

POTATO GROWERS ASSOCIATION OF WA (INC)



103 OUTRAM STREET WEST PERTH WESTERN AUSTRALIA 6005 PHONE (08) 9481 0834 FAX (08) 9481 0024

27th February 2014

Mr Bruce Layman
Chief Economist
Economic Regulation Authority

RE: COSTS AND BENEFITS ANALYSIS OF THE CURRENT STATUTORY REQUIREMENTS FOR GROWING AND
MARKETING POTATOES IN WESTERN AUSTRALIA

Dear Bruce,

The Potato Growers Association (the Association) welcomes the Economic Regulation Authority (ERA)'s examination of the efficiency of the potato industry supply chain in Western Australia and the impact of the current marketing arrangements under the Marketing of Potatoes Act on consumers, and producers wishing to grow potatoes.

A lot of the criticism of the contemporary marketing arrangements for potatoes in Western Australia is based on ideological argument, outdated analyses and information, and a lack of understanding of the complexity of the supply chain and the strategies of the major supermarket chains (which constrain, rather than encourage a full range of the 28 varieties of potatoes grown in Western Australia being available to their customers!).

The Association contends that the consumers of potatoes in Western Australia are better off under the current supply and marketing arrangements which closely match market demand and ensure the regular supply of high quality locally grown potatoes at retail prices below the national average price paid by consumers in Australia. It also contends the community is better off as the close matching of supply and demand means less waste disposal and detrimental environmental impacts.

Existing and new growers of potatoes are free to optimise the size of their potato growing enterprise and are not constrained by the marketing arrangements that are in place, with the main constraint to the size of operation being access to water associated with suitable land for growing potatoes.

Finally, the Association would like to point out that the contemporary arrangements for the marketing of potatoes have vastly changed from those in place in 2002, when these arrangements were last examined under the then National competition Policy framework. These changes, and the impact of these changes on consumers and growers, are discussed in the attached report prepared for the Association by Australia Venture Consultants Pty Ltd, which forms part of the Association's submission to the ERA.

We look forward to providing any further information requested by the ERA.

Yours sincerely,

Jim Turley
Executive Officer

Final Report

POTATO GROWERS ASSOCIATION OF WESTERN AUSTRALIA

Costs and Benefits Analysis of the Current Statutory Requirements for
Growing and Marketing Potatoes in Western Australia

February 2014



Disclaimer and Disclosure

This document has been prepared by Australian Venture Consultants Pty Ltd (ACN: 101 195 699) ('AVC'). AVC has been commissioned to prepare this report by the Potato Growers Association of WA and has received a fee from the Potato Growers Association of WA for its preparation.

While the information contained in this publication has been prepared by AVC with all reasonable care from sources that AVC believes to be reliable, no responsibility or liability is accepted from AVC for any errors, omissions or misstatements however caused. Any opinions or recommendations reflect the judgment and assumptions of AVC as at the date of the document and may change without notice. AVC, its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law. Any opinion contained in this publication is unsolicited general information only. AVC is not aware that any recipient intends to rely on this document or of the manner in which a recipient intends to use it. In preparing this information it is not possible to take into consideration the information or opinion needs of any individual recipient. Recipients should conduct their own research into the issues discussed in this document before acting on any recommendation.



CONTENTS

Background	4
Purpose.....	5
Executive Summary	6
The WA Potato Growing Industry	8
Potato Industry Snapshot	10
Marketing of Potatoes Legislation.....	22
Cost Benefit Analysis	24
Impact of Legislation on Growers and Consumers	24
Costs of Maintaining Status Quo vs. Removing Restrictions	27
Trends and Issues Affecting the Potato Growing Industry	30
Conclusion	35
Appendices.....	38
Appendix 1: Ware Potato Varieties Grown in WA	39



Background

The Economic Regulation Authority of Western Australia (ERA) is in the process of undertaking an Inquiry into Microeconomic Reform in Western Australia. The ERA will issue a draft report of the findings of the Inquiry on 31 March 2014.

In order to ensure that the Potato Growers Association's (PGA) position on the current regulation of growing and marketing potatoes in Western Australia is evidence-based and contemporary, and to potentially support a submission to the ERA, the PGA is seeking an assessment of the costs and benefits of the current statutory requirements for growing and marketing table potatoes in Western Australia.

The growing and marketing of potatoes in Western Australia is regulated under the Marketing of Potatoes Act (1946) and the Marketing of Potatoes Regulations (1987). In September 2002 the WA Department of Agriculture conducted a National Competition Policy (NCP) legislation review. This review concluded that the then existing regulated system for potatoes should be maintained given the lack of evidence that implementing any major changes would result in improvement to the public interest.

In 2003, the State Government accepted this advice and confirmed it would retain the regulated framework for the production and marketing of potatoes. Pursuant to the outcomes of the 2002 NCP review, the Government appointed an Independent Advisory Group (IAG) to provide further advice on these matters. In turn IAG appointed David McKinna and Associates to review the current potato industry farm-gate arrangements and provide recommended changes to improve the efficiency of the supply chain¹. As a result of the review a number of recommended reforms were implemented to improve the efficiency and effectiveness of the PMC and potato marketing arrangements.

In 2011, the PMC subsequently engaged David McKinna and Associates to conduct a further review of its operations, the purpose of which was to 'provide actionable and timely recommendations that enable the Corporation, in its regulatory role, to meet the future needs of consumers in Western Australia, ware potato industry stakeholders and the Government'².

Since the 2011 McKinna Review was delivered, several significant changes have been implemented by the Potato Marketing Corporation to improve the efficiency and increase the benefits relative to the costs of the arrangements for the growing and marketing of potatoes in WA; and the implementation of other recommended improvement initiatives are ongoing.

Australian Venture Consultants (AVC) has been engaged to provide an updated assessment of the benefits compared to the costs of the current statutory requirements for growing and marketing table potatoes in Western Australia.

¹ Department of Agriculture (2004), *Marketing of Potatoes Act Section 44 Legislation Review: Marketing of Potatoes Act (1946) and Marketing of Potatoes Regulations (1987)*

² McKinna, D., et al (2011), *Strategic Analysis of the WA Ware Potato Supply Chain*



Purpose

The PGA has requested AVC to prepare an assessment report following the methodology of the National Competition Policy review framework, of the benefits compared to the costs of the current arrangements for growing and marketing potatoes in Western Australia. This assessment will focus on the following areas of analysis:

- Identify the nature of the restrictions on competition identified in the Marketing of Potatoes Act that potentially have an impact on the costs and benefits of the current arrangements for growing and marketing potatoes in Western Australia;
- Examine the likely effect of the restrictions, both on competition and the public interest in terms of economic efficiency and other issues;
- Describe what factors should be taken into account when evaluating the cost and benefits associated with the operation of the Potato Marketing Corporation;
- Make an assessment of the balance of the benefits and the costs of the arrangements currently in place for the growing and marketing of potatoes in Western Australia; and
- Discuss and define the role of the Potato Marketing Corporation in terms of regulating the growing and marketing of potatoes.



Executive Summary

Since enactment of the *Marketing of Potatoes Act 1946 (the Act)*, and the subsequent enactment of the *Marketing of Potatoes Regulations 1989*, by the Parliament of Western Australia, there have been a number of reviews and assessments of the Act in terms of its benefits and drawbacks to the Western Australian community.

The purpose of the Act is to ensure a stable price and the continual and ongoing supply of good quality fresh potatoes to consumers in Western Australia. The Act enables what is now known as the Potato Marketing Corporation (PMC) to administer its provisions. To date, all the previous assessments and reviews have resulted in the continuation of the legislation, as no benefit to the community can accurately be predicted from abandoning the current system as mandated by the Act.

The Economic Regulation Authority of Western Australia (ERA) is now undertaking a broader inquiry into macroeconomic reform in the State, and as part of the inquiry, the ERA will review the operation of the regulatory system for the marketing of potatoes in Western Australia.

The evidence provided in this report supports the argument that significant changes to the existing system would not necessarily benefit the community, and may in fact have negative impacts including higher retail prices to consumers and disruption in regional communities where potato production is an important component of the local economy and community well-being.

There are a number of ill-informed arguments for abandoning the current system. These arguments are generally associated with three themes:

- Limited choice of varieties for consumers;
- Higher retail prices compared to other states; and
- Inefficient use of grower resources.

These arguments are generally inaccurate and do not appear to be evidence based. They are often based on anecdotal or out-dated information, and in some cases historical Australian Bureau of Statistics (ABS) average price data that the ABS has since confirmed is not directly comparable, and should not be used for the comparison of retail potato prices.

The evidence presented in this report includes and discusses in detail the following:

- There are currently over 28 varieties of potatoes being grown and distributed in Western Australia, with some growers reporting production of 9-12 varieties.
- Potato grower efficiency reflects close to world best practice in production yields
- Retail prices in Western Australia are less volatile than national prices;
- Retailer prices are, on average, consistently lower than national prices;
- The cultivation of potatoes in Western Australia is a highly efficient use of economic resources; and
- Coordination of the industry through the PMC reduces the cost of maintaining biosecurity, with Western Australia achieving a world first in 2010, declaring the state 'area free' of Potato Cyst Nematode³.

³ Department of Agriculture and Food (2010), *Potato Cyst Nematode Freedom for Western Australia*, available from: http://archive.agric.wa.gov.au/PC_94644.html



The Potato Marketing Corporation plays an important role in ensuring consumers have access to a consistent supply of a number of varieties of potatoes at prices that are stable and competitive (in many cases lower) relative to other states.

The PMC is primarily engaged in the marketing of ware potatoes produced by registered growers in Western Australia. As part of its role the PMC enables valuable research and development to address challenges that are unique to growing potatoes in Western Australia. In addition, the PMC works with individual growers to improve yields and productivity. It is important to note that based on the most current information, average yields in Western Australia are 7 percent higher than the rest of Australia and amongst the best yields when compared to other developed economies globally.

The multiple functions of the PMC as consumer educator, retail intermediary and R&D hub provide the industry with the necessary support to move away from traditional, but less appealing varieties, and establish successful growth of new varieties that satisfy demand. Significant investment is required in order to propagate a new variety in the WA growing environment, particularly if the varieties originated in the northern hemisphere.

There is a common misconception that due to the nature of the Act the market is closed to new growers. There is no doubt that under certain circumstances the Act empowers the PMC with the ability to deny the entrance of new growers. However, based on interviews with PMC staff, there are no known cases in at least over the last decade where new applicants have been denied, or where the transfer of a licence has not been approved.

The PMC operates on a profit-neutral basis. Current operating costs of the PMC are approximately \$3 million annually. This cost is self-funded by the potato industry and no government funding or capital support is required.

While it always easy to make a theoretical argument for deregulation, there is scant evidence to suggest that abandoning the current system for marketing potatoes would contribute to the net benefit of the consumer or grower communities.



The WA Potato Growing Industry

The WA potato growing industry is unique from its Eastern States counterparts in so far as it is a regulated industry where potato growers are licenced; and the marketing of table ('ware') potatoes in Western Australia is controlled under the Marketing of Potatoes Act 1946 and the Marketing of Potatoes Regulations 1987.

The industry is divided into three main sections:

- Production of ware potatoes for domestic consumption;
- Production of contract potatoes for processing and export; and
- Production of seed potatoes for sale in domestic and export markets

The growing of ware potatoes for local consumption is administered by the Potato Marketing Corporation (PMC) through the licencing of producers. The PMC acts as an intermediary between the ware potato growing industry and end customers (retailers) in order to balance supply with demand, and to accommodate consumer taste preferences in variety and quality.

The specific functions of the Potato Marketing Corporation are to:

- a) regulate the production of ware potatoes so as to ensure the supply of the quantities, kinds and qualities preferred by consumers in the State;
- b) take delivery of, and otherwise deal with, potatoes in accordance with the Act and market potatoes in the State and elsewhere;
- c) register persons who are to be authorised to carry on business as a commercial producer of potatoes, and license the areas of land to be used in any such business;
- d) encourage and promote the use of potatoes and provide for the monitoring and, if thought fit, regulation of the production of potatoes for propagation or for any other prescribed kind of use; and
- e) foster methods of production and adopt methods of marketing that will enable potatoes grown in the State to compete in price and quality against potatoes from alternative sources of supply;
- f) promote, encourage, fund and arrange for the conduct of research into matters relating to the production and marketing of potatoes, and undertake market development; and
- g) seek and apply knowledge of new and improved techniques and materials that will assist it to perform its functions.

