



Australian Fresh Potato Industry Strategic Investment Plan

2012 - 2017



Horticulture Australia





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Australian Fresh Potato Industry
Strategic Plan, 2012-2017

Prepared For



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Executive Summary and Summary of Recommendations



Introduction, Vision and Mission Aiming to guide 2012-2017 R&D investment decisions, and to give direction to the declining yet resolute Australian Fresh Potato Industry, this Plan's Vision is "To have a strong Australian Fresh Potato Industry that is profitable, innovative and forward-looking". The Mission is "To be a well-trained, state-of-the-art, market and growth oriented industry". The true source of criteria for R&D investment is an understanding that getting an acceptable product for which there is demand is the way forward for the industry.

The reference points that dominate the plan are the declining demand for fresh potatoes in Australia; and the reality that the prerequisites of success in the industry are scale, access to marketable varieties, and links with retail outlets. Total Australian potato production, around 1.25m. tonnes p.a., is some 0.35% of world production. For the moment, distance and quarantine factors are de facto protection for the Fresh Potato

Industry, although imports of processed potato are significant. Potato production is rising in Europe and Asia, with China producing 73m. tonnes p.a.

Situational Analysis This Fresh Potato SIP parallels a new Processing Potato SIP. Both industries would benefit from closer collaboration and working together. There are more than 1,000 potato growers in Australia, but the number, especially of seed growers, is falling.

With science increasingly important in agriculture, and Australia's industry basically uncompetitive, R&D is vital for the future, and a business approach is essential. But the current fixed levy provides only \$0.5m p.a., and despite some R&D successes there is little support for increasing the levy. Successful research needs to be more effectively 'got out into the paddock', the newly created Potato Industry Extension Program has a key role in this, and the industry needs to get its

hands on maximally beneficial R&D in 2012-2017.

Turning to production, demand and costs: over the seven years to 2011, Australia's fresh potato production fell by 15.5% (94,000 tonnes), while the population grew by 12.5% (2,500,000 people). We estimate 2010-2011 fresh potato per capita consumption at 20.6kg, and falling. Declining consumption is widely attributed to dietary and convenience factors, but it is hard to know in the absence of a recent or serious analysis.

Australian production costs are high: in some respects we are heavily off the pace in competitiveness internationally, with labour costs not the only problem, but also land, seed, fertiliser, water, and interest forming part of the comparative equation.

Product development in recent decades has transformed the Fresh Potato Industry, including washing, year round supply, new varieties, Plant Variety Rights and brands – and change keeps happening. Implications include the need for scale – e.g. annual planting of 120-200 hectares minimum; and restricted grower access to some popular varieties. There are different 'takes' within the industry on the incentives for product development.

On the marketing side, 'profitability in open markets' is hard to find; 'how to deal with supermarkets and other big buyers' is an outstanding issue for growers; and tie-ups between growers and big retailers restricting grower access to desirable varieties ('closed loop marketing') are powerful factors. Whether competition is disappearing or simply changing is hard to fathom. Some producers see potential value in generic marketing, and others are skeptical.

On the structural and organisational side, the industry is historic, fragmented, multi-layered and diffuse: it is hoped that a strong industry perspective can emerge. There are multiple deep-seated issues – including training, ageing, the difficulty of adopting a business perspective – and fresh growers are constantly exposed to the market. A lot of work is going into industry

communication and development, with the Potato Industry Extension Program giving new impetus to technology and practical research benefits. Overall, the current situation of Australia's Fresh Potato Industry is not strong, but there is considerable resolve within the industry.

Objectives Moving from 'where we are' to 'where we want to be', this Strategic Investment Plan recommends four main objectives: (1) to increase innovativeness, (2) to increase usage of practical research findings, (3) to enhance communication and well-founded understanding of the market for fresh potatoes, and (4) to advance more effectively the cause of the Australian Fresh Potato Industry.

The specific components of these objectives are spelled out, in the form of 'SMART' imperatives – four or five imperatives for each objective - under the Summary of Recommendations heading below. The recommended apportionment of the available R&D levy funds, assuming the required portion of the total funds will have been taken out to cover administrative and overhead type requirements, is: 36% for Objective One; 18% for Objective Two; 41% for Objective Three; 5% for Objective Four. These apportionments need to be related to the specific components and SMART imperatives for each objective that are spelled out below.

Strategy The strategy – the high-level guiding idea - proposed to get from 2012's reality to the 2017 objectives is to empower the industry and give it the capacity it will need if it is to achieve its objectives – and secure its future. This strategy includes getting fresh information to growers, conveying approaches to unlock latent capabilities, providing perspectives to alter mindsets, reshaping preoccupations, inculcating attitudes to refocus priorities, convincing growers to work together, attracting new leaders to step forward. AUSVEG will need to play the key organisational role.

Action Plan A package of five initial action points is proposed to start the industry on its strategic journey, namely to:

- bring to the industry something to work with;
- infuse more energy into the industry;

- foster a willingness to innovate;
- get a standout practical research result out to the paddock; and
- get grower recognition that the industry's future is substantially in its own hands.

Together, these points will provide a basis to engage with this SIP.

In concluding this Executive Summary, we thank everyone who has supported the production of this strategy plan, and wish the industry every success in making the plan its own, engaging with it, and achieving as the outcome a strong and secure future.

Summary of Recommendations The four recommendations, each with several 'SMART' imperatives, are as follows.

1. Increase innovativeness.

- (i) Initiate and engage the industry with a creative scoping study of potential new and innovative fresh potato products and potatoes.
- (ii) Foster a more professional and innovative business development approach in the industry through a targeted "short course" training program delivered to at least 150 growers.
- (iii) Seamlessly complete established R&D programs, decide form (e.g. program or individual project approach) and specific content of R&D for the 2012-2017 years, with possible inclusion of some promising projects for product innovation.
- (iv) Establish (in collaboration with the Processing Potato Industry) an accessible industry training program, initially to Certificate IV level, in collaboration with a quality dual-sector University or VET provider.

2. Increase usage of practical research findings.

- (i) Identify the top four 'game-changing' practical research outcomes from available research programs.
- (ii) Operationalise these outcomes into packages that growers can use without specialist knowledge.
- (iii) Communicate and advocate the packages to all growers, conduct forums on the packages

for all growers, provide backup support on request for grower implementation of packages.

- (iv) Crystallise in an implementable format other practical research outcomes from industry R&D and other available research programs.
- (v) Build grower belief in the practical value and usability of the industry research program to the point where 85% of growers are prepared to implement the recommended measures.

3. Enhance communication and well-founded understanding of the market for fresh potatoes.

- (i) Conduct benchmark market research, including comparative and international literature reviews, leading to a comprehensive industry understanding of factors – particularly factors susceptible to influence - involved in reduced consumption, non consumption, first-time consumption, and increased consumption of fresh potatoes (including innovative/new fresh potato products and potatoes) in Australia.
- (ii) Build and circulate (in collaboration with the Processing Potato Industry) a benchmark body of generic information about consumer/community/government attitudes, behaviours, etc., towards the industry and its products, including comparative international and industry information, by which the industry and individual growers can measure themselves and lift their game.
- (iii) Develop a grower-friendly online communication network with more than 200 growers.
- (iv) Have fresh potato growers well informed, including through case studies, about how to obtain, improve and increase market access for their produce.
- (v) Circulate to growers benchmarking information about potato growing, desirably in a case study style, and including inspiring examples.

4. Advance more effectively the cause of the Australian Fresh Potato Industry.

- (i) Have the industry giving positive and united support to its agreed objectives and strategic direction.
- (ii) Have regular media stories about research and other matters that are positive for

Australian fresh potatoes as distinct from fresh potatoes from other countries.

- (iii) Have the Australian potato industry recognised as a valuable, forceful and iconic farming and manufacturing player.
- (iv) Have an established information resource – such as a website or pamphlet – available to support the industry and industry advocacy, and to underpin the industry's position.

