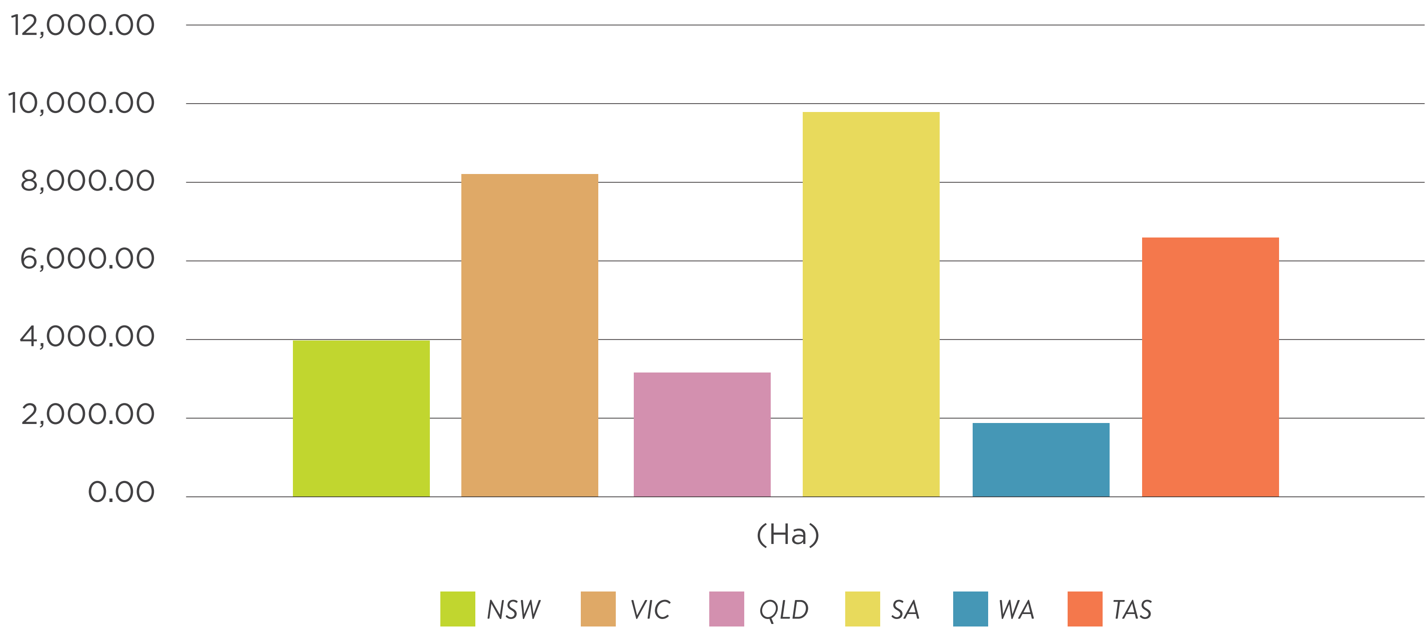
Potatoes are produced in all states and each state has different issues, i.e. productivity, land sustainability and shelf life[12].