Commercial growers producing contract (processing) and seed potatoes must be licenced by the PMC, however the marketing of these potatoes sits outside the delegation of the PMC and its governing legislation.

The WA potato growing industry comprises four main growing regions:

- Northern: includes Dandaragan, Lancelin, Gingin and the Baldivis/Metro area
- Myalup: running from the south of Mandurah to Busselton
- Marybrook/Busselton Region: encompassing the south west including Donnybrook
- Manjimup/Pemberton Region

Trials have been conducted in farming areas outside of these regions, as far north as Broome and to Esperance in the South East, however these regions did not prove viable for the climactic conditions required for the reliable and efficient production of potatoes.

Currently approximately 28 varieties of potatoes are grown in Western Australia, which are broadly categorised by their colour into white, cream, red and blue. A list of the current varieties grown in Western Australia is presented in Appendix 1.

Growers are classified into 'pools' which correspond to 13 week fiscal quarters, according to the ability of growers in each region to produce consistent supply to the market during each quarter or 'pool', and many growers produce for more than one pool.

A high level overview of the general availability of potato supply by grower region is depicted in [Figure 1](#) below.

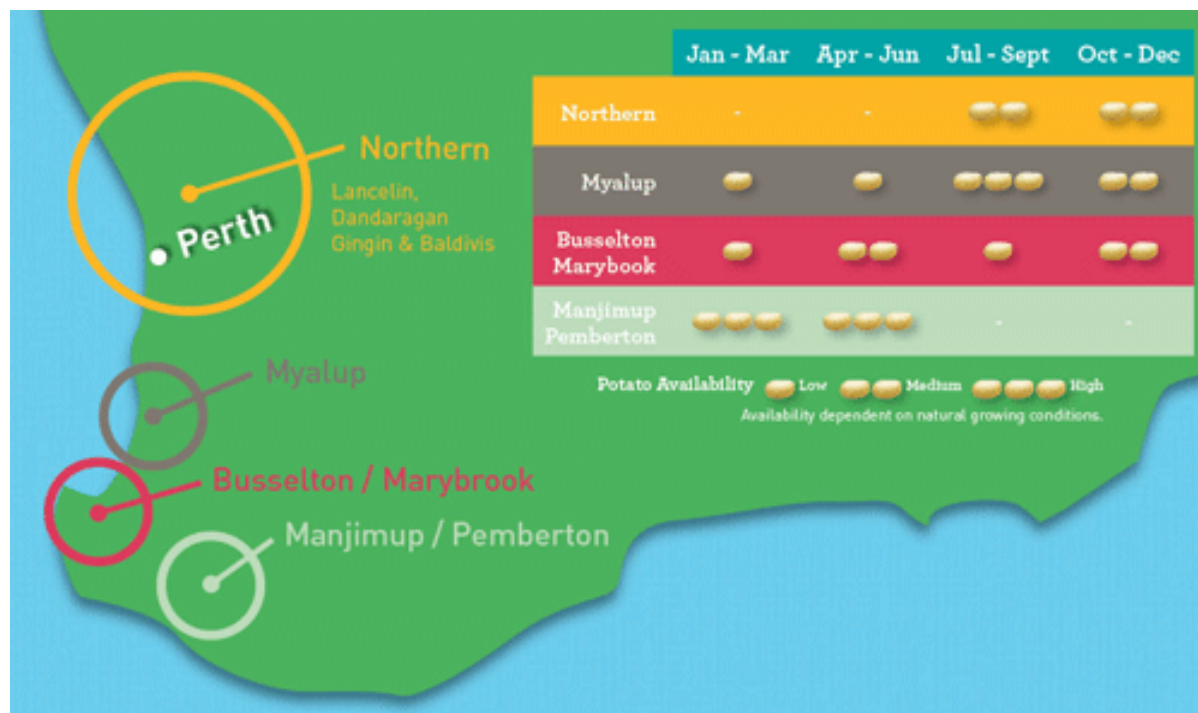


FIGURE 1: WA WARE POTATO GROWING REGIONS

Licences called Domestic Market Entitlements (DME) covering tonnage and hectares are issued annually to growers to grow potatoes on behalf of the PMC for the ware market.

For the year ended 30 June 2013, 78 grower licences were issued to grow nearly 55,000 tonnes of ware potatoes over 1,177 hectares⁴. DME entitlements identify the tonnage to be delivered each week and the required proportions between the three primary skin colour groupings (white/cream, blue and red).

Once DME entitlements are issued, growers complete an 'intent' document that identifies which varieties are proposed to be grown, and submit the document to the PMC for approval (consistent with DME entitlement information), after which the formal licence is granted. Growers are then responsible for delivering ware potato volumes by variety according to the 'intent' under which they have been licenced⁵.

The 'quotas' prepared by the PMC each week are based on grower offerings (according to their 'intent') and this information is published to ware potato merchants. Five 'wash

⁴ Potato Marketing Corporation, www.potatomarketingcorporation.com.au

⁵ Potato Marketing Corporation (2014), *Ware Supply Chain Overview – January 2014*



packers'/merchants are licenced to receive ware potatoes on behalf of the PMC, for the purposes of washing, grading and merchandising potatoes for retail sale.

Merchants receive potatoes based on the quotas issued by the PMC, and the merchant washes and grades each consignment individually based on PMC determined quality criteria. The quality assessment outcome defines the charge to the merchant and the payment to the grower for the consignment, both of which are executed by the PMC⁶.

A key function of the PMC is to monitor the activities of its merchants to ensure that the submitted pack-out is consistent with the policies and procedures of the PMC. An audit regime is in place to ensure this process has a high level of integrity.

The audit regime consists of two complimentary pillars as indicated below:

- Designated consignments: random detailed inspection of individual consignments, assessed end-to-end; and
- General merchant inspections: broad inspection of lines

A sales and operations process (S&OP) was put in place 12 months ago as part of implementing the McKinna⁷ recommendations. The intention of the process is to ensure that the ware potato supply chain is managed, reviewed and developed holistically.

Key elements of this process include the following⁸:

- Weekly engagement with Coles and Woolworths to review historic performance and forecast requirements, including variety development initiatives consistent with their category management priorities;
- Detailed performance reviews with wash packers on their requirements;
- Post Pool supply and quality reviews with growers, including one-on-one sessions for poorer performing growers;
- Half yearly reviews with WA seed growers to ensure their generational development programs will meet the forward demand for ware potatoes, in particular the transition from white to yellow flesh varieties; and
- The background and outcome of these discussions is presented to the executive of the PMC to endorse strategic direction and approve volumes to be licensed in the relevant pool

Potato Industry Snapshot

Australia is only one of two countries in the world (alongside Chile) which can produce potatoes seasonally due to its geographical diversity. This ensures a fresh supply of potatoes all year round without the need for long periods of storage.

In 2011/2012, 32 percent of Australia's vegetable growers produced potatoes as one of the vegetable varieties on their farms⁹. Statistically across Australia¹⁰:

- Potatoes comprise 20 percent of all vegetable production
- 1.25 million tonnes of potatoes are produced annually
- Potatoes are in the top two highest commodity groups sold in value and volume
- 55 percent of households purchase potatoes each week (8 percent behind the leader, the carrot)

⁶ Potato Marketing Corporation (2014), *Ware Supply Chain Overview – January 2014*

⁷ McKinna, D., et al, (2011), *Strategic Analysis of the WA Ware Potato Supply Chain*

⁸ Potato Marketing Corporation (2014), *Ware Supply Chain Overview – January 2014*

⁹ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

¹⁰ Potatoes South Australia, www.potatoessa.com.au



- Annual potato production is worth \$614 million
- Processing potatoes account for 56 percent of the value chain
- Fresh potatoes represent 36 percent
- Seed production represents 8 percent

South Australia is the nation's largest producer, with farm-gate production worth \$206 million, on average producing more than 385,000 tonnes of potatoes annually. South Australia produces 80 percent of Australia's fresh ware potatoes and is a significant contributor to the processed potato market, processing approximately 100,000 tonnes (or 26 percent of state production) annually for French fries and crisps.

Approximately 100 potato growing farms exist in South Australia, representing 50 growers, with approximately 11,900 hectares under cultivation. Six grower/packer/washer facilities exist in the state, and the industry is becoming more vertically integrated. Exports comprise 2 percent of potato production, and potatoes contribute to a third of horticultural interstate trade¹¹.

In contrast, Tasmania, the nation's next largest producer, directs just 10 percent of its potato production to the ware potato market. This accounts for all fresh potatoes consumed in the state since Tasmania does not permit the import of interstate-grown potatoes into its ware potato market due to potential pests and diseases. The majority (80 percent) of Tasmania's production is destined for the processing market and the remaining 10 percent for seed¹².

In Western Australia, approximately 74,000 tonnes of potatoes were grown in 2012/13, approximately 70 percent, or 51,500 tonnes of which were harvested for the ware potato market¹³, with a total of approximately 1,765 hectares under cultivation. The remaining 30 percent of potatoes harvested in Western Australia (over 22,000 tonnes) were destined primarily for the processing (14.4 percent) and seed (12.7 percent) markets, with very small quantities of export (2.5 percent), organic (0.3 percent) or 'special' (0.1 percent) produce¹⁴.

In addition to locally produced ware potatoes, approximately 2,200 tonnes of fresh produce were sourced from interstate in order to satisfy WA domestic market supply in 2012/13¹⁵. Ware potato imports from interstate are most commonly sourced to cover any shortfalls in local production, which typically occur during the extremes of summer (Feb) and winter (July), particularly where adverse growing conditions are encountered. Some imports may also be procured as required to fill any varietal gaps unsatisfied by local production. [Figure 2](#) below demonstrates historical seasonal trends of potato imports from interstate to Western Australia¹⁶.

¹¹ Potatoes South Australia, www.potatoessa.com.au

¹² Department of Primary Industries, Parks, Water and Environment TAS (2012), *Potato Market Profile*

¹³ Potato Marketing Corporation (2013), *Annual Report 2013*

¹⁴ Potato Marketing Corporation (2014), *Data Extract*

¹⁵ Potato Marketing Corporation (2014), *Data Extract*

¹⁶ Potato Marketing Corporation (2014), *Data Extract*

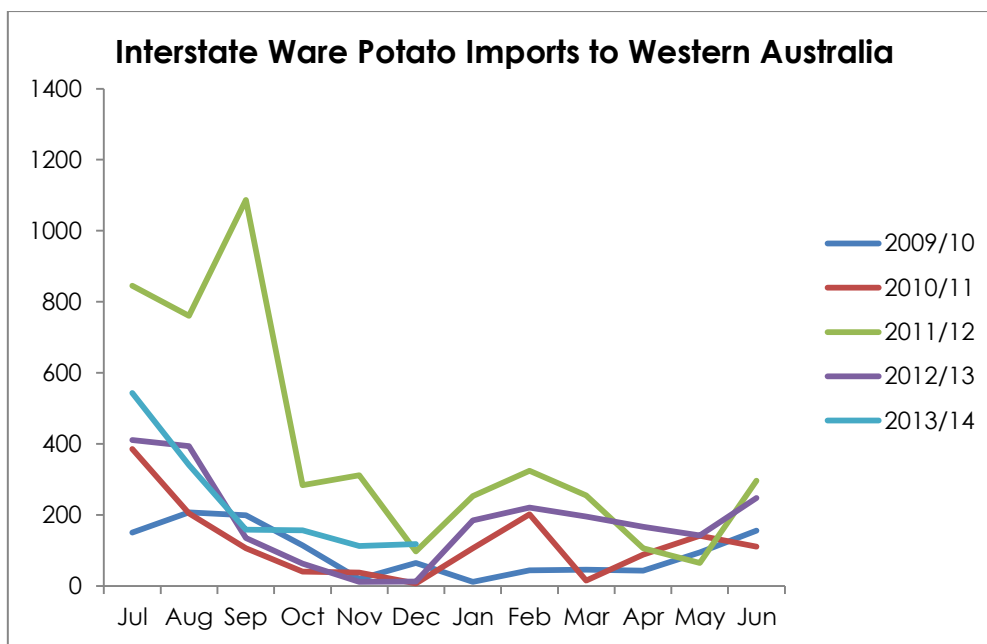


FIGURE 2: INTERSTATE WARE POTATO IMPORTS TO WESTERN AUSTRALIA

Potato production across Australia has demonstrated a declining trend over the three year period from 2010/11 to 2012/13, with a corresponding decline observed in the average area planted by potato growers to 8.56 hectares¹⁷. The average sown area in Western Australia is comparable to the national average at approximately 7 hectares per farm, or 21 hectares per grower licence. It should be noted that significant variance exists between the scale of potato growers in Western Australia, with larger growers planting approximately 70 hectares to potatoes.