“The Mission is ‘To be a well-trained, state-of-the-art, market and growth oriented industry’ ”

- Stride Consulting

Strategic Investment Plan Formation

Consultation: Consultations were conducted with approximately 50 people on an individual basis, both face-to-face and by telephone. Visits were made to South Australia and Tasmania as well as regional Victoria. The contact list and agendas for these consultations were developed in the light of the initial HAL briefing, discussions with AUSVEG, and preliminary desktop research including perusal of the two 2006-2011 Potato Industry SIPs. There were several follow-up discussions after the first milestone report was submitted. There were meetings with the two IACs after the draft reports were submitted. Following those meetings, a considerable number of written comments and suggestions were received and acted on in preparing the final reports for each of the industries. A single consultation process was used for preparation of the two SIPs; this worked well, with many insights from each industry proving useful in preparing the report for the other.

Review Process: The Fresh Potato Industry Strategic Investment Plan will be reviewed at least annually as part of the HAL Industry Advisory Committee priority setting process that occurs in August-September each year. Additionally, the outcomes of the APRP2 review being conducted in late 2012 will be considered by industry for incorporation into the Fresh Potato SIP. Broader industry consultation and input into the planning process for the 2012-17 SIP will occur both at the Annual Levy Payers Meetings and also during regular regional industry extension workshops.

Revised Plan Justification: The most recent Fresh Potato Industry Strategic Investment Plan concluded at the end of 2011. Whilst it was necessary to update the plan to capture the future investment strategies for the sector, it was understood that the broad strategic imperatives were unlikely to alter significantly in the short to medium term. In addition, a significant proportion of funding commissioned as part of the previous Strategic Investment Plan meant that minimal funds were available for further R&D investment until 2015. As noted in the latest Fresh Potato SIP, there are spillover benefits from a number of plant health related R&D projects currently undertaken through the HAL funded Australian Potato Research Program 2 (APRP2). A significant proportion of the APRP2 program is also commissioned through until the end of 2014. A comprehensive review process is being undertaken on APRP2 and other related Potato R&D in late 2012, the results of which will provide future detailed investment priorities for Potato R&D, the outcomes of which the Fresh Potato sector will continue to enjoy spillover benefits from.

Government R&D priorities: This Fresh Potato Industry SIP is closely aligned to Federal Government Rural R&D priorities as exemplified below. The importance of productivity and competitiveness is a central focus of the analysis, including operationalisation of practical research findings and ‘getting research into the paddock’. A series of measures to increase innovation and add value – including skills training – comprise a central component of the plan’s recommendations. Increased use of technology, especially in resource management, is presented as a key mechanism for achieving industry gains, including in productivity. Supply chain issues, which are of critical importance for the Fresh Potato Industry, are addressed. Issues of falling demand, and the need for a well-founded industry understanding of the market for fresh potatoes are the subject of a major recommendation. The Fresh Potato Industry contributes to industry-wide programs in regard to government priorities relating to climate change, climate change variability and biosecurity.

Section 1.

Introduction, Vision and Mission



This strategic plan has two purposes, which are distinct but interrelated.

- The first is to provide guidance, with an economic basis, for decisions on future R&D investment of grower levies, including Commonwealth matching funds. In regard to this purpose, the project brief calls for 'SMART' objectives, a clear rationale for investment decisions, the allocation of resources against objectives, and economic analysis of investment decisions. In practical terms, this means providing economic bases for allocating funds to various R&D areas.
- The other purpose is to give direction to Australia's Fresh Potato Industry. Prospects are problematic, and industry members need a pathway through changing realities. They are aware of the realities that dominate the industry. They know that demand and marketability are issues, and that potatoes are not what they were in the marketplace.

They would like a way to get ahead, and accordingly there needs to be a sharp focus on upcoming as well as current issues and opportunities.

We hope this plan will help industry members, industry bodies, and the industry as a whole, in their business decisions. The project brief calls for spelling out what the industry is trying to achieve, and recommending on the scale of action required. In simple terms this means developing a strategy for product development, and increased implementation of practical research.

In consequence of these purposes, this plan is about the Fresh Potato Industry itself, and about the market for fresh potatoes and fresh potatoes as a product. These are the real priorities. Looking forward to the year 2017 and the ongoing challenges of profitability and dynamism, this

triple focus points the way to the necessary strategic direction for Australia's Fresh Potato Industry. Boiled down to essentials, the industry's way forward to a sustainable future is to get an acceptable product for which there is strong and secure demand in the marketplace. If this can be done, the industry can be sustainable and profitable. An understanding of these fundamentals is the true source of criteria for R&D investment.

Four points of reference dominate this plan. It is increasingly rare and difficult for growers to operate outside these reference points. It is not possible to understand the industry without keeping them in mind. It will likely be necessary for the industry to get around at least some of them to secure a thriving future for itself.

- The first is that demand for fresh potatoes appears to be in decline in Australia.
- The second is that production on a substantial scale is increasingly a prerequisite to be a player in Australia's Fresh Potato Industry – small or boutique growers possibly excepted.
- The third is that access to (i.e. production of) a marketable variety or brand is increasingly a prerequisite of selling product successfully.
- The fourth is that operable links with a strong outlet or retailer is increasingly a precondition of being profitable in the Fresh Potato Industry.

The Vision that we propose for the industry is: "To have a strong Australian Fresh Potato Industry that is profitable, innovative and forward-looking." The concepts employed in this vision are clear and simple, yet far-reaching and optimistic. The concept of strength is given pride of place in recognition that the industry must not let itself fall away, and may need to re-invent itself. Requiring that the industry must be profitable will enable it to attract people with capacity. Requiring that the industry must be innovative is about it being able to take fresh directions with what it does and is. Requiring the industry to be forward-looking will enable it to thrive on change.

The Mission Statement that we propose for the industry is: "To be a well-trained, state-of-the-art, market and growth oriented industry." The concepts employed in this mission statement are

demanding and focused. To be well-trained is the only way to do a proper job. To be state-of-the-art is the only way to be up with the game, or ahead of it. A market-orientation is the only guarantee of responsiveness to demand, and growth-orientation is the mindset required in a period when world consumption is increasing even though Australian consumption may be declining.

As demonstrated below, this plan comes at a critical time for Australia's Fresh Potato Industry. Levy-funded R&D – around \$0.5m per annum or \$2.5m over the 5-year life of the plan – is of great importance, but as has been pointed out to us, it is not a large amount, especially when overheads are taken out. As the current situation stands, the industry needs to find a way through a variety of issues including demand, costs, market power, product development and brand development if it is to have a dynamic, market-oriented, and growth-oriented future. Our perception is that so long as distance and quarantine factors operate as de facto trade barriers, the industry is not at risk of collapse. But despite the fact that potatoes are still Australia's largest vegetable crop, and despite the fact that there will always be demand for potatoes, the industry could, in relatively few years, become a shadow of what it was if the declining consumption of fresh potatoes is simply left to slide.

This plan is being prepared in parallel with a corresponding plan for the Australian Processing Potato Industry. The two 'industries' are in a sense parts of the larger 'Australian Potato Industry'. There are various perspectives on how similar or different the two 'industries' are. Those who grow processing as well as fresh potatoes are no doubt conscious of many similarities – particularly in the growing phase – as well as a number of differences. But it is worth being aware that processors say the two industries have very little in common. The processors certainly give a degree of structure and perhaps leadership to the processing industry, and procedures like benchmarking can be introduced in a way that would not be possible in the Fresh Industry. Another significant difference is that in the Processing Industry, the processors and the growers both pay the R&D levy of 50 cents per tonne, whereas the growers are the only levy payers in the Fresh Industry.

Whatever view be taken of the similarities or differences or relationships between the Fresh and the Processing Industries, it is our view that they would both benefit and be significantly strengthened if they would collaborate and work closely together, particularly in the implementation of their respective strategy plans. A number of the specific objectives in both strategy plans are explicitly proposed as collaborations.

It is useful at the outset to give some perspective on Australia's potato industry as a whole.