INDUSTRY STATISTICS BY STATE 2011/12

Value of Potatoes

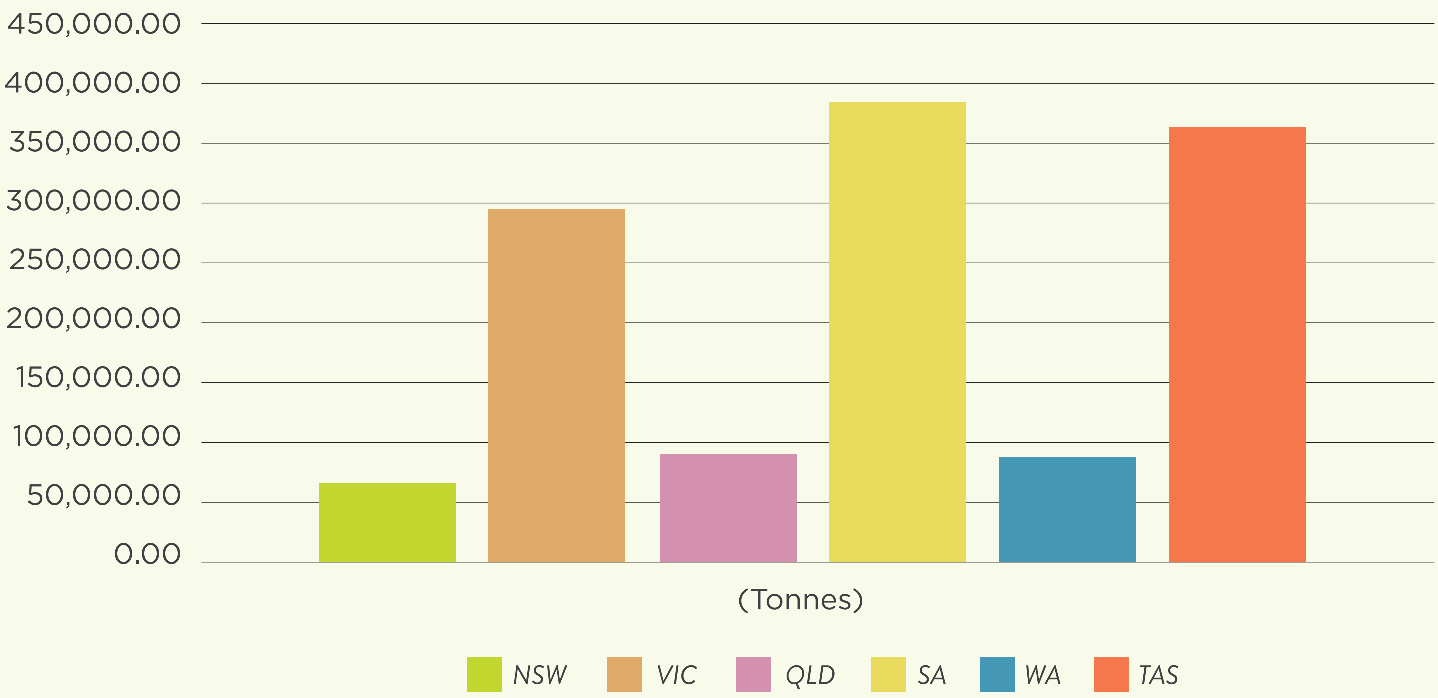


Area Planted to Potatoes

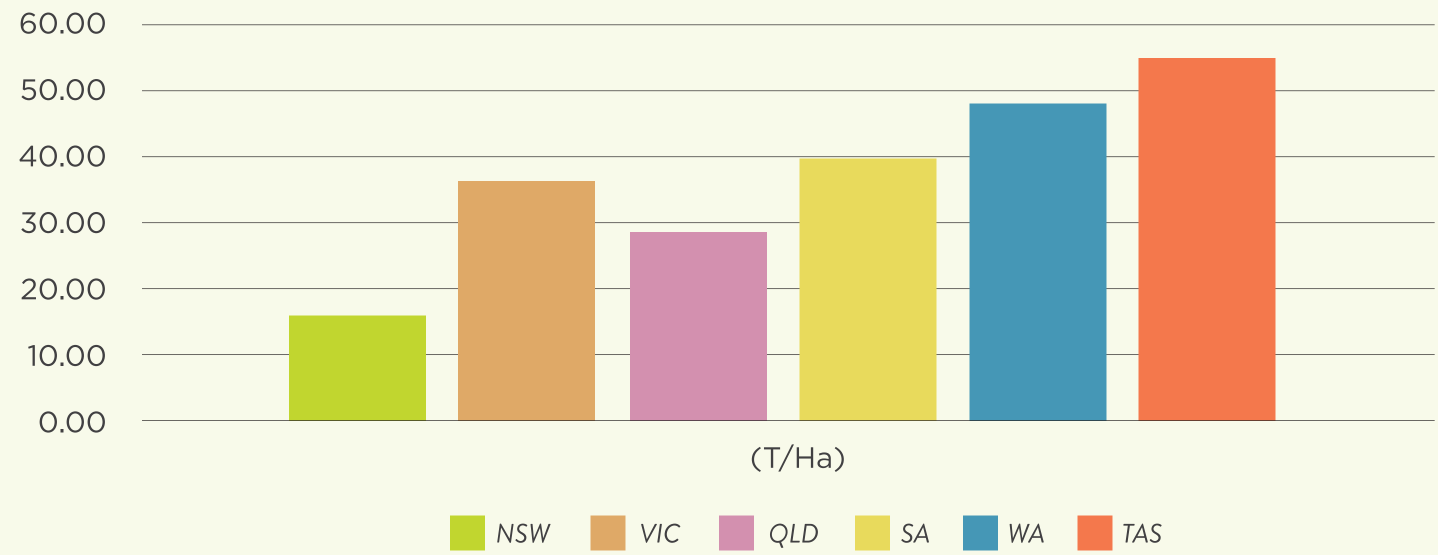


[12] *AusVeg. Australian Fresh Potato Industry Strategic Investment Plan 2012-2017.*