Production Efficiency

Despite the decline in overall potato production volumes and acreage, improvements have been made in production efficiency, with a 14 percent increase in average yield from 36 to 41 tonnes per hectare observed between 2010/11 and 2012/13 across Australia¹⁸.

Potato crop yields are determined by factors such as the crop variety, seed age and quality, crop management practices and the cultivating environment. Average potato yields in developed economies range between 38 to 44 tonnes per hectare, compared with 15 to 20 tonnes per hectare in developing economies such as China and India, which are the two largest potato producers in the world. Global best practice has been achieved in New Zealand, where yields of 60 to 80 tonnes per hectare have been observed¹⁹. In 2012/13 however, New Zealand reported a decline in total production yield to 47.3 tonnes per hectare²⁰.

The average yield per hectare in Western Australia was 43.8 in 2012/13, 7 percent higher than the national average and at the upper end of the range for developed economies globally. The best performing WA grower pool in 2012/13 achieved a yield of 60 tonnes per hectare. Western Australia has enjoyed a consistent yield advantage over other states in recent years,

¹⁷ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

¹⁸ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

¹⁹ Food and Agriculture Organisation of the United Nations (2011), *Production Crops -2010 Data*

²⁰ USDA Foreign Agricultural Service, *New Zealand Potato Sector Annual Update 2013*



with Tasmania its nearest competitor. By comparison, extrapolation of 2013 South Australian cultivation and harvest data implies an average yield of 32.4 tonnes per hectare²¹.

A comparison of overall potato production and yields per hectare by state for the 2010-11 year is outlined in [Table 1](#) below²².

Potato Production (2010-11)	WA	QLD	NSW	VIC	SA	TAS
Production of Potatoes (t)	84,800	87,700	110,800	236,700	356,000	251,800
Area Sown to Potatoes (Ha)	1,900	3,300	4,100	7,600	9,300	6,000
Yield t/Ha	44.63	26.58	27.02	31.14	38.28	41.97

TABLE 1: POTATO PRODUCTION AND YIELD BY STATE 2010-11

Regional Differences

Potato growing regions differ significantly around Australia in terms of climate, soil type, water availability and growing conditions, as well as cost and availability of land suitable for potato cultivation; therefore it is difficult to make a direct comparison between potato farming regions. Furthermore, published data pertaining to potato and other vegetable farming generally does not differentiate between farms which are exclusively dedicated to potato growing as distinct from those which cultivate multiple vegetables and/or run livestock. In all states there is a significant variance between smaller or niche potato growers and larger scale potato growers.

Some conclusions may be drawn by region, although it is important to note that these are general in nature and do not apply in all circumstances. For example, on average, land area under potato cultivation is smaller in Western Australia and Tasmania; however the yields per hectare are higher in these states than anywhere else in the nation.

Western Australia in particular hosts limited pockets of land with available water supplies and which are suitable for potato cultivation, and these areas are typically located in coastal regions within a few hours' drive of its capital city, rendering this land expensive relative to land in east coast farming areas.

Suitable farming land that may be used for potatoes in Western Australia typically comprises 80-120 hectares per farm, and land is generally cultivated on a rotational basis – meaning that potatoes would be sown in any one portion of land once every four growing seasons. Many Western Australian potato growers indicate that they would like to expand their operations, citing the primary limitation as the availability of suitable farming land and water licences.

South Australia hosts the largest average land area dedicated to potato cultivation relative to all other states. It is considered that an abundance of relatively inexpensive land and favourable sandy soil conditions with clean water aquifers have led to an ability for growers in this state to pursue economies of scale in area cultivated and application of time-saving harvesting machinery. However, the increased scale of production in South Australia has occurred at the expense of production efficiency, with lower average yields per hectare observed. The latter practice arguably has implications for long-term farming sustainability.

²¹ Potatoes South Australia, www.potatoessa.com.au

²² Australian Bureau of Statistics (2013), *Catalogue 7124.0 Historical Selected Agriculture Commodities by State 2010-11*



Potato Grower Input Costs and Revenues

Grower input costs vary across regions depending on a number of factors, including water availability and cost, fertiliser, fuel, labour hire, land and other capital asset and technology acquisition and maintenance costs, as well as differences in production techniques for produce destined for fresh or processing markets.

For example, Western Australia's scarce water resources are highly regulated, and farm production is directly dependent on the availability of water licences. The Department of Water is responsible for the allocation of water licences, however availability of water resources is limited, and where licence applications are not approved growers may only acquire water via a willing seller of a water licence on the secondary market. Little water licence trading occurs via this informal mechanism and market prices prevail due to resource scarcity and competition for licences.

Western Australia's climactic conditions require greater water resources per hectare of irrigated land than any other state in the country, which at an average of 6.4ML of water per hectare of irrigated vegetables is more than double the national average and 3.2 times the average amount required in Victoria for vegetable growing²³.

A 2010 study into pricing and cost structures (for the 2008/09 growing year) in the Australian vegetable industry found that Western Australia had the highest cost of production for potatoes at \$398 per tonne, followed closely by Queensland at \$352 per tonne. Tasmania had the lowest cost of production for potatoes at \$212 per tonne, followed by South Australia at \$250 per tonne, which, as the country's two largest producers, brought the national average cost of production down to \$263 per tonne. Potatoes had the smallest difference between states in production costs of all vegetables, with the lowest cost producer just 20 percent below and the highest cost producer 50 percent above the average price. This compares to tomatoes, for example, which cost 8 times as much to produce in South Australia at \$1,680 per tonne as in Victoria at \$207 per tonne.

While no state had the highest or lowest cost of production for all vegetables during the study period, on average Western Australia had the second highest cost of production after Queensland²⁴.

The most recent cost of production analysis completed for the Potato Marketing Corporation indicates that average input costs have since risen from \$417 per tonne in the 2011/12 growing year to \$513 per tonne in 2012/13, which is an increase of 23 percent in one year²⁵.

Wholesale prices received by growers vary from state to state according to levels of local supply and demand, seasonality, produce quality; grower input costs and prices in other states. The market will generally tolerate price differences between states only to the extent that local produce remains less expensive than transporting the cheapest available (comparable) alternative produce.

In the 2010 study, Western Australia received the second-highest prices for its potatoes at \$550 per tonne after Queensland (\$616 per tonne), while Victoria received the lowest price for its potatoes at \$251 per tonne – at which price costs of production (\$264 per tonne) were not met. Nationally, the average price received for potatoes in the 2008/09 growing year

²³ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

²⁴ AUSVEG (2010), *Pricing, Cost Structures, and Profitability in the Australian Vegetable Industry*

²⁵ Skipworth, E. and Assoc. (2013), *Recommended Pool Prices for the 2013/14 Growing Season*

was \$398 per tonne. Western Australia received the lowest gross margin on its potatoes after Victoria, with the highest gross margins received by Queensland and South Australia respectively.

The most recent data published by Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) in February 2014 demonstrates the consistency of downward wholesale pricing pressure. Nationally, potato growers reported a further decline of 5 percent in the price per tonne received for all potatoes from 2010/11 down to \$380 per tonne in 2012/13²⁶.

Returns to growers of potatoes for the ware market in Western Australia mirrored the downward national trend as prices declined by 5 percent from 2010/11, and in 2012/13 were 17 percent below 2008/09 levels, as depicted in [Figure 3](#) below²⁷.

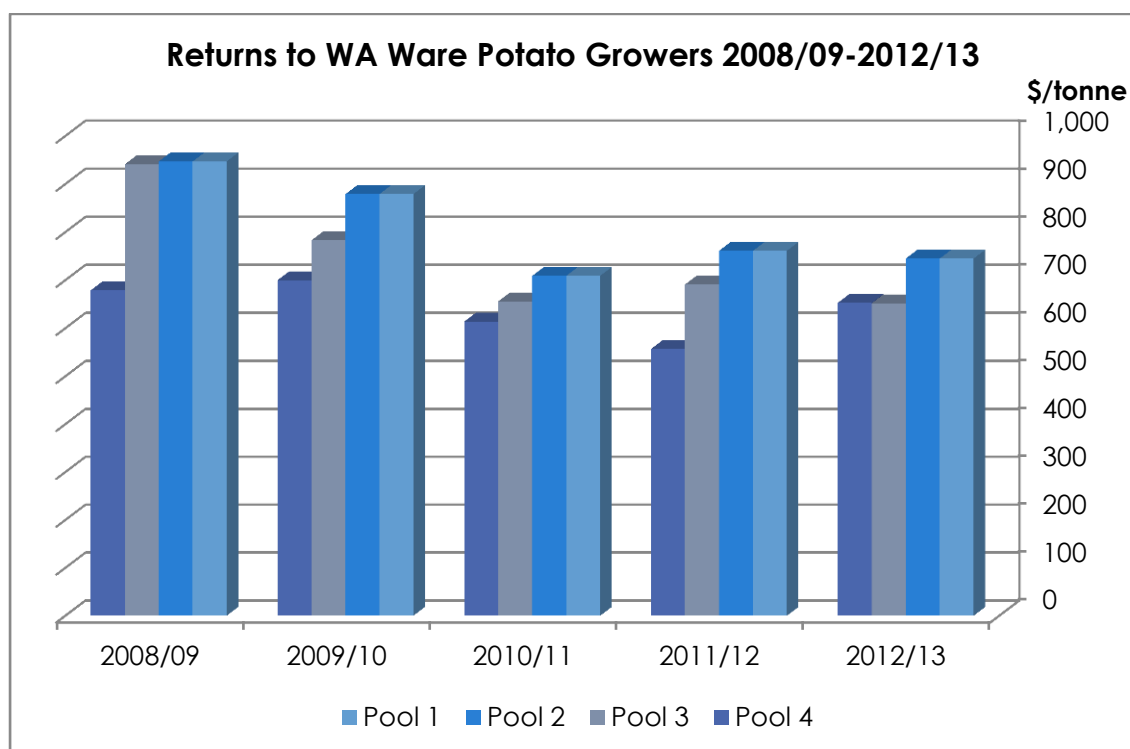


FIGURE 3: RETURNS TO WA POTATO GROWERS 2008/09-2012/13

It is important to note that the prices per tonne illustrated in the above graph are not reflective of the price per tonne received by growers for all potatoes (as is the case in aggregate national data), rather it is specific to ware potatoes, which attract a higher price per tonne than contract and seed potatoes.

On average across Australia, the lower revenues received from declining prices have not been counter-balanced with proportionately lower input costs, resulting in an overall decline in income. In 2012/13 the vegetable growing season was considered to be average to slightly above average²⁸, however average vegetable farm cash income in Western

²⁶ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

²⁷ Potato Marketing Corporation (2013), *Annual Report 2013*

²⁸ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*



Australia was estimated to have declined by 42 percent to \$149,000 per vegetable growing farm (compared to a 38 percent decline nationally)²⁹.

WA Wholesale Pricing Process

The Western Australian potato industry is unique from the remainder of the country as it is governed by the Marketing of Potatoes Act (1946), which identifies a number of provisions to administer the pricing of ware potatoes.

Specifically, the PMC determines pricing at two levels:

- The price per tonne that the PMC charges to merchants, which constitutes the farm-gate price plus washing, grading and packing
- The price per tonne that the PMC pays to growers, minus any discounts, levies or corporate costs

Following this process, the merchant determines the wholesale ware potato price, including its margin.

Under the Act, consideration is given to offer a grower 'a reasonable opportunity to profit from the economically efficient production of potatoes³⁰', where economically efficient production is defined as where a reasonable yield is obtained through investment of reasonable input costs. A reasonable yield is considered to be one where a 'better than breakeven' financial result is achieved after considering all farm expenses.

The Potato Marketing Corporation appoints an independent agricultural consultant on an annual basis to undertake an analysis of the cost of production for a representative sample of potato growing farms across each grower pool which, on the basis of the prior year's grower statistics and financial results are considered to meet the above criteria.

Statistical outliers where growers have had to deal with extreme growing conditions, trials of new varieties or high capital or finance costs due to farm expansion or plant and equipment upgrades are excluded from the analysis.