- In broad terms, Australia's total levied potato crop – both processing and fresh - in the years leading up to and following 2010 was fairly constant at around 1½m. tonnes per annum. This was down some 10% from the early years of the decade.
- Australia has about 0.35% of world potato production and was the 35th largest producer in 2008¹. The largest producers at that time were China (73m. tonnes), Russia (36m tonnes), India (25m tonnes), the Ukraine and USA (each 19m. tonnes).
- World potato production is around 325m. tonnes per year. Potatoes are in the big league, with meat production at something over 200m. tonnes per year, rice at around 550m. tonnes per year, and wheat at something over 600m. tonnes per year.
- Australia's potato crop is worth around \$480m., although good statistics are elusive.
- Potatoes are produced in all Australian states, and distance is an issue. Different states have different issues, e.g. productivity in one, land sustainability in another, shelf life in a third. Crisping plants use a large diversity of sources of supply, and bring product from far and wide at different times of the year from different parts of Australia.
- According to ABS figures there were 1,176 growers in 2009-10, but there are industry observers who believe this could underestimate the reality by as much as 50%. The number of seed potato growers has fallen substantially.
- The crop is grown on around 36,000 hectares

of land with an average yield of something over 36 tonnes per hectare.

- There are two major international potato processing firms operating in Australia, each with plants in multiple states; there are two major potato crisping firms; in 2010-11 there were also some 37 smaller processors.
- Production of fresh potatoes is declining as a proportion of total Australian potato production. Processing potato production is moving towards 60% of Australia's total potato crop – 744,842 tonnes (59.2%) in 2010-2011, up from 738,595 tonnes (58.6%) in 2009-2010, and 706,011 tonnes (55.3%) in 2008-2009².
- Imports of processed potato product are large and growing. Imports grew from 15,000 tonnes in 2003 to over 100,000 tonnes in 2008³. In July 2011, some 10,000 tonnes of frozen potato product was imported into Australia, followed by 12,000 tonnes in August, 9,000 tonnes in September, 11,000 tonnes in October, nearly 17,000 tonnes in November, and 18,000 tonnes in December⁴. We understand that manufactured crisps were imported for the first time in 2011 for Home Brands, the weight/volume ratio having previously been a natural trade barrier.

“...Ongoing transformation of horticulture dictates that the Australian Fresh Potato Industry needs to make sure it is on the right wavelength when it looks at its future from a strategic perspective”

- Stride Consulting

The massive scale and increase of potato production in third world countries appears as something of a standout fact for Australia's potato industry as a whole, and the Fresh Industry in particular. It suggests it would be a serious mistake to think of potatoes as 'yesterday's' vegetable. It also suggests it would be a serious mistake not to think of fresh potatoes either as a potential Australian export – or as a possible import for Australia.

At another big picture level, the profound and ongoing transformation of horticulture dictates that the Australian Fresh Potato Industry needs to make sure it is on the right wavelength when it looks at its future from a strategic perspective.

One requirement in order to be on the right wavelength is acceptance that “farming is largely science, and the science must largely be accessed by technology”. The following 22 February 2012 story from *Stock and Land*, while not specifically about potatoes, broadly illustrates what science is doing:

Long ignored by conventional farming practices, soil microbes are now in the spotlight as the key to new productivity breakthroughs for agriculture.... Biophysicist Iain Young forecasts a time when knowledge of how soil microbes work will lead to “designer soils”. “Soil is the most complex biomaterial on the planet, and it’s because of that complexity that we survive,” he said. “In a handful of fertile soil there are more organisms than all the humans that have ever lived. We know, because we have counted them.” Microbe counting and identification has only recently become possible using new molecular tools, which is why around the globe, scientists are modifying the long-held view of soil as a bucket, readily topped up with a nutrient cocktail when depleted, with the understanding that soil is an ecosystem. “When you understand soil as an ecosystem, you realise that if you alter one component of the system, it has knock-on effects,” said soil microbiologist Pauline Mele. “Ten years ago, we only knew about one per cent of the organisms in the soil. The new tools are showing us the other 99 per cent.”

The fact that farming is science indicates there may be fewer limits to potential in terms of production and suchlike outcomes than are generally thought.

The essence of a second requirement to be on the right wavelength may be found in the following formula for successful farming, which was suggested to us by a leading primary production and farming figure – not actually a potato grower:

- “You have got to increase your productivity,
- you have got to reduce your costs,
- you have got to increase your acreage, and
- you have got to keep doing it year after year.”

Even on its own terms this formula is not easy, but it becomes even harder with the extra requirement that “you have got to sell at a decent price”.

More broadly, the aspects of wavelength that this formula brings into play include taking advantage of change and technology, ensuring integrated management of the whole farm operation, adopting a relentless business approach focussing on efficiency and the maximisation of production, and recognising the contribution of operating on a larger scale.



This plan attempts to give due regard to these two requirements.

The structure of this strategy plan is illustrated in the following indicative flow chart, which aligns with the HAL Strategic Planning Guidelines approach.



A separate section of the plan is devoted to each of these elements, and the structure of the plan plays out as follows.

- Section One, entitled “The Situational Analysis”, sets out and explains where we are as an industry in 2012. This scene-setting

section is designed to provide as much information as possible which is salient to the later sections of the plan. The situational analysis needs above all to inform the strategy.

- Section Two, entitled “Objectives”, sets out, amplifies and explains the Australian Fresh Potato Industry’s objectives, and particularly its objectives for the five years from 2012-2017. These objectives must not only be aspirations. They must also be practical goals which can be given specific meaning and realistic form.
- Section Three, entitled “Strategies”, is a broad proposal for getting from “where we are” to “where we want to be”. This proposal is the high-level “How-To” guiding idea that forms the heart and soul of any strategic plan.
- Section Four, entitled “Action Plan”, spells out and explains in detail the specific things that need to be done in order to implement the strategy, to achieve the objectives, and thus make them into reality.

In turning to the substance of this strategy plan, we are acutely conscious of its potential importance to the individual people, and the companies, that make up Australia’s Fresh Potato Industry. One thing that stands out to an observer coming to grips with the Australian Fresh Potato Industry is the combination of hard work and dedication displayed by the people who produce these remarkable foods. The human side is inescapable, despite the fact that everyone knows that potato production in the twenty first century has to be a business rather than a way of life. The plan is designed as a working document with practical value for growers as well as Horticulture Australia Limited (HAL), AUSVEG, R&D funding allocation bodies, and other authorities. Against this background, we start with an analysis of the industry’s current situation.

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1. According to the 2008 Australian Year Book
 2. Seed is around 8% of Australia’s total crop, and forms part of the ‘fresh’ crop.
 3. Only processed potato was imported, due to quarantines.
 4. Frozen imports come as product, not whole potatoes. As a rule of thumb, takes roughly 2 tonnes of potatoes to make 1 tonne of frozen potato product such as fries.

Section 2.

Situational Analysis



This section of the report describes and explains the current situation of the Australian Fresh Potato Industry in four sub-sections. The first covers the Levy, the Research and Development (R&D) it supports, and their importance to the industry. The second examines production, demand and costs. The third considers competition, product development and the market. The fourth explains industry structure and organisation, including aspects of industry communication. As noted earlier, the aim is to include in this situational analysis everything about the current situation that is salient to the proposed industry strategy and action plans.

From one perspective, the picture that emerges from this analysis is of an industry that is up against some tough issues, and whose future will not be plain sailing. But as pointed out in the course of the analysis, it is possible to take another perspective on the industry and its

environment, from which there might be substantial opportunities for the industry if it is willing and able to tackle a real challenge.

The Levy and R&D

Australian fresh potato growers pay an R&D levy of 50 cents per tonne on their potatoes. Levy funds can be used for projects “with the objective to improve efficiency, product quality, sustainability and the ability to supply and respond to market needs”¹. The funds cannot be used for marketing – a separate marketing levy would be needed for that – but it is permissible to use them for market research. Currently, no levy funds are used for market research, and so far as we are aware no market research on fresh potatoes is being undertaken in Australia. The possible value and appropriateness of generic market research for the Fresh Industry in the 2012-2017 period

is considered below in the sub-section headed 'Competition, Product Development and the Market'.