Production of Potatoes



Yield



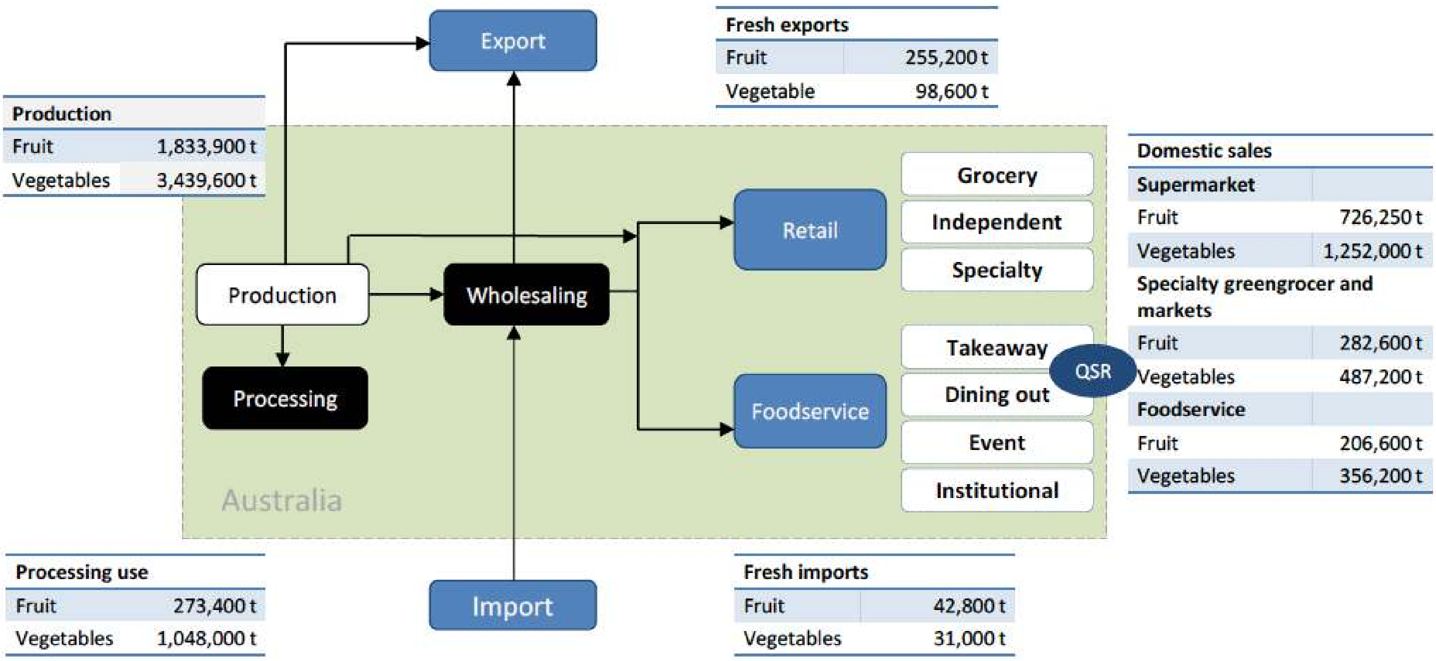
Source Tables 1-4: Potatoes SA and ViCSPA. Submission to the Taskforce for the Australian Government's White Paper on Agricultural Competitiveness.

INDUSTRY TRENDS CONT.