An adjustment is made for inflation of input cost at the Consumer Price Index (CPI), which was assumed at 2.5 percent for the 2013/14 financial year. In some cases, where input costs have significantly exceeded CPI, appropriate adjustments are made in the cost of production modelling.

In the 2013/14 year investigations into input cost increases resulted in the following adjustments to major input cost assumptions:

- Fertiliser – 10 percent
- Chemicals – 12 percent
- Fuel – 15 percent
- Electricity – 17 percent

The results of the cost of production analysis are used to make recommendations to the PMC on the prices it should pay to growers for each of the grower pools on the basis of maintaining financial farm viability³¹.

²⁹ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

³⁰ Marketing of Potatoes Act (1946), Part IV – Marketing of Potatoes, (Section 32.(1)(a) p40)

³¹ Skipworth, E. and Assoc. (2013), *Recommended Pool Prices for the 2013/14 Growing Season*



However, in 2012/13 the recommended pool prices for growers were not achieved and accordingly, recommendations for the current 2013/14 growing year have been retained at 2012/13 recommended pool pricing levels, despite the outcome of cost of production modelling which suggested that price rises of between \$40 and \$100 per tonne were required to off-set higher input costs³².

There is no evidence to suggest that the market will continue to sustain the 2012/13 recommended pool prices in 2013/14, let alone any increases. In any event, considering the 23 percent increase in input costs in 2013/14, the 2012/13 recommended prices are below the price at which an economically efficient potato grower could expect to remain financially viable in the current growing year³³.

These pricing outcomes demonstrate that despite the existence of the administered pricing mechanism facilitated by the PMC, the WA market does not operate independently from market signals and prices in the eastern states; rather remains a 'price taker', as the effects of retailer buyer power and an oversupplied eastern states market continue to prevail over the prices that can be achieved in the wholesale market and hence the returns to growers.

Retail Pricing

Retail prices for ware potatoes across Australia are primarily a function of available supply and retailer pricing strategy. To a lesser extent consumer demand plays a role, however, consumers reportedly demonstrate relatively low price sensitivity since potatoes are a staple carbohydrate food that represent a low proportion of overall grocery spending.

From a supply perspective, the ware potato industry in Australia is frequently an over-supplied market, with major fluctuations in grower returns and subsequent production levels. In contrast, Western Australia operates in an administered market where market demand for fresh potatoes is forecast each year and local growers aim to meet the majority of state supply requirements.

Potatoes are grown in all states of Australia, however potato growing regions within several states are susceptible to the extremes of drought and flood, and hence quantity of supply to these markets is volatile.

Cycles of 'boom and bust', or periods of gross under or over supply have been observed in the east coast market, and accordingly eastern states retail prices have demonstrated greater volatility than in Western Australia, where supply (as well as grower and merchant prices) are administered by the Potato Marketing Corporation.

It should be noted that past retail price comparisons using Australian Bureau of Statistics' (ABS) average retail price data have been determined by the ABS to be unsuitable for performing time-series analysis between capital cities.

The ABS, following a comprehensive review of its Consumer Price Index in 2010 subsequently discontinued the average retail price publication and issued the following statement in 2011:

³² Skipworth, E. and Assoc. (2013), *Recommended Pool Prices for the 2013/14 Growing Season*

³³ Skipworth, E. and Assoc. (2013), *Recommended Pool Prices for the 2013/14 Growing Season*

'The review determined that the Average Retail Prices (ARP) data neither performs the function of showing price change over time (temporal measure) nor a detailed price level comparison between capital cities (spatial measure) in an unbiased, robust manner.'³⁴

The retail price data used for time-series analysis in this report was sourced from historical retail sales data, which has been collated by Freshlogic, a specialised market information provider to the food industry. This data is acquired by the PMC for strategic planning and sales analysis purposes.

Long term historical retail pricing trends are reflected in [Figure 4](#) below³⁵, and illustrate that Perth retail prices do not operate independently from the national average. Rather, over the past decade Perth prices typically followed a 'smoothed' trend, avoiding some of the steep price spikes and troughs observed in the deregulated market across the rest of the nation.

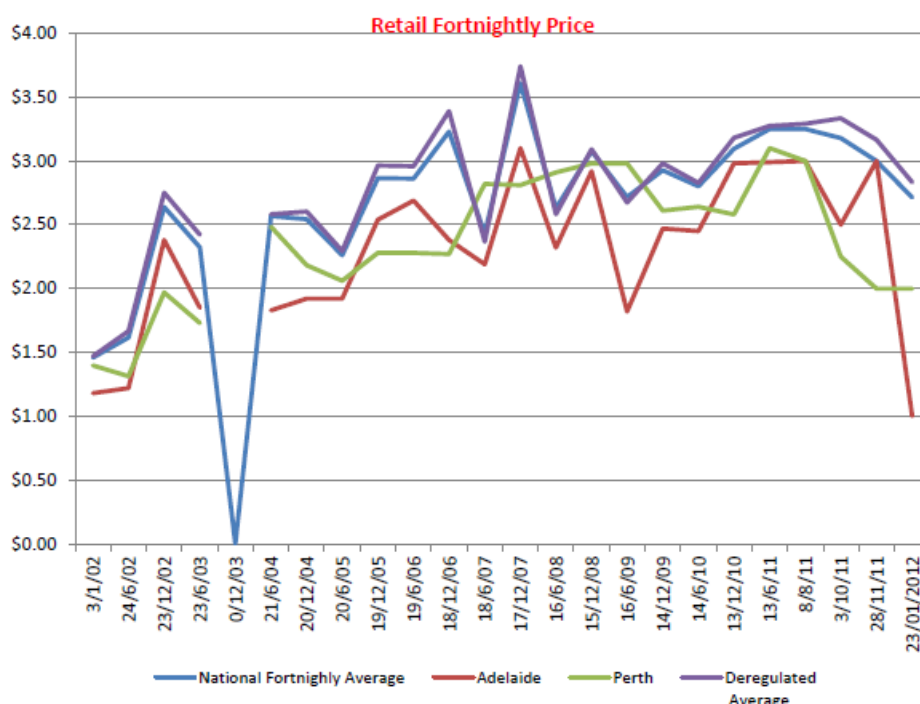


FIGURE 4: LONG TERM WARE POTATO RETAIL PRICES BY STATE

On average however, contrary to what might be expected in an administered market, Western Australian historical retail prices have typically remained lower than the national average prices, except where eastern states prices have plummeted to absolute trough points in any given season.

A snapshot of the past 12 months retail pricing data is presented in [Figure 5](#) below³⁶, which demonstrates WA retail price performance relative to the national deregulated average retail price.

³⁴ ABS (2011), *Final Issue of Average Retail Prices*, available from:

<http://www.abs.gov.au/ausstats/abs@.nsf/mf/6403.0.55.001?OpenDocument>

³⁵ Potato Marketing Corporation (2013), *Retail Price Comparison Data for the Economic Regulatory Authority* – 30 December 2013

³⁶ Potato Marketing Corporation (2013), *Retail Price Comparison Data for the Economic Regulatory Authority* – 30 December 2013

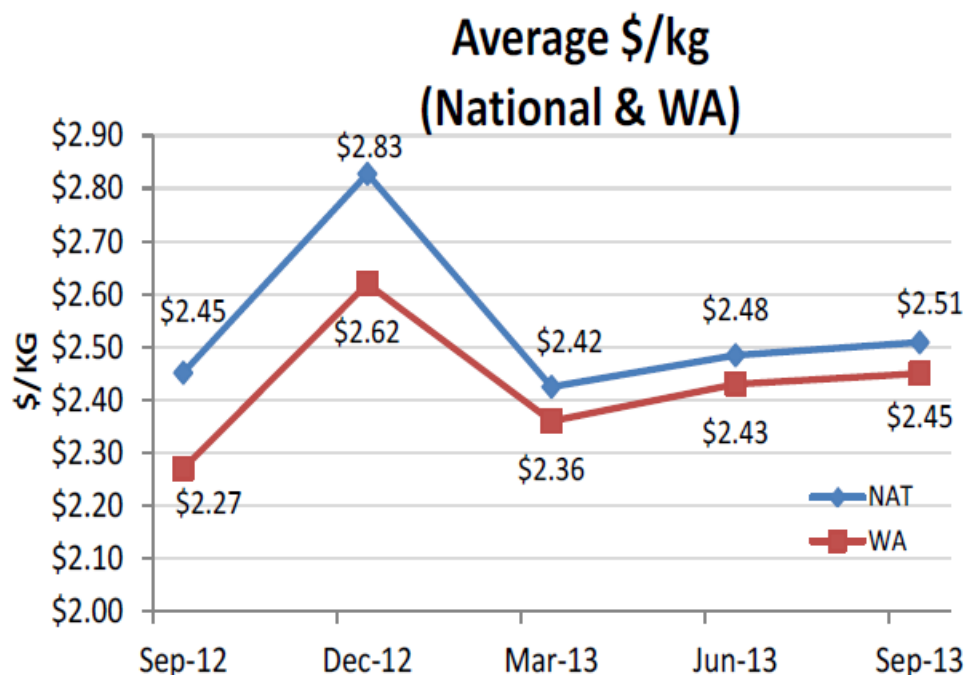


FIGURE 5: WA RETAIL PRICES COMPARED TO NATIONAL DEREGULATED AVERAGE RETAIL PRICES 2012-13

This is most likely indicative of two things: firstly, the Potato Marketing Corporation sets margins and prices that provide a reasonable opportunity for a fair return and does not allow excessive profits to be made at each stage of the supply chain. Secondly, as the PMC aims to match supply to consumer demand, in most growing seasons WA does not experience any significant shortage or surplus of ware potatoes that would justify selling potatoes at a premium or a discount.

Consequently, the extent to which retail prices in Western Australia vary from the national average retail price is likely to be limited to seasonal fluctuations or retailer pricing strategy rather than very short term reactions to changes in supply.

Retailer pricing strategy is likely to be a significant contributor to prevailing retail market prices, since the Australian retail supermarket industry is the most highly concentrated in the world. Coles and Woolworths, the two dominant supermarket chains in Australia together account for an 80 percent share of the market³⁷ for groceries, and hence are 'price makers'.

The concept of oligopsony power and its effect on suppliers and consumers will be discussed in a subsequent section of this report. However, in addition to market power, Coles and Woolworths engage in predatory pricing strategies against each other as well as independent retailers, in order to win market share, drive out competition and discourage new entrants to the retailer market.

For example, in recent years following the global financial crisis, Coles has embarked on a pricing strategy referred to as 'down-down', designed to offer consistently lower prices to consumers on everyday items. The retail price discounts offered to consumers are typically funded through leveraging buyer power to obtain discounts and rebates from suppliers, (which essentially equates to driving lower wholesale prices).

³⁷ IBISWORLD, Retail Food Sector Industry Data

A more granular comparison of weighted average retail potato prices by state for the 2013 calendar year is depicted below for [Figure 6](#) (January to May 2013), [Figure 7](#) (May to August 2013) and [Figure 8](#) (September to December 2013)³⁸.