In 2010-2011, fresh potato R&D levies totalled \$256,887. Falling production has led this levy to trend downward in the last decade. In 2003-2004, the levy yielded \$303,983, and in 2004-2005 \$315,665; but levy funds have dropped in each of the last three years, and they are budgeted to drop a further 4.6% in 2011-2012. These are actual dollars, with no adjustment for inflation. We understand that fresh growers are not, at least currently, of the view that levy funded R&D provides benefits that would justify any increase in the levy. At the same time, a number of industry leaders are conscious that the current levy collections are insufficient to do what needs to be done, and there is a view that a clear explanation to growers of why increased levy funds are required may generate interest in looking at increasing the levy. The R&D levy is matched dollar for dollar by the Commonwealth. This brings available funds in the Fresh Industry for 2010-2011 to \$0.51m. The industry is conscious that this amount is only one third of the value of the Processing Industry levy, which totalled \$1.49m in the same year. Voluntary contributions are also eligible for matching Commonwealth funding, and there are sometimes opportunities to leverage funding and develop shared projects.

Levied R&D funds are significantly used for research on pests and diseases – which are often carried in the soil. Pests and diseases are a scourge in the potato industry – and currently, the threat of Zebra chip crossing the Tasman overhangs the whole Australian potato industry. The 2011 Potato Industry Annual Report lists 23 projects in the Fresh Potato R&D program, of which 12 are funded by voluntary contributions, the remainder by levy funding. Projects include cultivar improvement, virus and molecular diagnostics, PCN management and protocol, pathogen testing service, seed export competitiveness, fertiliser requirements, and production opportunities – as well as Zebra chip contingency planning. The levy is also contributing funding for implementation of the industry communication strategy, and for *Potatoes Australia*, conferences and consultations. In addition, the levy makes modest contributions to programs covering horticulture more broadly, such

as food security and the National Climate Change Research Strategy for Primary Industries.

It is not surprising that there is a variety of perspectives within the industry on the practical value of R&D research.

On the positive side, while accepting that R&D inevitably has its disappointments², and that success can never be guaranteed, we have been advised that there have been a number of significant wins and benefits in recent years coming from Australian (though not necessarily fresh) potato industry funded research. These include control of common scab disease, which has saved a lot of money; rhizoctonia control which has been useful in relation to rotation; development of green manure which is valuable for a number of growers; the timing and application of irrigation, which has caused some big turnarounds in productivity; controlled traffic work which has reduced the damage caused by soil compaction. DNA work has been very successful, including international collaboration in particular cases of soil DNA where Australian R&D workers have been able to access and make use of research in other countries which had previously isolated problems which are actually being experienced in Australia. International collaboration of this kind must obviously be a two-way process, and Australia needs to be willing to give back as well as take.

Perhaps the best evidence of the value of this aspect of R&D over recent years is the increases in yields achieved by a number of growers who have taken research seriously, and have found ways to use it in their paddocks. It is these growers who have been lifting their yields to 60+ tonnes per hectare. They have been drawing not only on work on pests and diseases, but also on broader matters including land use and irrigation as having a key role in increasing productivity, reducing costs, and making the industry more competitive. The generalisation noted in the introduction that 'farming is science' certainly sends a clear message that the potato industry would downplay the value of R&D at its peril.

But our perception is that R&D along these lines has relatively low priority in Fresh Potato Industry thinking.³ It is common to hear comments about the difficulty of getting projects up, the lack of

funds, the rarity of benefits, the frequency with which projects relate to problems in other states or other places, the high cost of following up on useful findings. Some potato growers doubt they could ever get on top of pests and diseases. The industry's mindset regarding pests and diseases – including relevant R&D – appears more reactive than proactive. The Processing Industry's large and cohesive APRP2 program is seen as a cut above anything the Fresh Industry could do or afford, and it is presumed that benefits coming out of that program will rub off on the Fresh Industry anyway.



The *raison d'être* of levy-funded R&D is 'practical benefits to the farmer'. One matter on which there is wide industry agreement is that valuable research results have not been effectively 'got out into the paddock'. It is hard to quantify how much has gone to waste in this way, although knowledgeable people suggest the loss is significant. There are divergent views on whether such older research still has practical relevance. But there is certainly agreement that, going forward, practical research needs to be translated into practical benefits.

Our consultations have provided useful insights into the process of 'getting research into the paddock', and it is important to understand this process. For example, practical benefits from potato R&D cannot be expected to come on a platter, and a cargo cult mentality is not helpful. Some people say that 'getting research to the paddock relies on a researcher being a champion'; some that 'growers who have given samples to researchers need to hound them for results'; some that 'more active participation by growers in the research process will lead to better results'; and some that 'growers need to take some responsibility for applying research results'. The translation of research findings into more productive farming is a fraught and complex process. Fraught if only because there is no guarantee that extraneous factors will not intervene

and bring damage or disaster. Recognised steps in the process include communication, technology transfer, extension. Farmers need to be satisfied that researchers know what they are doing, and that field trials have been sufficient. Information must not only be 'put out there', it must also be understood. Users need to know what new ways will do for them, and the limits of what is being offered. Technology – eg "Apps" – needs to be, or become, familiar to users.

None of this detracts from the responsibility of researchers to help growers, for researchers to be aware of the importance of communication strategies, and for researchers to endeavour to communicate R&D in a lucid and intelligible manner. Researchers today know that they need to have an eye to practicalities, and the good ones welcome this.⁴

But while research needs to yield practical benefits, the question of how to secure the information and get it to the farmer may be something else. We are told that sometimes the line runs from researcher to chemical company to processors to growers.

What comes out of this account of getting research into the paddock is that there needs to be a renewed emphasis on ensuring that 'benefits to farmers' actually accrue. 'Benefits to farmers' is the universal litmus test. Considerable effort and understanding will need to go into getting the fullest benefit out of current research projects as they wind up and provide their findings. In decisions about future research, it will be important to ensure that "good prospects of usable practical outcomes" is a criterion in selecting projects and researchers, as well as having procedures to ensure that practical outcomes are taken to the paddock when they actually arrive. The newly created Potato Industry Extension Program will need to play a pivotal role in getting good outcomes in both these areas. The Potato Industry Extension Program will help raise awareness of R&D, and help communicate it to growers and processors in a lucid and intelligible manner, with a particular emphasis on highlighting the productivity benefits of R&D, and providing information so it can be used on a practical level in either the short or long term.

The larger point, of course, is that the responsibility for getting practical benefits to growers is shared. For example, as noted earlier, researchers also have responsibilities in regard to helping growers in a practical and immediate way. In the modern world of team approaches, all those who are involved in industry R&D must work together to secure practical benefits to growers. "Benefits to Growers" is the real litmus test in relation to these issues – and underlying this is the ultimate litmus test of making the industry more competitive.

In addition to "science research in Australia", international contacts and experience emerge as a vital form of R&D for the Fresh Industry. As one industry leader put it, "There is probably no better use of the levy than ensuring progressive growers and opinion-leaders and the emerging younger growers be given the opportunity to participate in overseas grower tours", international liaison allows the Australian industry to compare and contrast our own policies and practices with those of international counterparts. It enables Australian industry members to 'see what it takes' to be 'up there' in world terms. It provides a measuring stick or a gauge whereby we can remain up-to-date with the latest R&D developments and technological innovations. Through overseas opportunities, international R&D is more easily disseminated to Australia for practical implementation. The fact that 45 growers registered interest in an upcoming tour, and that the allocation was increased from the usual 10 to 15, shows the strong support for these activities. Similarly, participation in periodic international meetings such as the World Potato Congress and the International Potato Group by key industry advisors is beneficial for the entire industry when the outcomes are shared with all growers through industry publications and other means. There is also benefit in researchers being able to work with their international counterparts (as was seen in collaborative work undertaken between Australia and New Zealand on Zebra chip). Such opportunities allow the Australian potato industry to broaden and enhance its R&D activities.

It is of course important to be aware of the steady contribution of agronomists - whether they be independent, employed by growers or processors, or tied to rural service providers - in the process of translating R&D to growers.

In summary, as this strategy plan comes into operation, it will be an industry imperative to identify and adopt R&D that will produce maximum benefits in the next five years, making the best use of the available funds.