The supply chain for the fresh fruit and vegetable industry is that product is sold in fresh form at retail or sold fresh to food establishments for use in meal preparation. Key features of this supply chain are:

- Supermarkets have 65 per cent of retail share;
- Category Managers at supermarkets are gatekeepers in the chain;
- Specialist retailers compete on value[13].

Supply Chain – Fresh Fruit and Vegetables



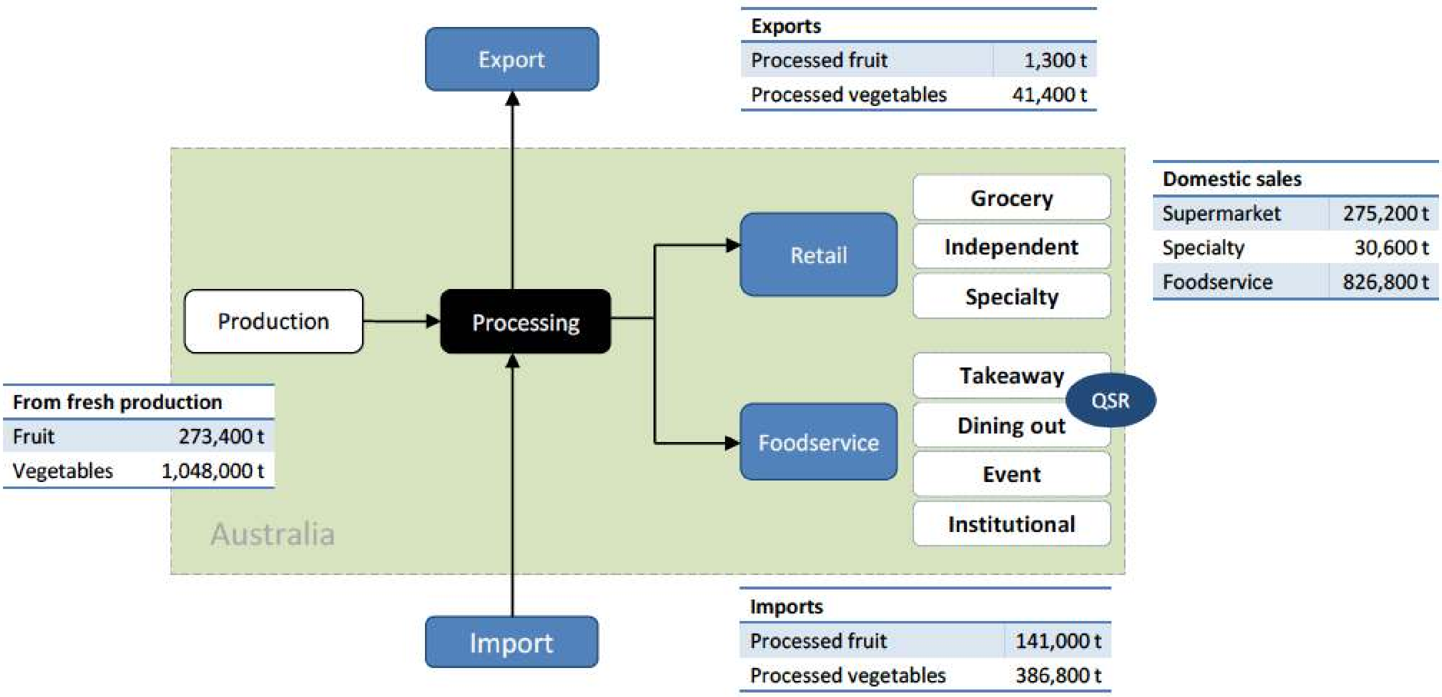
Source: Australian Government. Food map - An analysis of the Australian food supply chain.

[13] *Australian Government. Food map - An analysis of the Australian food supply chain.*

Processed horticulture represents a major component of the processed foods market. Key features of this supply chain include:

- Major food service supermarkets have a dominant role in the sale of processed fruit and vegetables;
- A significant volume of product moves into specialty retail and food service through food service distributers.