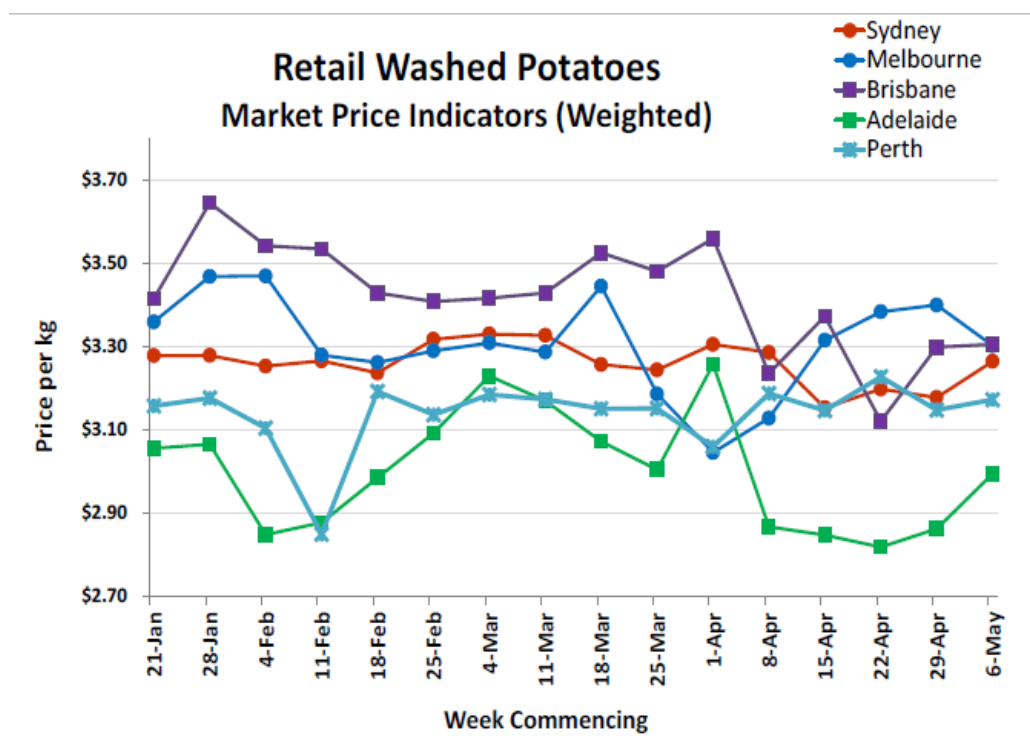


FIGURE 6: WEIGHTED AVERAGE RETAIL PRICES BY STATE: JAN - MAY 2013

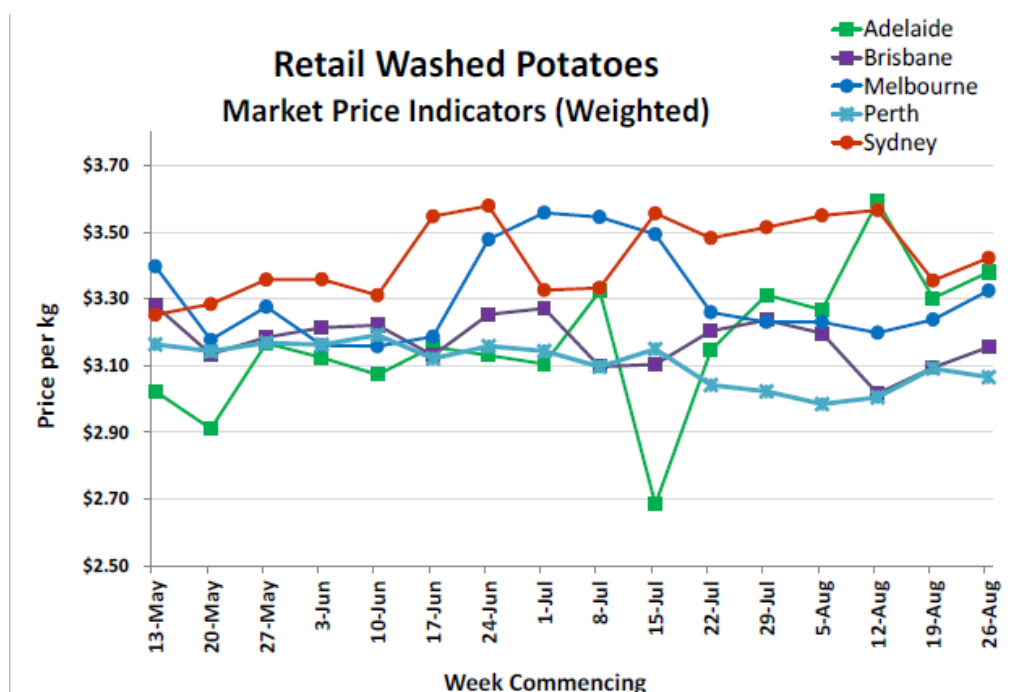


FIGURE 7: WEIGHTED AVERAGE RETAIL PRICES BY STATE: MAY - AUG 2013

³⁸ Potato Marketing Corporation (2013), ERA Microeconomic Reform Inquiry – Retail Price Comparison Data

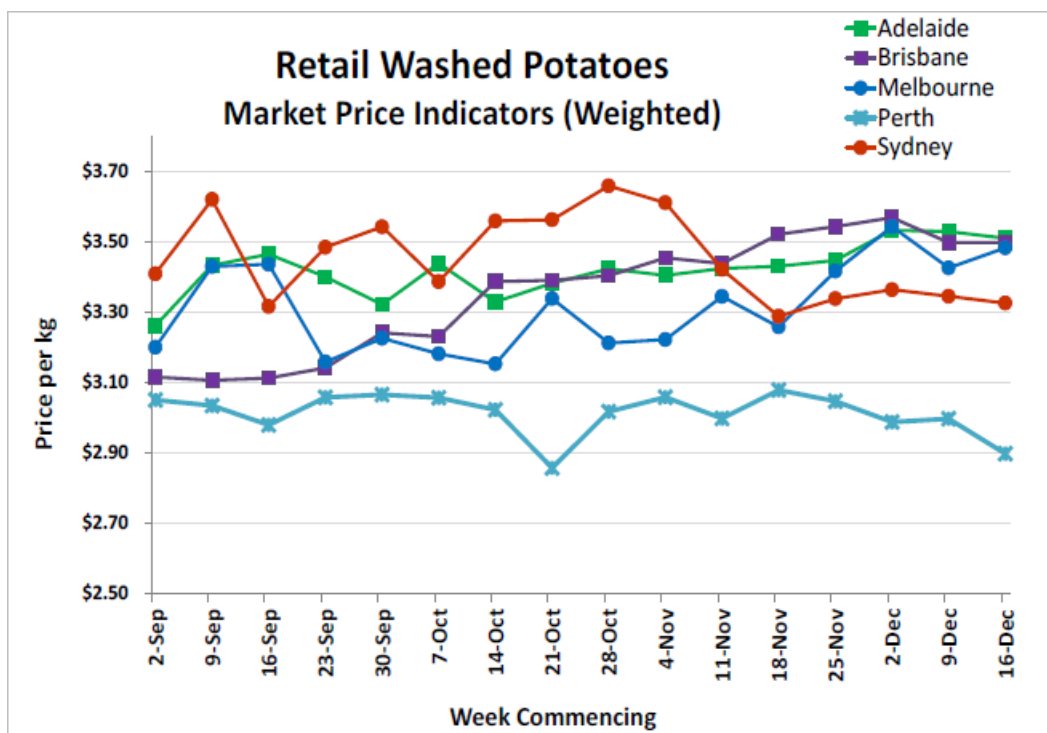


FIGURE 8: WEIGHTED AVERAGE RETAIL PRICES BY STATE: SEP-DEC 2013

It is acknowledged that the above graphs do not account for differences in consumer preferences for potato varieties or quality of produce (such as class or grade) that may contribute to higher or lower prices between states.

It is also true that not all varieties are consistently available in all states, and often the presence of individual varieties is difficult to determine due to supermarket practice of marketing potatoes by categories such as 'baby red potatoes', purpose such as 'mashing potatoes' and in-store brands such as 'Carisma', which may comprise a number of different potato varieties.

Analysis of a sample of retail price data by product category and state for the period from September 2013 to January 2014 revealed the following per kilogram price comparisons:

Variety	Cream Delight	Cream Delight	Nadine	Reds	Blues	Baby Washed	Carisma
State	Loose	Pre-packed 2kg	Loose	Loose	Loose	Pre-packed 2kg	Pre-packed 2kg
Adelaide	\$ 3.48	\$ 2.45	\$ 3.40	\$ 3.32	\$ 5.59	\$ 2.38	\$ 2.89
Brisbane	\$ 3.48	\$ 2.60	\$ 3.46	\$ 3.13	\$ 5.62	\$ 2.58	\$ 3.08
Melbourne	\$ 3.46	\$ 2.60	\$ 3.54	\$ 3.63	\$ 5.53	\$ 2.81	\$ 3.10
Perth	\$ 2.98	\$ 2.89	\$ 2.97	\$ 3.57	\$ 3.57	\$ 2.28	\$ 3.42
Sydney	\$ 3.47	\$ 2.59	\$ 3.46	\$ 3.79	\$ 5.97	\$ 2.54	\$ 3.05
National Average	\$ 3.37	\$ 2.63	\$ 3.36	\$ 3.49	\$ 5.26	\$ 2.52	\$ 3.11

TABLE 2: RETAIL PRICE COMPARISON BY PRODUCT CATEGORY AND STATE: SEPT 2013-JAN 2014³⁹

³⁹ Potato Marketing Corporation (2014), *Retail Price Tracker* - data extract



Table 2 demonstrates that over the sample period Perth prices were up to 47% less expensive (for 'blue' potatoes) than the national average, and no more than 9% higher than the national average (for Cream Delight pre-packed and Carisma pre-packed potatoes).

Marketing of Potatoes Legislation

An overview of the Marketing of Potatoes Act 1946 (as at April 2012) and the Marketing of Potatoes Regulation 1987 (as at February 2011)

The Title of the Act is:

Marketing of Potatoes Act 1946; An Act to make provision for the marketing, sale and disposal of ware potatoes and to control their production; to require the registration of growers, and the licensing of areas of land used for the production, of potatoes; to repeal the *Potato Growers Licensing Act 1941*, and to constitute the Potato Marketing Corporation of Western Australia; and for other relative purposes.

Purpose

The purpose of the Act is to ensure a stable price and the continual and ongoing supply of good quality fresh potatoes to consumers in Western Australia. The production quantities, varieties and delivery schedules of potatoes are set based on historical and anticipated demand. The price is set by PMC based on 'a level of return that should provide a reasonable opportunity for profit from the economically efficient production of potatoes during preferred planting periods in the State'.

It is important to note that the authority of the Act is limited to potatoes grown and produced in Western Australia. The Act does not preclude the importation, sale or distribution of potatoes grown in other states regions or countries.

Functions of the PMC

According to the Act, the function of the PMC is to:

- a) Regulate the production of ware potatoes so as to ensure the supply of the quantities, kinds and qualities preferred by consumers in the State;
- b) Take delivery of, and otherwise deal with, potatoes in accordance with this Act and market potatoes in the State and elsewhere;
- c) Register persons who are to be authorised to carry on business as a commercial producer of potatoes, and licence the areas of land to be used in any such business;
- d) Encourage and promote the use of potatoes and provide for the monitoring and, if thought fit, regulation of the production of potatoes for propagation or for any other prescribed kind of use;
- e) Foster methods of production and adopt methods of marketing that will enable potatoes grown in the State to compete in price and quality against potatoes from alternative sources of supply;
- f) Promote, encourage, fund and arrange for the conduct of research into matters relating to the production and marketing of potatoes, and undertake market development; and



- g) Seek and apply knowledge of new and improved techniques and materials that will assist it to perform its functions.

PMC Membership

The PMC consists of six members appointed by the Minister. Of the six members, two are elected by the commercial producers. The remaining four members are directly appointed by the Minister, who also appoints one of the four as Chairman of the PMC. The remaining three members are 'persons who have, in the opinion of the Minister, relevant commercial expertise in finance, in marketing, or in the food industry'.

Operation

All businesses engaged in the commercial production of potatoes for any purpose must apply for registration with the PMC. Any transfers of the registrations must be approved by the PMC.

Registered potato producers must also apply for an area licence and domestic market entitlement to produce potatoes. The area licence and domestic market entitlement ('DME') specify the delivery schedule, the total area to be planted by variety and total tonnes of production by variety. DME is based on tonnage and the area licence is based on expected yields. This practice is designed to promote efficiency at the grower level. Any transfer or proposed change or substitution to an area licence and or domestic market entitlement must be submitted to the PMC. A revised licence or registration will be issued, subject to approval.

Registered potato producers must also apply for a permit to purchase, sell or use potatoes. The permit specifies the buyer, producer, tonnage, variety, delivery schedule and use of the product.

The Act enables the PMC to set and enforce the specifications and standards for the grading and packaging of ware potatoes. These specifications and standards do not apply to potatoes sold to potato product manufacturers, potatoes destined for export or seed potatoes. Commercial producers must notify the PMC of the sale of any seed potatoes.

The PMC is empowered by the Act to monitor the planting, harvesting and delivery of potatoes to ensure adherence to proscribed allocations and licensing. Monitoring is accomplished through the submission of notices and declarations by market participants. Through the appointment of operations officers, the PMC monitors and enforces compliance with the Act and Regulations.

The PMC is authorised to create a Reserve Fund from the proceeds of the sale of potatoes up to an amount not to exceed 3 percent. The Reserve Fund is to be used for market research and development, and research related to the production, transport, handling, treatment, washing and packing of potatoes. In addition the Reserve Fund may be used to make payments to growers so that, in the opinion of the PMC, a fair return is made by growers when unusual market conditions prevail, and also to make payments to growers as an incentive to grow in the winter growing periods.