Production, Demand and Costs

The following table sets out the best available figures for Australian fresh potato production from 2004 to 2011, and puts these production figures into perspective by setting them against Australia's population for each of the years.

Year	Australian Fresh Potato Production* (Tonnes)	Australian Population** (Rounded to the nearest 100,000)
2004	607,966	20.1m.
2005	631,330	20.3m.
2006	520,890	20.6m.
2007	431,080	21.0m.
2008	483,714	21.4m.
2009	571,478	21.9m.
2010	522,534	22.3m.
2011	513,774	22.6m.

* Inferred from Levy Payments, figures provided by HAL. Fresh potato production, including seed, was settling at around 40% of Australia's total production in the most recent of these years. In 2008-2009, fresh production was 44.7% of the total, in 2009-2010 it was 41.4%, and in 2010-2011 it was 40.8%.

** Figures from ABS Australian Demographic Statistics 3101.0

In summary, over this seven year period, Australia's fresh potato production fell by 15.5% (94,000 tonnes), while the population grew by 12.4% (2,500,000 people). Viewed from another angle, if fresh potato production had kept pace with population growth over these years, fresh potato production would have been approximately one third (170,000 tonnes) more than it actually was in 2011, i.e. 683,354 tonnes instead of 513,774 tonnes.

Despite the facts of good years and bad years, and upward as well as downward yearly variations, there appears in these figures to be an unmistakeable and significant downward trend in production. The budgeted 4.6% drop in 2011-2012 levy payments referred to above (p. 15) reflects a projected continuing drop in actual production - to 490,000 tonnes - for the current year. Production

from July to December 2011 was 310,784 tonnes: this was 2.7% above budget, but 7.6% below the corresponding six month period in 2010.

The figures above are based on production equalling tonnages of fresh potatoes on which the levy is paid. These figures therefore do not include potatoes which are grown and sold outside the levy system – e.g. by growers producing less than 100 tonnes – or potatoes which were grown and could not be sold. During our consultations in late 2011, we were told that a number of growers, in both South Australia and Queensland, were unable to sell their potato crop at that time and were therefore ploughing it back. We do not have figures on the extent of this glut. Its very existence, however, indicates that there is no unmet demand in Australia for fresh potatoes resulting from the declining production described above. It seems clear that falling production of fresh potatoes is in fact following falling demand.

Our estimates of per capita *fresh* potato consumption in Australia are: 23.9kg in 2008-2009, 21.2kg in 2009-2010, and 20.6kg in 2010-2011⁵. Some 8% of fresh potato production is for seed.

It is instructive to compare the Australian trend of declining demand with the fact that global production has doubled in the last 20 years, and the expectation that potato consumption in developing countries will continue to increase strongly.

The decline in demand that the Fresh Potato Industry is looking at has to be of great concern to the industry – and to this strategic plan. The reasons for declining fresh potato consumption in Australia are widely regarded as both known and obvious. But even a cursory consideration raises questions about the real reasons. For example, one reason often given is that people think potatoes are unhealthy: but if that is so, why is the Processing Industry gaining market share and not itself declining? Another reason often given is that Australia's changing demographic means that people are more exposed to rice and pasta: but equally, are not those who traditionally eat rice and pasta more exposed to potatoes? Another reason is that potatoes are not on young people's radar: but if that is so, why is that so? Other reasons often cited are that fresh potatoes are hard to cook, that

processed potatoes are easier or nicer, that the health benefits of fresh potatoes are not known in the market place. In the absence of a serious and recent study or analysis of the evidence on why the market for fresh potatoes in Australia is declining, it is unconvincing to assume that the reasons for the decline in Australia's fresh potato market are fully understood, with all contributing factors brought to account. These matters are considered more in the next sub-section in the discussion of the market.

In considering production and demand for fresh potatoes in Australia, it is important also to be aware of costs, partly because the fact that there are no imports at the present time does not necessarily mean there will never be any imports, and partly because high production costs militate against any prospects of Australian exports⁶. A lack of competitiveness – closely associated with high costs - is currently a major problem for Australian Processing Industry. The Fresh Industry cannot turn a blind eye to various possible flow-on effects, such as lower prices for certain processed lines further undermining demand for fresh potatoes.

In the picture that follows, specifics should be treated with caution, and more convincing evidence and detail of the suggested trends is greatly to be desired. That said, we understand that Australia has become uncompetitive as a potato producer over the last eight years or so – if increased imports are any guide, this timeframe looks right. Anecdotal evidence such as the following provides an apparently compelling picture of a variety of factors in the potato growing part of the industry which impact adversely on competitiveness⁷. Subject to the qualifications above, relevant factors include

- Australian potato production costs per tonne being high in world terms;
- Australia being considerably off the pace in competitiveness internationally;
- Australian potato production costs per hectare being high compared with some competing producers;
- Components of relatively high Australian costs including not only labour, but also land, seed, fertiliser, water, interest, overheads, transport⁸; and
- Since at least 2009, the largest exporter of

processed potato product to Australia had been New Zealand until the last few months of 2011, when the United States, Netherlands, Belgium, - and Canada in one month – all sent significant exports.

The picture of falling production and demand, together with high costs and a lack of international competitiveness, is not a pretty one. The discussion of competition and product development in the next sub-section brings two further dimensions into the picture. All this material provides the basis for the wide ranging analysis of the market and market considerations – both current and potential - which brings the next sub-section to a conclusion, and leads into the final sub-section dealing with the structure and organisation of the industry.

Competition, Product Development and the Market

Product development in recent decades has profoundly altered the Fresh Potato Industry. It has also – in conjunction with changes in the retail industry – transformed competition within the industry. In the light of these and other changes, the market for the industry – both current and future – necessarily comes under the spotlight as well.

Four product developments are particularly noteworthy.

- The development of washing and sizing has impacted the ‘dirty’ image of potatoes, and altered how users handle and prepare them for use. Growers need also to be washers and packers.
- Year round supply has eliminated the image of ‘old potatoes’. Growers need also to have storage.
- The development, legal standing, importation and distribution of new or different varieties have impacted on product differentiation, market development, competition, consumer choice, and selectivity in preference, for a

product that was formerly neither more nor less than a ‘spud’ – a kind of unvarying staple.

- The development of brands, which can potentially be attached to more than one variety, introduces a further basis of differentiation.

These developments are linked with a range of transforming changes in the Fresh Potato Industry. And of course, change keeps happening.

Because of these and other changes, fresh potato growers need to be operating on a considerable scale in order to be – or stay - in the game described above. Without scale, the costs of keeping up – as well as getting into the game – are killing. As for how much is required, an annual planting of 120-200 hectares has been suggested to us as a minimum. To give some perspective to what this scale of operation increasingly means:

- at \$15,000 per hectare, it will cost \$3,000,000 to grow a 200 hectare crop;
- 1,000 hectares needs to be available in order to grow a 200 hectare crop in ground which can be sown to potatoes only every 5 years;
- massive plant and equipment is required to grow and deal with a 10,000 tonne crop (assuming 50 tonnes per hectare); and
- the ability to sell 10,000 tonnes of potatoes at a price that yields a satisfactory return on a \$3,000,000 outlay.

We have assumed a 200 hectare planting on the basis that this is likely to be the minimum in a few years if it is not already.



The introduction of Plant Variety Rights (PVR) has made, and will continue to make, a great impact on product development in the Fresh Potato Industry. PVR was introduced, originally in the 1980s, to allow those who develop new plant varieties to obtain some reward for their work – like (but not the same as) patents for inventors, and

royalties for writers of books. Development of new plant varieties of course goes back centuries, and research directed at developing new potato varieties has been going on in Australia for more than 50 years. Until PVR was introduced, varieties of potatoes – Sebagos and Russet Burbanks – were ‘open’ in the sense that anyone could grow them, and label them as such if they wished to do so.

A consequence of the introduction of PVR has been that potato growers, or merchants, or retailers who own the PVR for a particular potato variety can retain for themselves exclusive rights to produce, and/or license, and/or sell particular potato varieties. A number of consequences follow from this.