Supply Chain – Processed Fruit and Vegetables



Source: Australian Government "Food map - An analysis of the Australian food supply chain" 2012

Asia's rapid growth, incomes and population, along with urban migration is driving increased demands for food, including food processed for convenience, functionality and value add[14]. Global demand for food will rise by 75% until 2050, due to an increase in the world population by two billion people. China in particular will require an increase in food production or food supply of 50% creating an enormous opportunity for Australian producers[15].

The opportunities for Australia are great, but uncaptured and the industry is losing market share in nearly all Asian countries. Australian growers must maintain market share in their established markets, and also move to higher value add production, through food processing, development of niche products, utilising scale and access new and emerging markets[16].

[14] *Department of Industry. Australian Industry Report 2014.*
[15] *Potatoes SA. Submission to the examination of the Import Risk Analysis process.*
[16] *Australian Industry Report 2014.*

INDUSTRY ADVANTAGES

1. **Biosecurity**

   Australia is currently free from many of the pests that affect plant production overseas. An Intergovernmental agreement between Commonwealth, State and Territory governments, in Biosecurity, is in place to strengthen the national biosecurity system[17].

2. **Clean Green Location and Environment**

   South Australia has long been recognised for the way it manages its soils and water and has recently developed a strong reputation for clean air, green technologies and proactive environmental management[18]. These standards can make production costs higher, but can be leverage to provide an advantage and new opportunities in new markets where there is a demand for higher standards.

3. **Proximal to Asian Markets**

   South Australia's proximity to South East Asia, and long standing cultural and commercial relationships with the region, provide us with a natural advantage to partner in its rapid transformation. South East Asia is modernising its infrastructure and industries and has a rapidly urbanising population[19].

4. **Premium Product**

   As South Australia is never going to be the cheapest producer of food in the world, offering a premium product with qualities such as freshness, consistency, being locally produced and safe[20] will be key to continuing growth in the industry.

5. **Cluster Funding in South Australia**

   The Premium food and Wine Co-Innovation Cluster Program is a State Government regional development initiative to support local regional agriculture, food and wine businesses to become collaborative, productive and globally competitive[21]. The processing potato industry was awarded Round One of the funding and an application for a second round of funding has been submitted. This program aims to improve competitiveness of the industry and provide economic growth.

6. **Free Trade Agreements**

   Under the new FTA with China, more than 85% of Australian goods will be tariff free upon entry, and for the horticultural industry this is welcome as over the next four years tariffs on horticultural products will be removed. Until now market access had been difficult and exports to China low[22].

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[17] *www.potatoessa.com.au*
[18] *Premium Food and Wine from our Clean Environment – Action Plan*
[19] *South Australia – An open door to South East Asia – March 2015 20 Premium Food and Wine from our Clean Environment – Action Plan*
[21] *www.pir.sa.gov.au*
[22] *ausfoodnews.com.au*

INDUSTRY CHALLENGES

1. **Input costs and pricing**

   Unless costs can be reduced significantly, Australia will not have a processing potato sector. Australia has the highest cost of processing potatoes in the world[23]. In South Australia, growing costs have risen an average of 3% per annum and packing costs have risen by 5% per annum in the last ten years . Due to these rising costs the industry is losing competitiveness. Other contributing costs are high costs of compliance and regulation, small scale of operations, slow uptake of technology, high shipping costs and high exchange rates[24].

2. **Market Structure**

   There is a lack of communication, collaboration and engagement along the value chain. Along with this the industry is fragmented, multilayered and diffuse and heavily dependent on two dominant processors – McCain's Foods Pty Ltd and Smiths Snack foods Company (PepsiCo)[25].

3. **Exports**

   The export market is underdeveloped and represents only 2% of production in South Australia. Currently the markets are limited to South East Asia, South Korea and the Middle East. There is also poor national export coordination resulting in unrealised capability ad capacity[26].

4. **Workforce**

   Potato farmers are ageing, with an average age of 52 years, which is 12 years above the national average and few younger new farmers are being attracted to the industry. This is resulting in a skills shortage and a major challenge is that the number of agricultural students has halved over the past decade[27].

   Employment in the agricultural sector has decreased by 27.2% over the last ten years, which is the largest decline in any sector[28]. Poor marketing of the agricultural and horticultural sectors as a career choice, lack of skilled labour in regional areas and a perception of food producers being undervalued by the public exacerbate this issue[29].