Cost Benefit Analysis

Impact of Legislation on Growers and Consumers

The merits of the market model and the widespread push by Governments for microeconomic deregulation are traditionally underpinned by the concept of competition.

Traditionally, competition has been understood as that process that inhibits the acquisition of market power by business firms. The intended effect is that market prices will reflect 'economic' values – that is, other than in the short term, prices will reflect the cost of production⁴⁰.

However the textbook theories of 'perfect competition' seldom exist in the marketplace and modern markets often reflect a reality in which a significant imbalance of power exists, compromising economic outcomes. Furthermore, while many espouse free market ideologies, in practice, market intervention in the form of regulatory frameworks or Government subsidisation continues to exist in some form in most economies.

Whether the impact of this intervention has the effect of hindering or facilitating the achievement of economic outcomes depends largely upon the extent and cost of intervention, and the forces at play in the specific industry.

The impact of the Marketing of Potatoes Act (1946) and Marketing of Potatoes Regulations (1987) on key economic outcomes are discussed below.

Grower Costs, Revenues, and Profitability

The operative activities of the PMC, in administering the Marketing of Potatoes legislation present a direct cost to the WA potato growing industry, and hence individual growers. The costs borne by the industry afford a range of services that the PMC is empowered to deliver on behalf of growers under the legislation, in addition to those directly associated with licencing and monitoring. The nature of these costs is discussed in further detail in a subsequent section of this report.

The role of the PMC as a 'collective bargaining' authority is likely to assist in maintaining grower revenue stability and therefore profitability, since the scale of the PMC and its authorised sales agents exceeds that of any individual grower. The relative bargaining power of the PMC therefore provides 'countervailing' power to the major supermarket chains who dominate the industry, and is likely to result in an enhanced price outcome than could be achieved independently by growers, and hence enhance individual grower profitability.

In circumstances where a season of unfavourable market conditions have resulted in poor sales prices market-wide, the legislated provision for a 'reserve fund' allows for a portion of retained funds to be returned to growers in order to provide some financial respite.

It could be argued that restrictions imposed on potato growers by the legislated environment constrain the ability of growers to pursue growth objectives to achieve economies of scale and hence limit the ability of growers to maximise economic return.

⁴⁰ Jones, E. (2006), *The Australian retail duopoly as contrary to the public interest*



However, in reality the legislated environment does not prevent pursuit of expansion into processing and export markets, only the fresh 'ware' potato market, for which the market is already constrained by domestic demand and produce perishability. It is important to note that the ware potato market is not closed to new entrants and additional DME licence was issued to three new applicants for the current growing year. Existing and new growers are also free to trade DME licence to achieve growth objectives in the ware potato market.

Lessons from the ware potato market on the east coast of Australia demonstrate that the pursuit of expansion in the absence of increased demand is unlikely to result in improved economic outcomes. A number of participants each targeting expansion in an overcrowded market in the absence of regard for consumer demand is likely to result in significant overproduction, wasted input resources and costs, and the environmental costs of produce dumping; negatively impacting profitability and in some cases causing financial collapse.

Indeed, it can also be argued that the unique access to grower information and the resultant vision of the PMC with respect to ware potato demand, supply and grower participants is likely to result in the prevention of overproduction of potatoes for the fresh market, and is therefore likely to result in cost savings to growers as they are able to apply efficient use of input resources, and ultimately enhance profitability. It will also result in less cost to the community from the dumping of potatoes and the consequent environmental cost associated with waste disposal.

Furthermore, the regulated environment in Western Australia in 2010 resulted in the world-first eradication of the potato cyst nematode. This is particularly significant since potato cyst nematode greatly increases the cost of production and can reduce potato production yields by up to 90 percent⁴¹.

WA Retail and Wholesale Customer Choice and Price

Under the legislated environment, the PMC controls the mix and quantity of varieties of potatoes grown in Western Australia for sale in the ware market.

If the PMC was to direct growers to produce the most economically efficient potato varieties according to native soil type and climactic conditions, this would undoubtedly result in the ongoing dominance of the Nadine variety. There are however, 28 varieties of potatoes grown in Western Australia.

In any case, there is no legislative provision preventing the import of ware potatoes from interstate, and in the event that varieties (and relative quantities) grown in Western Australia were inconsistent with retailer and consumer demand, the preferred varieties would almost certainly be imported to the state.

Significant R&D investment is required in order to introduce a new variety in the Western Australian environment, particularly if the variety originated in the northern hemisphere. It is unlikely that the ability to undertake the necessary investment to introduce new varieties exists within individual Western Australian growers.

It is therefore arguable that the PMC will support a greater number of potato varieties at both wholesale and retail customer level than would otherwise be available. While the

⁴¹ Department of Agriculture and Food (2010), *Potato Cyst Nematode Freedom for Western Australia*, available from: http://archive.agric.wa.gov.au/PC_94644.html



response to changes in demand may not be instant, a transition plan exists to support growers to meet known varietal demand, and until local supply grows to meet demand, new and niche varieties may be imported by retailers from interstate.

In the absence of the PMC, it is likely that growers would concentrate efforts on the most economically efficient potato varieties to produce, and a decline in varietal availability and innovation would be observed as has occurred in other vegetable markets.

For example, the Western Australian carrot industry has been growing the same varieties of carrots for several decades; varieties which surveyed growers report are not the most suited to the domestic market. Carrot growers report frustration at the lack of R&D into cultivation of new carrot varieties, since in the absence of a central carrot industry body; no investment in varietal development has been evident.

Efficient Allocation of Resources

It is worth considering whether the existing regulatory framework has attracted more farmers to grow potatoes in Western Australia than would be the case all other things being equal, and whether an alternative use for the land and economic resources may prove more productive.

The efficient application of economic resources can be defined as generating the highest possible output per unit of inputs. Efficient output can be measured in terms of yield, and economic efficiency implies the ability to generate an economic return from the inputs invested.

The International Potato Council notes that one hectare of potato can yield two to four times the food quantity of grain crops. Potatoes produce more food per unit of water than any other major crop and are up to seven times more efficient in using water than cereals⁴². It is for this reason that potatoes are the highest volume vegetable grown in the world, and the crop of choice in developing countries such as India and China.

Accessibility of water has been cited by WA potato growers as the most significant constraint to achieving greater economies of scale. Few regions in Western Australia contain large parcels of land with favourable soil properties for crop farming, and the presence of clean water aquifers underlying loamy paddocks is scarce. Water is a tightly controlled resource and, as indicated in a previous section of this report, can be difficult and expensive to acquire.

From an output perspective it has been demonstrated in an earlier section of this report that Western Australia achieves close to global best practice in potato production yields. From an economic efficiency perspective, the price volatility of potatoes (~11 percent p.a. nationally, and lower in WA), while not insubstantial, is lower than the price volatility of many other vegetables such as carrots, which have historically observed price volatility of up to 30 percent per annum, and a cumulative decline of 8 percent over the three year period to 2009⁴³. Price volatility is a key measure of risk, and presents a strong indicator of the likelihood of generating an economic return from the inputs invested.

It can therefore be considered that potato cultivation represents an efficient allocation of economic resources relative to other crop alternatives.

⁴² International Council of Potatoes (2010), *Facts and Figures About Potato*

⁴³ AUSVEG (2010), *Pricing, Cost Structures, and Profitability in the Australian Vegetable Industry*



Costs of Maintaining Status Quo vs. Removing Restrictions

The Potato Marketing Corporation as the administrator of the Marketing of Potatoes Act (1946) and Marketing Potatoes Regulations (1987) performs a valued role in the Western Australian potato growing industry. There are however, costs associated with maintaining the current legislated environment, most of which are the direct costs incurred in performing the licencing, monitoring and merchant functions of the PMC. Some of these costs would be replaced by an equivalent cost in a deregulated environment, and some may not.

It is also true that while some economic inefficiency may exist within the current market, free market inefficiencies would be introduced in a deregulated environment due to the loss of the functions performed by the PMC. These inefficiencies are clearly apparent in the eastern states market, as well as in other vegetable markets locally in Western Australia.

The question of who bears the costs of the market is also worthy of consideration. The PMC is currently self-funded by the potato growing industry and consumers of potatoes, and does not rely on government grants and taxpayer funding. In a deregulated environment some of the costs incurred would be transferred to the state and its community.

The various aspects impacting the costs of maintaining the existing legislated environment with respect to the alternative of deregulation are discussed below.

Licencing

While the Potato Marketing Corporation issues licences for ware potato growers and washer packer/merchants, licences are issued primarily for the purpose of regulating supply to the ware market and hence are issued free of charge to applicants.

There are no known cases in at least the past decade where an application for a grower licence has been met with refusal by the Potato Marketing Corporation. There are therefore no direct financial costs to potato growers or washer packers as a result of the licencing process, and the licencing process is not considered to constitute any real barrier to entry for new participants. As identified in an earlier section of this report, three new Domestic Market Entitlement (DME) licences were approved by the PMC for the current growing year.

A secondary market exists where DME licences may be traded outside the annual licencing cycle, which facilitates the exit of participants from the market and the expansion of participants seeking to achieve business growth and economies of scale. While there is a financial transaction associated with these trades, the secondary market is informal in nature and sits outside the legislative processes undertaken by the PMC.

Cost of Compliance with Licence Requirements

All potato growers are required to meet a number of compliance requirements, including the parameters of the specific DME under which they are licenced.

There have been circumstances where reasonably substantial variances occur (for example, due to growing conditions) and the PMC generally tolerates a reasonable under or over delivery of produce. There have been some instances where growers have overplanted according to their entitlement, which attracts a fine under the legislation. In these circumstances the PMC has worked with the grower to resolve the issues accordingly.



All growers are required to comply with the PMC's quality assurance program, which involves extensive testing of produce to ensure the presence of various chemicals is not detected. While this requirement is currently associated with the PMC licencing process in Western Australia, the Food Safety Standards introduced in Australia in 2001 require food businesses such as wholesalers, processors and retailers to ensure that they only accept food from suppliers that is not contaminated⁴⁴. While the Food Safety Standards requirements do not explicitly require compliance by growers, it does require compliance prior to produce distribution for sale.

Hence the cost to the market associated with quality assurance programs would exist irrespective of the PMC, whether imposed at grower level or washer-packer/merchant level. This cost is therefore not considered to contribute to the cost of maintaining the regulated environment, although it is arguable which market participant should bear the cost.

Consumer Marketing and Research & Development

The Potato Marketing Corporation undertakes significant investment on behalf of Western Australian potato growers to fund research and development programs, consumer research and consumer education and marketing programs.

These programs provide a valuable service to the WA potato grower industry; however the costs associated with these functions do not directly contribute to the cost of maintaining the regulatory environment. Rather, the loss of the direct benefits afforded to the market from these programs would be considered a cost to the market in the event of deregulation.

Several surveyed growers have cited direct benefits in terms of improvements in diversity (e.g. development and introduction of new varieties), quality and yield in potato crops as a result of the R&D programs invested in by the PMC, usually in collaboration with universities and agronomists in Western Australia.

Similarly, the PMC invests a significant amount of funding into industry advocacy and consumer education, including educating consumers about the varieties and health benefits of potatoes, and marketing campaigns to encourage consumers to eat more potatoes, or try new potato varieties or recipes. The PMC also commissions market research to identify consumer attitudes and preferences for potatoes in order to define and further develop the varieties grown by potato farmers in Western Australia.

The results of the most recent potato marketing campaign are frequently cited by eastern states potato organisations (such as Potatoes South Australia) as a success story in mitigating the decline in potato consumption, which in recent years has faced strong competition from rice and pasta (both of which are available in pre-prepared convenience packages to minimise cooking time) as well as couscous and more recently, the grain hailed as a 'super-food', quinoa.

These programs are only possible due to the industry-wide collaborative funding across the state, since no single grower would possess sufficient scale to undertake these initiatives independently. Potatoes South Australia, which is an industry advocacy group that was established in 2012 in an attempt to act as a cohesive industry body to promote and conduct research into the potato industry, has recently secured Government funding to

⁴⁴ Food Standards Australia (2001), *Safe Food Australia 2nd Edition*, available from: www.foodstandards.gov.au



progress a number of R&D projects, in a similar manner to those funded by the PMC and WA potato growers⁴⁵.