- A retailer who has the PVR to a variety may make contractual arrangements with one or more growers to grow and supply this variety, and may not deal with other growers, and may also include conditions (e.g. contributing to the costs of promoting the variety) in the grower contracts.
- A grower who has the PVR to a variety may choose to supply only one, or a limited number of retailers.
- The incentive for growers, retailers or merchants to promote potatoes generically is likely to give way to the incentive to promote their own varieties.

Some industry people are of the view that there are limited incentives for product development in the Fresh Potato Industry. The basis of this view is that there is no incentive to keep a new variety ‘open’, combined with the fact that it costs ‘a truckload of money’ to make a ‘closed’ new variety popular with consumers. On the other side, there are industry people who say that there are tremendous incentives for product development in the Fresh Potato Industry. The basis of this view is that if you can develop a really good new variety, you can keep it ‘closed’, and you only have to make it popular with consumers in order to have ‘a licence to print money’.

Industry players have differing ‘takes’ on these developments. Some say the Fresh Potato Industry is being strangled by retailers buying direct from growers and tying things up with PVR. Some say

small growers are being forced out. Some growers say they have no complaints about arrangements with supermarkets. Some say consumers get lower prices, with greater efficiency through a *de facto* vertical integration. Some say that big producers have the power to drive demand for potatoes. Some say that more outlets are required. Some say competition is disappearing. Some say that there is an emerging oligopoly in the Fresh Potato Industry as well as in retail. Some say that PVR does not stimulate competition and innovation, but rather the reverse.

This brings us to the question of the current situation of Australia’s Fresh Potato Industry in relation to the market and marketing. It is well to commence this analysis by drawing attention to some basic realities.

- First, as explained earlier, the Australian market for fresh potatoes is shrinking. So far as we are aware, there is virtually no solid evidence about the reasons for the decline, or about its main features and dimensions.
- There are divergent views about whether this decline can be reversed or arrested, and so far as we are aware, no solid evidence either way.⁹ As noted earlier, we are not aware of any Australia-wide generic market research relating to the fresh potato market.
- The 2008 Year Book Australia feature article on potatoes suggests that the probable causes for the decline in potato consumption are ‘lifestyle changes, take-up of well marketed substitute products and dietary factors’.
- The standing of potatoes relative to other vegetables in Australia appears to have changed profoundly in the last 40-50 years. Rice and pasta have made inroads. Potatoes remain Australia’s largest vegetable crop. But even fresh potatoes appear not to share the healthy image of vegetables.
- The 2008 Year Book Australia referred to above states that the average potato, if eaten with the skin, provides a similar amount of potassium to a banana, and more iron and Vitamin C than half a cup of spinach.

Turning to the matter of the market situation and marketing from the perspective of a grower, the following factors are salient. The dominant reality is the encroachment of a practice generally known

as 'closed loop marketing', which has a number of elements and takes a number of forms.

- We understand that established, operable and sometimes exclusive linkages with a strong outlet or retailer are a precondition of being profitable – or even surviving – in the Fresh Potato Industry. The strength of supermarkets and other contract arrangements militate against profitability in any 'open' market that might exist or be found. Some small growers may be able to find niche markets, but that is definitely not the general rule.
- Private label or 'home brand' products – even with fresh potatoes – are increasingly allowing supermarkets to control pricing and marketing. This pushes growers and processors into having to take what is offered, and erodes their control over the prices they can charge.
- "How to deal with supermarkets and other big buyers" is an outstanding and ongoing issue for growers.
- Growers need access to (i.e. be able to grow) a marketable variety or brand of potato as a prerequisite of being able to sell their product successfully. Buyers are not looking for 'any old potatoes', but old and unwanted varieties may be all that is available to an individual small grower.
- The reality is that Plant Variety Rights (PVR) and Plant Breeding Rights (PBR), which were originally intended to give some margin to those who develop new varieties, are enabling retailers to restrict or deny general access to a number of new and/or desirable potato varieties.
- Whether competition is disappearing or simply changing is clearly an issue whose dimensions are not easy to understand, and which appears to be not well understood within the industry.

That many growers, especially the smaller ones, are deeply concerned about issues of market access is clear. There is a widespread view that something needs to be done, but there are no easy answers as to what it should be. That fresh potato growers have to take on the marketing of their product as part of their business seems clear. That ideas like 'farmers markets' are unlikely to provide long-term solutions seems to be accepted. That the revitalisation of wholesale markets on a major scale in Australia is not likely to occur seems to be taken for granted. That industry levels of

education and training do not equip many industry players to find their way through the issues is a matter that needs to be looked at very seriously.

Turning to the issue of the fresh potato market from the perspective of industry strategy, the following views and factors are salient. They are not in order, and are not arranged to lead in any particular direction.

- We understand that while the Fresh Potato Industry accepts that declining production and demand are current realities, its members basically do not accept that continuing decline is unavoidable, or that a turnaround is impossible. They want to do something about the situation, and put up a fight.
- We understand that growers believe that continuing slippage in production and demand is antithetical to the interests of both consumers and the industry.
- We understand that some in the industry recognise that if the current slippage in production and demand continues unchecked, a possible outcome is that Australia's Fresh Potato Industry could eventually be knocked out altogether if cheap imports once gain a foothold.
- Some growers see development of export markets as the real light at the end of the tunnel. There are of course already some exports of seed potatoes. Some believers are looking for premium high-end exports to China and other parts of the developing world.
- Our view is that the reasons for the decline in production and demand are not adequately researched or understood. Our perception is that many fresh potato growers are waiting to be convinced that market research could provide productive results about their market and their product. Market research is not currently on the agenda of these growers. One industry player noted that 'market research keeps telling us the same thing' – which may suggests that it is time for fresh research that asks different questions. On the other hand, a number of producers see value in nation-wide market research.
- No Marketing Levy is in place for the Fresh Potato Industry, and there is no proposal for one. One grower said he would 'love a promotion levy for a fightback, but knows he

is dreaming'. The marketable differentiation between potato varieties makes unthinkable the prospect of getting agreement to a marketing levy from a group of individualistic potato farmers who would rather promote their own products. The idea of a marketing levy was investigated in a study that was completed by AUSVEG in 2009. The peak industry body is not convinced, at this stage at least, that a marketing levy would necessarily deliver the result of improved sales when undertaken on a generic basis.

- A number of producers see potential value in generic marketing campaigns, which could be underpinned by nation-wide market research. Some of these players believe that some major players would be willing to work cohesively in generic – possibly state by state - promotion campaigns. We have been told that funds are available in one state for a generic fresh potato marketing campaign for that state.
- The industry knows that market development is an imperative, but ideas on what to do or how to do it are thin on the ground.
- There is a perception that product innovation has to be the best hope for resurgence in the Fresh Potato Industry. Much has been done with different varieties, and with grading sizes. We understand there are some efforts being made with new colours for potatoes. We have not heard of new sizes for potatoes, or quicker cooking potatoes, or attractive potato skins for eating, but no doubt such approaches have been or could be looked into.
- It seems clear that if the industry is to do something to address the twin issues of its market/demand shrinkage and its market/ demand potential, then it needs to start with a focused, up-to-date, comprehensive, outcome-oriented understanding of its market, including consideration of its market potential. A market analysis along these lines would need to take account of competition and product development in the Fresh Potato Industry, and much else. It would be good to find out the impact of both generic and other marketing. No doubt it would begin with Australia, but there is no reason to confine it to the potential market in Australia.
- While R&D on pests and diseases is vital, our view would be that in the situation of decline that the Fresh Potato Industry is experiencing, saving the market - and doing the best by it -

has to be a priority.

- Turning to the matter of market access for growers, it is an important fact that many in the industry would strongly favour finding ways to make sure that Australia's own markets and outlets for fresh potatoes stay open – or finding ways to open them if access is already unduly limited.

Reviewing the foregoing material, it will clearly be quite a challenge to make the future safe for fresh potatoes. The industry will need to be in good shape to be up to the task. This leads to the final sub-section of this situational analysis.