5. **National Collaboration**

   There are many potato industry bodies across Australia, however there is generally poor communication between these groups, and often a duplication of services and industry division due to the large number of these bodies[30]. A recommendation has been made that the industry needs to advance its cause by having a positive and united approach to objectives and strategic outcomes[31].

Continued...

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[24] *Potatoes South Australia "Strategic Plan" November 2014*

[25] *AusVeg "Australian Processed Potato Industry Strategic Investment Plan 2012-2017"June 2012 26 Potatoes South Australia "Strategic Plan" November 2014*

[27] *Australian Industry Report 2014*

[28] *Blueprint for Australian Agriculture 2013-2020*

[29] *Potatoes South Australia "Strategic Plan" November 2014*

[30] *Potatoes South Australia "Strategic Plan" November 2014*

[31] *AusVeg "Australian Processed Potato Industry Strategic Investment Plan 2012-2017"June 2012 32 AusVeg "Australian Processed Potato Industry Strategic Investment Plan 2012-2017"June 2012*

INDUSTRY CHALLENGES CONT.

6. Consumption and Marketing

The key issue around consumption and marketing in the processing potato sector is that the potato processors see the marketing as their domain, not something to be done at an industry level[32]. However, potatoes are not the widely consumed vegetable they once were, with a lack of understanding or confusion from the consumer around the health benefits of potatoes, and it is perceived as a fattening and unhealthy food[33].

7. R&D and Extension

Innovation is the cornerstone of the food processing industries return to growth and holds the key to raising productivity, improving competiveness, opening new markets and responding to consumer trends. A coordinated approach to R&D is where the productivity gains are to be found, and there is currently an under investment in R&D, poor access to new technologies and low uptake of best practice[34].

The processing potato levy investment for 2013/2014 was $689,031 and is currently $1.00 per tonne - half from growers and half from processors. A total of $1,326,380 was invested into research and development projects, of which the Australian Government matched $622,975 of funding to support 19 projects. In addition to these levy funds, $255,285 of voluntary contributions was provided to the industry to support these projects. Horticulture Australia Limited (HAL) is responsible for managing these funds[35]. There have been issues with this program such as it lacking transparency and ideas not being driven by the ideas of the levy payers. A recent reform has transitioned HAL to a grower owned body with a revised board[36].

8. Biosecurity

In the processing sector, the effects of pests and diseases are more visible and traditionally the sector is a strong backer of R&D and currently imports from New Zealand and the risk of Zebra chip threaten the industry and its quality competitive advantage[37]. The Federal Department of Agriculture is addressing issues around biosecurity and consultation and collaboration to ensure practical benefits for growers[38].

9. Competition

Lack of competitiveness in the Industry is due to a few factors[39]:

- **Scale of Production:** Australian producers are generally small scale producers with potatoes grown under contract;
- **Industry Education and Training:** Education and training has not been a priority for the industry, and this becomes a barrier keeping up with competitors.
- **Uptake of technology:** Needs to be a mindset fostered that technology is the industries friend.
- **Business Approach:** Many framers find it hard to be business like in running their farms.

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32 *Top Line Findings: McCain Global Benchmarking Study of Processing Potatoes*
33 *Potatoes South Australia "Strategic Plan" November 2014*
34 *Blueprint for Australian Agriculture 2013-2020*
35 *Industry Advisory Committee Annual Report 2013-2014*
36 *Potatoes South Australia "Strategic Plan" November 2014*
37 *AusVeg "Australian Processed Potato Industry Strategic Investment Plan 2012-2017"June 2012*
38 *Potatoes South Australia "Strategic Plan" November 2014*
39 *AusVeg "Australian Processed Potato Industry Strategic Investment Plan 2012-2017"June 2012*