Merchant Costs

The costs associated with the role of the PMC in acting as a sales intermediary between industry and retailers to distribute ware potatoes are a mandatory cost associated with the current regulated environment. However, in a deregulated environment most growers would most likely continue to pay commissions to a merchant in order to distribute their produce to retailers. While it is possible that a grower could establish a new merchant business, the barriers to entry are high due to long established relationships between existing merchants and retailers.

The cost (or net benefit) of maintaining the PMC as the Western Australian intermediary is therefore the extent to which the cost of PMC exceeds (or is less than) the expected commissions that would be received by a merchant in a deregulated environment.

The PMC reported that the total cost to growers of all administrative and operational overheads relating to regulating the supply of potatoes and administering the Act amounted to \$2,794,591 in 2012/13, or \$53.87 per tonne of potatoes produced⁴⁶. Based on average returns to growers per tonne, this equates to approximately 7.57 percent.

It is understood that this figure includes a number of administrative functions that are empowered but not mandated under the Act such as undertaking research and development and consumer marketing programs. It is not known the extent to which this figure is therefore overstated.

Commissions to merchants for services are typically subject to commercial negotiation. These commissions are generally in the range of 15-19 percent⁴⁷ of the gross sales price.

Fragmented Market

A limitation of the regulatory environment is the potential loss of economic efficiency arising from the current fragmented market, which may impede the realisation of economies of scale and profit optimisation.

It is difficult to quantify the potential loss of efficiency inherent within the existing market structure since a number of environmental impediments to achieving economies of scale also exist, such as limited availability of suitable land and water licences, which prevents some growers from pursuing expansion plans.

Interviews with the grower community indicate that it is likely that the bigger growers in Western Australia are already optimised to the extent possible within local geographical and climatic constraints. However, it is likely that some production inefficiencies may exist at the smaller end of the grower market, particularly with respect to their ability to invest in new efficiency-driving technologies which require significant capital expenditure.

The economic inefficiencies inherent in the existing market may arguably be outweighed by the free market inefficiencies that would be introduced in a deregulated environment.

⁴⁵ Potatoes South Australia (2014), www.potatoessa.com.au

⁴⁶ Potato Marketing Corporation (2013), *Annual Report 2013*

⁴⁷ Potato Growers Association, Reported Costs of Produce Sale at Canning Vale Markets



Free Market Inefficiencies

Removal of the regulatory environment, while promoting free market economic ideologies will nonetheless result in a more opaque market. In the absence of a central co-ordinating body, market participants would have little or no insight into consumer or retailer demands, or the quantities and varieties grown by other market participants.

As a consequence it is likely that the Western Australian potato market would follow a similar pattern to that of the east coast potato market and other vegetable markets nationally. The local market would most likely be subject to periods of significant under and oversupply, which, aside from introducing significant price volatility, results in a number of other undesirable outcomes.

The most likely outcome is an oversupplied market with a potato variety mix that is inconsistent with consumer and retailer demand. Currently the PMC mandates the cultivation of lower yielding varieties such as Royal Blue which is subject to considerable consumer demand but does not currently attract a significant price premium at the retail level⁴⁸. In a deregulated environment there would be little incentive for growers to produce lower yielding, difficult to grow or new (and hence risky) varieties, unless prices were substantially higher.

Given that most retailers sell produce based on colour category rather than variety, the incentive for growers would be to plant the most profitable category varieties, and therefore most would reduce the number of varieties grown and focus on high yielding produce (e.g. Nadine). The cost to the consumer would therefore be fewer varietal choices and substantially higher prices for lower yielding or niche varietal produce (when available).

There is a substantial financial and environmental cost to overproduction as it inevitably results in dumping of produce. Overproduction is wasteful of resources such as water, chemicals, fuel and fertiliser which comprise some of the most expensive input costs and also contribute to environmental impact.

It is unlikely that the removal of the PMC would result in a significant proportion of the WA community exiting the industry. However, if this were a consequence of deregulation, the reliance upon importation for a significant proportion of ware potatoes would be to the detriment of the consumer due to produce perishability. Potatoes in Western Australia currently reach consumers within approximately one day of harvesting, and in many cases, a few hours. Reliance upon the east coast for fresh potatoes would extend this timeframe to approximately five days due to produce transportation. This is significant since the optimal shelf life for sale of ware potatoes is reported to be approximately five to seven days.

Trends and Issues Affecting the Potato Growing Industry

Competitive Environment

Analysis of the industry from a national and Western Australian perspective identifies the strategic positioning of the potato growing industry as a highly competitive market where growers face significant threats from new entrants to the market, competition from existing industry participants and substitute products.

⁴⁸ Average retail price data from Sept 2013-Jan 2014 reflects Royal Blue is priced equivalent to Red varieties, with a 60c/Kg or 20% retail price premium over class Nadine.

While traditional economics focuses on supply-side power, the potato growing industry, like other grocery suppliers, is not characterised by the existence of supplier power. Rather, in today's environment retailer buyer power is the predominant vertical force which defines the profitability of the industry. A graphical representation of the potato growing industry is depicted in [Figure 9](#) below utilising the Porter model⁴⁹.

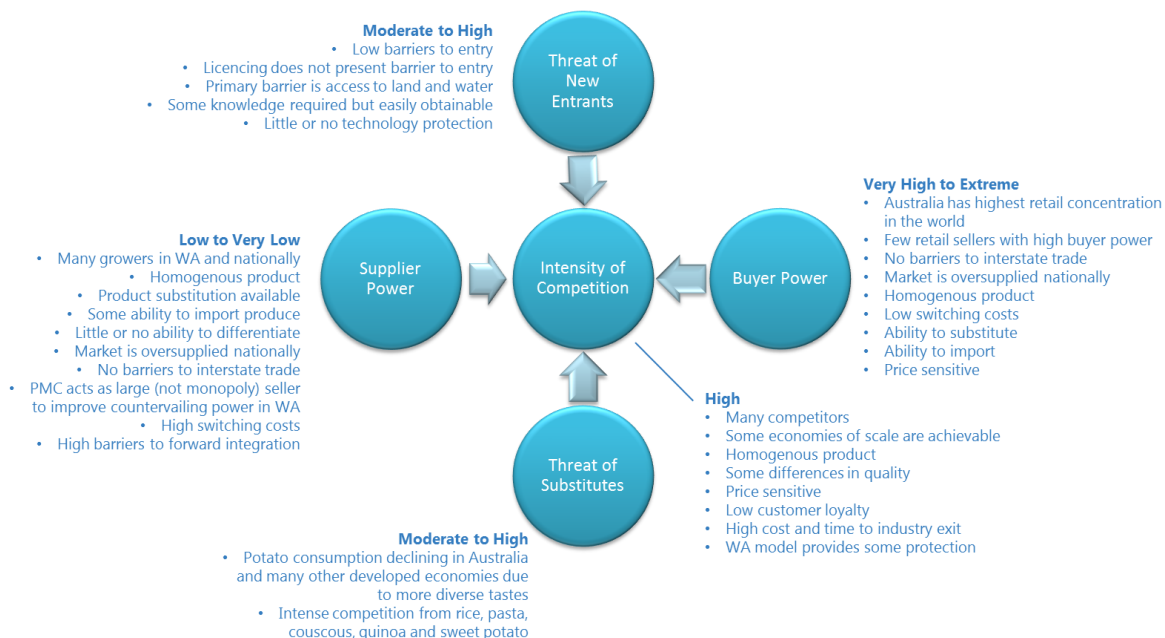


FIGURE 9: POTATO GROWING INDUSTRY – PORTER'S FIVE FORCES ANALYSIS

By virtue of a series of acquisitions over the past three decades, Australia now has the highest level of retail concentration in the world. Collectively, the duopsony retailers Coles and Woolworths account for 80 percent of retail supermarket concentration. [Figure 10](#) below illustrates the retail supermarket concentration in the Australian market⁵⁰.

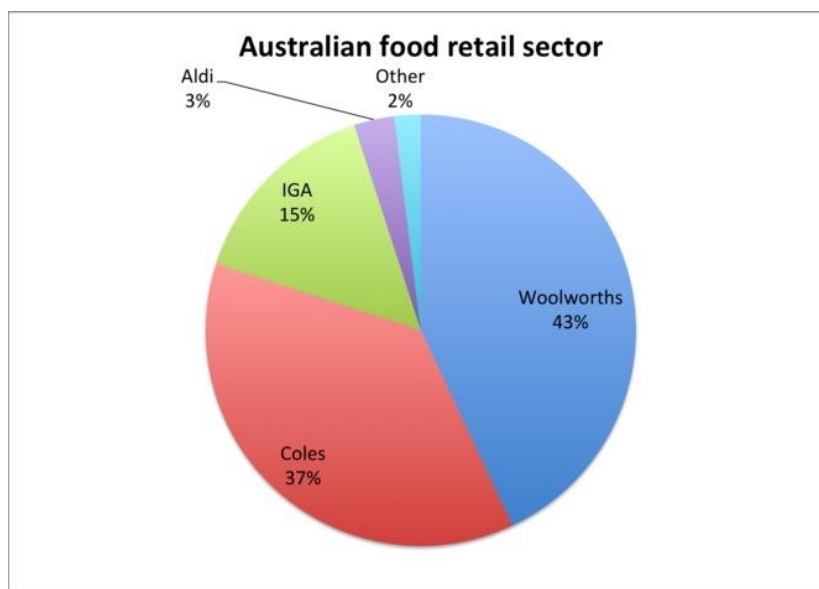


FIGURE 10: AUSTRALIAN RETAIL SUPERMARKET CONCENTRATION

⁴⁹ Porter, M.E. (1979), *How Competitive Forces Shape Strategy*, Harvard Business Review

⁵⁰ IBISWORLD, Food Retail Sector Industry Data

The trend towards industry consolidation and high levels of retail supermarket concentration has been observed elsewhere in the developed world, particularly in the UK, EU and the USA, however competition legislation in these regions has not permitted the same level of concentration as is evident in Australia. [Figure 11](#) below depicts the retail supermarket concentration observed in the UK and USA⁵¹.

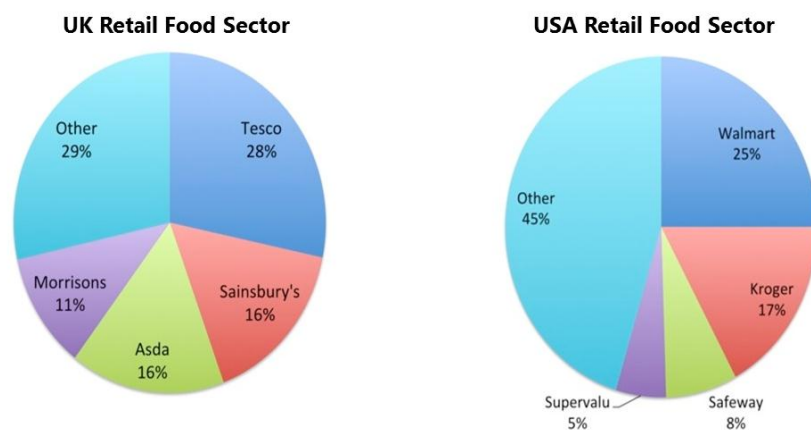


FIGURE 11: RETAIL SUPERMARKET CONCENTRATION - UK AND USA

In the UK the four largest retail supermarkets control a total of 71 percent of market share, and in the USA the sector is considerably less concentrated, with the top two organisations accounting for just 42 percent of market share, and the top four representing 55 percent of market share.

Nevertheless, over the past fifteen years the impact of retail supermarket concentration on buyer power over industry suppliers and retailer power over consumers has been well-documented, particularly in the UK. Retailer buyer power is essentially the ability of leading retail firms to obtain from suppliers more favourable terms than those available to other buyers, or which would otherwise be expected under normal competitive conditions⁵².

The UK Competition Commission, in its 2000 'Supermarkets' inquiry found that misuse of retailer buyer power can be significant to the extent of distorting competition even if the retailer controls as little as 8 percent of the total market⁵³.

In Australia, the concern of competition legislators has typically focused on whether higher levels of retailer concentration deliver benefits to the consumer in terms of lower prices. It is true that the retail duopsony has demonstrably delivered lower prices to consumers in many instances; however it is not always the case. Lower prices at Coles and Woolworths have been found to occur more often in packaged groceries, and less often in fruit, vegetables and meat⁵⁴. Despite the competition between the two supermarket giants, their prices are not consistently lower than the independent retailers; and in fact the most likely predictor of

⁵¹ IBISWORLD, Food Retail Sector Industry data

⁵² Dobson, P.W. (2005), *Exploiting Buyer Power: Lessons From The British Grocery Trade*

⁵³ Competition Commission (2000), *Supermarkets: A Report on the Supply of Groceries from Multiple Stores in the United Kingdom*

⁵⁴ Jones, E. (2006), *The Australian retail duopoly as contrary to the public interest*



lower retail prices at Coles and Woolworths is the continued presence of an independent or smaller rival in the same local area⁵⁵.