Industry Structure and Organisation

Fresh Potato Industry members are conscious of profound changes in their industry. But the idea of a serious national industry strategy seems not – at least currently – to be on their radar. Our impression is that the drivers of change are viewed primarily in the context of their states, and that R&D is not of great interest. It is hoped that this plan will help foster a strong industry perspective. Action to contain or reverse industry decline as discussed in the previous sub-section will need to come from the industry. AUSVEG, as the peak industry body, will need to be strong, clear-sighted and potent.

Australia's Fresh Potato Industry is historic, fragmented, multi-layered and diffuse. It is important to be aware of some of the factors that are present and at work.

- There are hundreds of growers: fifth generation growers, and new growers; growers who produce a few hundred tonnes, and growers who produce tens of thousands of tonnes.
 - There are growers dropping out of the industry or falling by the wayside, and ageing is a reality, but young leaders are emerging as well.
 - There are true-believers - growers who see themselves as producing one of humanity's great staple foods - and growers who see their job as little more than grinding work.

- A number of growers, especially small and medium-sized growers, are extremely worried about the industry's future: as one put it, the future is not a nice picture.
- Some growers see farming as a way of life and find it difficult to adopt a business perspective – other look only at the dollars.
- There are deep-seated issues with inadequate training, but many growers are smart and switched on.
- As an industry, 'fresh potatoes' is entering a period when it will suffer from declining expertise. There are fewer potato experts in government departments. Shortages of agronomists – especially those with potato expertise – are well-known. One big grower indicated it is virtually impossible to recruit suitable or trained employees at any level above that of tractor drivers.
- A further factor that impacts on fresh potato growers more than processing growers, especially those growing without contracts, is their constant exposure to the market. This makes their job bigger, more demanding, and more risky than that of the processing potato grower. It is not clear how many fresh potato growers are equipped or have the capacity to handle this demand in their rapidly changing world. It has been rightly said that vegetable growers constantly face the market. Added to this burden is the constant fear of gluts, which not only depress prices but make product unsaleable, a tragic situation which is real for numbers of growers at the time of writing.
- Some growers produce processing as well as fresh potatoes.
- Change is sweeping through the industry, but we are told the industry does not like change.
- It seems to be widely accepted that apart from the issue of declining production and demand, the industry is going to have to find ways to improve its efficiency in the next few years.
- The Fresh Potato Industry is loose knit and not well-funded - spread across all states, and spread within individual states.
 - It does not have the structure - or the tensions - of the Processing Industry. Compared with the Processing Industry,
- there is little to hold it together – little support, and little discipline apart from the disciplines of the market. For example, while fresh potato growers share a fear about zebra chip, our impression has been that even this threat is perceived as being at a distance. Our impression is that something would need to happen for the industry to be able to cope with issues that may need to be managed: but at the same time the industry is made up of people who are tough, capable, and used to being challenged.
- It is a two speed industry, with some successful growers too busy to talk about strategy, and other growers too focused on keeping their heads above water to think about it.
- A lot of work is going into industry communication and development. This work points to progress and an increasing level of commitment, although it may be necessary to move up a gear or two – or three - to get to grips with the issues the industry needs to face.
 - *Potatoes Australia* is an important voice for the industry. It is widely distributed and read; it is informative and useful; it communicates industry messages.
 - AUSVEG is powerful voice and resource for the industry. It is attracting greatly increasing media coverage. It is recognised as a potent vegetable industry advocate, a strong and leading voice for primary industry across Australia. It is influential in the political arena and with governments.
 - The Potato Industry Extension Program is giving new impetus in enabling growers to access technology and practical research benefits.
 - Young leaders are being fostered, and industry bodies are on the lookout for ways to work co-operatively and advantageously for their members.
- There are many potato industry bodies across Australia – state and regional as well as national bodies; specialist as well as general industry organisations; government departments, bodies and authorities.
 - The Fresh Potato Industry Industry

- Advisory Committee (IAC), under Horticulture Australia Limited (HAL), is the industry advisory committee charged with making recommendations on R&D expenditure on behalf of the industry. AUSVEG, which represents the growers, sits on the IAC. AUSVEG is an active industry spokesperson and provides the IAC Secretariat.
- Grower group activity is a reality, an important resource and potential.

In considering future imperatives, particularly in connection with the threats and difficulties that are facing the industry, it is essential to have a view to these industry features and dynamics. They come sharply into focus in considering how to pursue the industry's objectives and how to implement the strategies proposed in this plan.

Concluding comment

The foregoing situational analysis is designed to be an encompassing snapshot of where Australia's Fresh Potato Industry is, looking at current reality from a strategic point of view. The next step in this plan is to develop appropriate objectives for the industry. These objectives are the subject of the next section of this plan. Once these objectives are determined, we will know where Australia's Fresh Potato Industry wants to be. We will then be in a position to devise strategies for getting from where we are to where we want to be.

3. Australian Government Rural R&D priorities are: Productivity and adding value; Supply chain and markets; National resource management; Climate change and climate variability; Biosecurity; Innovation skills; Technology.
 4. A Cambridge agricultural researcher recently noted that 'it's exciting to see the immediate effects and impacts of the science'.
 5. Comparable estimates of per capita consumption of processed potatoes in Australia are complicated by the need to take account (i) that it takes around two tonnes of actual potatoes to produce one tonne of "Processed potato product" (such as chips), and (ii) that imports are measured in tonnes of "Processed Potato Product". Keeping these considerations in mind,
 - In 2008-09, Australian processing potato production was 706,011 tonnes. This translates into 16.1kg per capita consumption of Australian processed potato product. Imports in that year were 88,000 tonnes, which translates into 4.0kg consumption per capita of imported processed potato product.
 - In 2009-10, Australian processing potato production was 738,595 tonnes. This translates into 16.5kg per capita consumption of Australian processed potato product. Imports in that year were 80,000 tonnes, which translates into 3.6kg consumption per capita of imported processed potato product.
 - In 2010-11, Australian processing potato production was 744,842 tonnes. This translates into 16.5kg per capita consumption of Australian processed potato product. Imports in that year were 83,000 tonnes, which translates into 3.7kg consumption per capita of imported processed potato product.
 - In July-December 2011, Australian processing potato production, at 375,557 tonnes for the six months, was broadly in line with the totals for the previous three years. Assuming a similar population as for 2010-11, this translates into the same consumption rate of Australian processed potato product as for 2010-11. But imports for this six month period, at some 72,000 tonnes, had almost doubled on an annualised basis.
- Thus per capita consumption of processed potatoes in Australia through the later years of the last decade was basically static. But the increase of imports, not only in the second half of calendar year 2011, but also since the early years of the last decade, is ominous.
6. There is some exporting of Australian potatoes, including seed potatoes.
 7. It is of course relevant to keep in mind that Australia suffered major droughts and floods through many of the years since 2003.
 8. We understand that red tape, while bad and costly, is not as bad in Australia as in Europe.
 9. In the course of consultations, we have heard it suggested that there is some evidence that a generic marketing campaign in Western Australia was successful in arresting but not reversing the decline. A relevant reference is available at <http://www.pmc.wa.gov.au/pdf/Organisational%20Outcomes.pdf>, where it is stated *inter alia* that "Market research undertaken each year provides valuable data with regard to purchase and consumption patterns of potatoes in comparison to rice and pasta. The research also provides information regarding the effectiveness of the marketing and promotional messages. Although sales only marginally increased on the previous twelve months, the marketing function has seen some significant changes in market share and consumption behaviour. While rice and pasta are the main substitutes of ware potatoes, potato continues to be the food eaten most often in Western Australia when comparing the three food types. In addition, for the first time in nine years, there was an increase in the proportion of shoppers who reported having eaten more potatoes over the last twelve months." This is from a report of the Western Australian Potato Marketing Corporation.

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1. Quoted from AUSVEG website page "The Levy System".
 2. E.g. we have been told, obviously realistically, that soil amendment programs have been hard, but 'you must keep trying'

Section 3. Objectives



Since demand for Australian fresh potatoes is declining at a significant rate without the industry having an informed understanding of the reasons for the decline or the possibility of arresting or reversing it, the overall objective for this 5-year plan is that the industry should, by 2017, have attained a comprehensive understanding of the nature and causes of the decline to 2012, and have developed and put in place measures to secure the future of the industry which focus on making the industry market-oriented and growth-oriented.