FURTHER INFORMATION

AusVeg
www.ausveg.com.au

Potatoes SA
www.potatoessa.com.au

Primary Industries and Regions South Australia
www.pir.sa.gov.au

Department of Employment
www.employment.gov.au

Horticulture Australia
www.horticulture.com.au

Government of South Australia
www.sa.gov.au

Department of State Development
www.statedevelopment.sa.gov.au

Department of Agriculture
www.agriculture.gov.au

National Farmers Federation
www.nff.org.au

Office of the Chief Economist
www.industry.gov.au/office-of-the-chief-economist

VicSPA
www.vicspa.org.au

Regional Development Australia Limestone Coast
www.rdalimestonecoast.org.au

Plant Health Australia
www.planthealthaustralia.com.au

Australian Agribusiness Association
www.agribusiness.asn.au

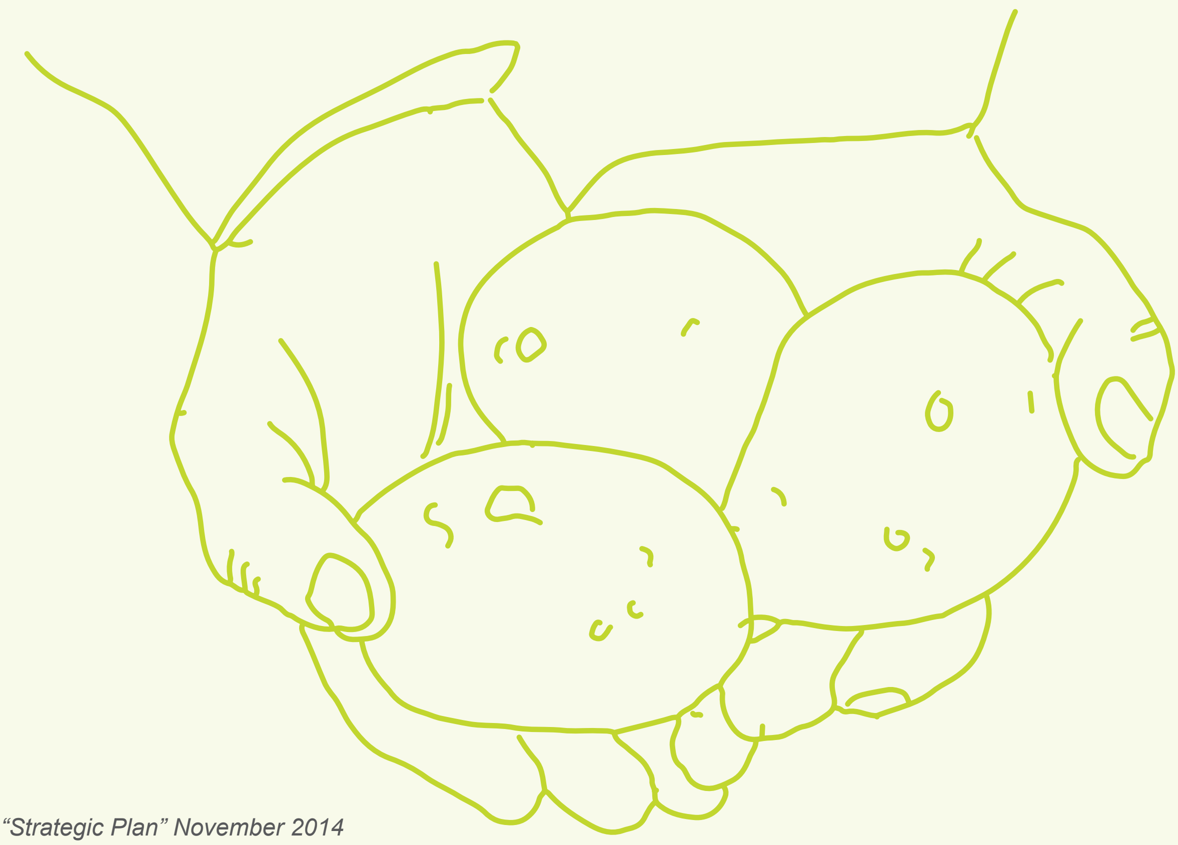
Voice of Horticulture
www.voiceofhorticulture.org.au

Produce Markets Australia and New Zealand
www.pma-anz.com

FoodSA
www.foodsouthaustralia.com.au

Primary Producers SA (PPSA)
www.ppsa.org.au

Department of Foreign Affairs and Trade
www.dfat.gov.au



[40] *Potatoes South Australia "Strategic Plan" November 2014*

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