Lower prices, when genuinely offered to consumers, are one measure of the benefits afforded by the economies of scale of the retail duopoly; however they may come at a cost, particularly in the long term. Lower prices to consumers are typically achieved through extracting greater discounts and more favourable terms of trade from suppliers, which essentially equates to lower wholesale prices, or in this case, lower returns to growers.

There is a broadly held economic assumption that downward pressure on prices through the supply chain forces producers to adopt superior cost-saving techniques. However, there is a limit in the extent to which production efficiencies and thus cost-savings may be extracted in even the most economically efficient supply chains. Fruit and vegetable produce is distinguished by its perishability and is therefore (alongside meat) the most susceptible to misuse of retailer buyer power⁵⁶.

In circumstances where retail supermarkets have reached high levels of concentration, suppliers become economically dependent upon the major retailers. Suppliers typically operate under high fixed costs and cannot afford to lose a supply 'contract' as they have little or no opportunity to pick up the lost custom through orders elsewhere⁵⁷. In the example of potatoes, or vegetable growing generally, the supply market consists of a number of alternate or substitute suppliers that the retailer may turn to in the event of loss of one supplier. The same cannot be said in reverse.

At the supplier level, competition may be distorted when suppliers are forced to cut prices to the point that it endangers their continued existence. The longer-term effect of such strong buyer power has the ability to threaten the viability of even the most efficient suppliers if they are forced to price at marginal cost and are unable to cover their fixed costs. Accordingly, even large suppliers may be deterred from making product and process investments if buyer power prevents them making an adequate return to cover costs.

As a consequence, product quality, variety, and innovation are likely to suffer; all of which is to the detriment of the consumer⁵⁸.

Trends in the Australian Potato Growing Industry

The trend towards an ageing population of growers is well-documented, with many multi-generational farming families exiting the industry in recent years as younger generations choose not to continue in the family business in the face of sustained margin squeeze.

While industry consolidation is often viewed as a positive step towards achieving greater economies of scale and thus improving the economic efficiency of outcomes, there are some negative aspects to grower consolidation and the trend of ageing grower population. An industry that is unattractive to younger generations is likely to suffer from stifling of innovation and a relative lack of application of new efficiency-driving technologies.

The most recent ABARES economic survey reports that in a number of states across Australia the trends toward reduction of output and lower planting area are symptomatic of growers

⁵⁵ Jones, E. (2006), *The Australian retail duopoly as contrary to the public interest*

⁵⁶ Dobson, PW. (2005), *Exploiting Buyer Power: Lessons From The British Grocery Trade*

⁵⁷ Jones, E. (2006), *The Australian retail duopoly as contrary to the public interest*

⁵⁸ Dobson, PW. (2005), *Exploiting Buyer Power: Lessons From The British Grocery Trade*



who are experiencing difficulty in covering fixed costs and seeking to exit the market, yet finding it difficult to secure a buyer for their farms⁵⁹.

There have been a number of recent large-scale potato grower, processor and wholesaler failures on the east coast, demonstrating that economies of scale and significant supply arrangements offer little protection from business failure in the face of declining prices.

Mondello farms, a large scale potato wholesaler of processed potatoes which had operations employing 140 people in South Australia and Victoria is one such example, where the business was unable to sustain the decline in potato prices in 2011/12 and went into receivership in March 2013⁶⁰.

Some overseas jurisdictions offer substantial subsidies to potato growers, which have resulted in severe downward pressure in Australia's potato processing market. For example, the European Union reportedly provides a 27 percent subsidy on potatoes grown for the export market, which has resulted in imported processed potatoes from Belgium being offered at 95 cents per kilogram in Australia, a price at which even the most efficient of Australia's (non-Government subsidised) firms cannot compete.

Highlighting the plight of the potato processing industry, industry giant McCain recently closed its doors on one of South Australia's major processing plants in October 2013, citing rising input costs such as labour, fuel and electricity as rendering it impossible to compete with the price of imported processed potatoes⁶¹. The plant closure impacted a number of South Australian potato growers, since, the additional 300km required to transport the potatoes to the nearest Victorian plant resulted in grower production costs escalating to unprofitable levels, demonstrating how thin margins had become.

Some large-scale family growers, such as the Moraitis Group, which has a strong presence in all states in Australia and enjoys preferred supplier status to the major supermarket retailers (including a 90 percent stake in Woolworths' potato trade) and independents, recently resorted to selling out of the industry and handing over control of their businesses to a Chinese-based multi-national conglomerate⁶².

In Western Australia, the influence of the family-owned Moraitis Group has historically been a positive one, as their relationship with the PMC and large, semi-vertically integrated scale nationally facilitated the introduction of new yellow-flesh varieties for widespread cultivation in Western Australia (where these varieties would previously have been imported from other states). However, the sale of one of the biggest vegetable supply assets in Australia to overseas investors presents a worrying dilemma for the long-term future of food security, particularly if this trend was permitted to proliferate.

Some of the trends observed in the east coast market have also been apparent in the Western Australian market, although perhaps on a smaller scale and with less overall impact to the national market, reflecting WA's smaller stature and geographical isolation in the market relative to its eastern states counterparts, and the co-ordinated sales and marketing approach offered by the PMC.

⁵⁹ ABARES (2014), *Australian Vegetable Growing Farms – An Economic Survey, 2011-12 and 2012-13*

⁶⁰ England, C. (2013), *Potato Company Mondello Farms in Receivership*

⁶¹ Ockenden, W. (2013), *Jobs Go as McCain Closure Hits Potato Growers*



A trend towards consolidation exists locally in Western Australia, although the series of large-scale collapses witnessed in the east coast have not been observed here. Rather, the consolidation that has been evident in WA has been more symptomatic of natural attrition, predominantly of those seeking to exit the market either through lack of profitability or retirement. This attrition has been met with the simultaneous expansion of larger and more aggressive growers who seek to capitalise on the capacity available in the market and achieve economies of scale.

Growers seeking to expand their potato growing operations in Western Australia typically follow one of three paths – either:

- a) acquire additional DME, (whether via the PMC during the application process or via the informal secondary market) to produce greater quantities of ware potatoes
- b) grow contract potatoes for the processing market
- c) grow potatoes for the seed market

While the PMC requires that growers register their intentions under the latter two options, they do not regulate these potatoes, and growers are free to expand into these markets.

Potato growers have universally reported support for the DME system, since it provides some level of predictability that the significant oversupply problems experienced in the eastern states will not occur in Western Australia, and therefore, provided the produce grown meets the market's requirements, growers have a reasonable expectation of being able to sell their produce. Furthermore the DME system facilitates forward planning, including around acquiring key inputs such as fertiliser and chemicals, which represent major costs of production.

While evidence from the 2013/13 year points to a lack of certainty of the administered pricing mechanism to assure growers of a minimum price for their goods, nevertheless the mechanism offers some insulation from the absolute peaks and troughs encountered in the east coast market and provides a reasonable expectation that the grower should be able to cover their fixed costs in most circumstances. Furthermore, growers are consistently paid for their produce within 14 days, which provides some reliability around cash flow management.

It is for these reasons, that surveyed growers have had the confidence to undertake major expansion plans, leveraging their existing capital investments to deliver greater economies of scale, whether in the ware, processing or seed markets.

Conclusion

The legislated potato growing environment in Western Australia would seem *prima facie* an unnecessary imposition on free market mechanics. However, the WA potato industry's status as the last remaining regulated vegetable produce environment in Australia is not in itself justification for removing the legislative code in the absence of any demonstrable impediment to achieving positive market outcomes.

Little formal review has been undertaken to date on the economic effectiveness of other (unregulated) grower produce markets, however there is evidence to suggest that the anticipated benefits of widespread deregulation have not been realised in these markets. Specifically, many other grower produce markets are characterised by excessive supply and



price volatility, unreliable grower cash flow and a lack of investment into new varietal development.

It is difficult to argue that economic benefits will be brought about by emulating a regime that has resulted in an oversupplied east coast market and a string of large-scale potato industry failures with widespread produce dumping and wasted input resources. Indeed Federal Agricultural Minister Barnaby Joyce was recently quoted as considering that an oversupplied market posed the most significant threat to the Australian horticulture industry⁶³.

There appears to be no adverse impact either to the grower or the consumer from maintaining the existing legislated system in Western Australia.

Analysis of ware potato grower efficiency has demonstrated that while Western Australia does experience high input costs (as is the case in most industries in WA), local growers are achieving close to world's best practice in production yields, and the high input costs are not passed on to consumers in the form of higher retail prices.

In fact, the combination of higher input costs and a prevailing market price that is essentially driven by the east coast market has resulted in WA growers operating on tighter margins than many of their east coast counterparts, necessitating a focus on the efficient use of resources and minimising input wastage.

Potato growers do not generally view the Domestic Market Entitlement licensing scheme as an impediment to pursuing business growth and economies of scale, rather the dynamics of balanced supply and demand, and relative certainty of selling produce at a reasonable price is considered by many as an enabler to expanding into processing and seed markets.

Investigation of farm-gate pricing in WA demonstrated that the PMC cannot exercise any adverse supply-side power in the ware potato market, since the prices obtained for WA-grown ware potatoes recently failed to achieve recommended pool prices and resulted in downward revision of recommended prices for the current year in line with national trends.

This finding is significant as it evidences the interdependent nature of the WA market with the national deregulated market, despite the existence of a collective bargaining body. The prices achieved however remain above that which any individual grower could expect to negotiate independently, and therefore as indicated above, provide some level of financial sustainability to the grower industry.

Retail price comparisons between states clearly illustrate that WA consumers are not disadvantaged by the legislative environment in terms of the price they pay for comparable produce, since Western Australian retail prices are consistently lower than the national deregulated average retail price when compared against the same product category and quality grade of produce.

It is true that some differences exist in available varieties between states, and the consistency of year-round availability of some new or niche varieties also varies. However the impact of the PMC's development program to embed new varieties in Western Australia is evident, since, of the 28 varieties currently produced in Western Australia, most growers surveyed reported cultivating between 9 and 12 different varieties of potatoes at any one time.

⁶³ AUSVEG (2014), *Potatoes Australia: The Minister's View* (pp12-13)



The removal of the PMC would be likely to result in the cultivation of fewer varieties in Western Australia, with less innovation and a decline in cosmetic product quality, as these continuous improvement programs (currently initiated and led by the PMC) would be sacrificed by growers in a bid to further curtail costs in an uncertain market.

There is no evidence to suggest that removal of the legislated environment would result in lower prices to consumers, however it is possible that consumer prices may increase, and it is highly likely that they would be subject to significantly greater volatility.

As a result, there is no real evidence to suggest that removal of the Potato Marketing Act would deliver benefit either to consumers or the grower community.

Based on the current performance of the WA ware potato market and the improvements made to date it therefore seems appropriate to maintain the existing legislative framework and continue to develop the suite of industry continuous improvement initiatives to enhance production efficiency, produce quality and varieties in Western Australia.



Appendices



Appendix 1: Ware Potato Varieties Grown in WA

Variety	Colour	DME/Trial
Purple Delight	Blue	Trial
Royal Blue	Blue	DME
Almera	Cream	DME
Banana	Cream	Trial
Cabaret	Cream	Trial
Carisma	Cream	DME
DUTCH CREAM	Cream	DME
Kipfler	Cream	DME
Lady Christl	Cream	DME
Melody	Cream	Trial
Nicola	Cream	DME
Orla	Cream	Trial
Sifra	Cream	Trial
Laura	Red	DME
Mozart	Red	Trial
Rodeo	Red	Trial
Romeo	Red	DME
Ruby Lou	Red	DME
Virginia Rose	Red	DME
Delaware	White	DME
Emma	White	Trial
Harmony	White	DME
Kestrel	White	DME
Maris Piper	White	DME
Marlin	White	Trial
Mondial	White	DME
Nadine	White	DME
White Star	White	DME

Updated 23/01/2014

⁶⁴ Potato Marketing Corporation (2014), Data Extract