Four broad and interrelated objectives are proposed for the five year period from 2012-2017, in order to deliver on the industry Vision set out in the Introduction, namely: "To have a strong Australian Fresh Potato Industry that is profitable, effectively promoted, and forward-looking". These objectives also align with the character and approach set out for the Industry in

the Mission Statement in the Introduction, i.e.: "To be a well-trained, state-of-the-art, market-oriented and growth-oriented industry". These objectives also align, within the limits of the industry having no marketing levy, with HAL's standard objective areas, viz. increasing demand for the product, increasing production efficiency, and ensuring an effective operating environment. In turn, each of the four broad objectives is subdivided into a number of components, which are designed to align with the SMART idea that objectives should be specific, measurable, achievable, realistic, and time bound.

Objective One: The first 2017 objective is to bring about increased innovativeness. The four components of this objective are as follows.

- (i) Initiate, and engage the industry with, a creative scoping study of potential new and innovative fresh potato products and potatoes.
- (ii) Foster a more professional and innovative

business development approach in the industry through a targeted “short course” training program delivered to at least 150 growers.

- (iii) Seamlessly complete established R&D programs, decide form (e.g. program or individual project approach) and specific content of R&D for the 2012-2016 years, with possible inclusion of some promising projects for product innovation.
- (iv) Establish (in collaboration with the Processing Potato Industry) an accessible industry training program, initially to Certificate IV level, in collaboration with a quality dual-sector University or VET provider.

Objective Two: The second 2017 objective is to bring about increased usage of practical research findings across the industry. The five components of this objective are as follows.

- (i) Identify the top four ‘game-changing’ practical research outcomes from available research programs.
- (ii) Operationalise these outcomes into packages that growers can use without specialist knowledge.
- (iii) Communicate and advocate the packages to all growers, conduct forums on the packages for all growers, provide backup support on request for grower implementation of packages.
- (iv) Crystallise in an implementable format other practical research outcomes from industry R&D and other available research programs.
- (v) Build grower belief in the practical value and usability of the industry research program to the point where 85% of growers are prepared to implement the recommended measures.

Objective Three: The third 2017 objective is to bring about enhanced communication and well-founded understanding of the market for fresh potatoes. The five components of this objective are as follows.

- (i) Conduct benchmark market research, including comparative and international literature reviews, leading to a comprehensive industry understanding of factors – particularly factors susceptible to influence - involved in reduced consumption, non consumption, first-time consumption, and increased consumption

of fresh potatoes (including innovative/ new fresh potato products and potatoes) in Australia.

- (ii) Build and circulate (in collaboration with the Processing Potato Industry) a benchmark body of generic information about consumer/ community/ government attitudes, behaviours, etc., towards the industry and its products, including comparative international and industry information, by which the industry and individual growers can measure themselves and lift their game.
- (iii) Develop a grower-friendly online communication network with more than 200 growers.
- (iv) To have fresh potato growers well informed, including through case studies, about how to obtain, improve and increase market access for their produce.
- (v) Circulate to growers benchmarking information about potato growing, desirably in a case study style, and including inspiring examples.

Objective Four: The fourth 2017 objective is to bring about more effective advancement of the cause of the Australian Fresh Potato Industry. The four components of this objective are as follows.

- (i) To have the industry giving positive and united support to its agreed objectives and strategic direction.
- (ii) To have regular media stories about research and other matters that are positive for Australian fresh potatoes as distinct from fresh potatoes from other countries.
- (iii) To have the Australian potato industry recognised as a valuable, forceful and iconic farming and manufacturing player.
- (iv) To have an established information resource – such as a website or pamphlet – available to support the industry and industry advocacy, and to underpin the industry’s position.

We propose the following apportionment of the available¹ R&D levy funds between the four broad objectives: 36% for Objective One, summarised as increased innovation; 18% for Objective Two, summarised as increased usage of practical research findings; 41% for Objective Three, summarised as improved communication and enhanced market understanding and skills; 5% for

Objective Four, summarised as more effective advancement of the cause of the industry.

These calculations are based on relative cost estimates as follows. First, an apportionment is required because there would be insufficient funds to warrant development of a zero-based budget. The calculation boils down to estimating the relative cost of achieving the desired results for each of the four broad objectives, and for the purpose of this calculation we summarise these as the cost of (i) producing materials for possible growth and cost containment; (ii) making relevant findings and materials usable; (iii) persuading growers the findings, etc., are worth using and enabling essential market understanding; and (iv) persuading growers to use the materials and understandings. Since achievement in all four objectives needs to play a part in putting in place practical measures, based on understanding of key issues, to secure the industry's future and possible growth, and accepting the inappropriateness of looking for greater precision in calculating the respective allocations than the subject allows, the bases for our estimates are as follows: 36% for producing materials for possible growth and cost containment and 18% for making these materials usable, on the basis that 'you're more than half way there when you have the materials'²; 41% for persuading growers the findings, etc., are useful and enabling market understandings on the basis that the non-discretionary communications component currently requires 37% of levy payments and that the market understandings are additional; and 5% for persuading growers to use the materials and understandings on the basis that 'you're home and hosed when the grower knows they are worth using'.

The degree to which these proposed objectives are genuinely 'achievable' and 'realistic' depends in large measure on the resolve, the commitment, the energy, and the spirit of co-operation with which they are pursued by industry members, and driven by industry leaders and representatives. These considerations lead to the question of strategy, and the next section of this plan.

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1. The following allocation assumes that the required portion of the total funds will have been taken out to cover administrative and overhead type requirements.
 2. While noting that the cases are not the same, we are encouraged in recommending this allocation by the fact that a major medical institute functions, apparently pragmatically, with a broadly similar allocation, inasmuch as its allocation of funds for research is approximately double that for development of clinical applications.

Section 4.

Strategies



Strategy is described in the introduction as the “high-level ‘how-to’ guiding idea” for getting Australia’s Fresh Potato Industry from where it is in 2012 to where it wants to be in 2017. Our view is that strategy is the most challenging component of this plan. The challenge arises because on the one hand there is a significant gap between the industry’s serious current situation and its challenging objectives, and on the other hand the industry’s capabilities appear, as they stand, to be somewhat confined, restricted and limited, particularly in regard to being able to see a way forward.

Once it is put this way, the challenge in fact suggests the solution. The strategic solution is conceptually simple, even though it is not altogether clear how it can be brought to fruition. In essence, the strategy which we propose to get from 2012’s reality to 2017’s objectives is to empower the industry and give it the capacity

it will need if it is to achieve its objectives – and secure its future. We come to this determination:

- First, because it is unlikely that the objectives can be achieved by the industry in its current condition;
- Secondly, because the industry’s historic and iconic character is indicative of a capacity to get results when it has the necessary resources; and
- Thirdly, because there are no white knights or other assistance waiting in the wings.

In contending that the strategy is for the industry to be empowered, we are not suggesting some esoteric procedure, or that each grower’s pursuit of his or her own interests should take a back seat. What we are suggesting is that growers need some fresh and different information, that approaches need to be conveyed that will unlock some latent capabilities, that perspectives need to be provided that will alter mindsets,

that awareness needs to arise that will reshape preoccupations, that attitudes need to be inculcated that will refocus some priorities.

Essentially, we are suggesting that growers as a group need to be conscious that in the face of falling demand and inadequate market access, they have room to manoeuvre; that they can influence the future of their industry; that the best way to do this is to work together for common interests as well as working for their own interests; that they need to set new industry goals; that new ways, new approaches, new knowledge, new technology and new techniques may be required to achieve these goals; that they should not let sentiment get in the way of success; that those with a capacity to provide some leadership should be supported in stepping forward.

The journey that this plan proposes for the Fresh Potato Industry is one that the industry must itself take. The growers, working together, need to be supported by all the various specialist industry associations – and the growers and these associations will in turn need to support AUSVEG, which will surely need to play the key role in making happen the things that need to happen. There will be little room for error, and no room for division. All those involved are well aware that the potato industry is tough, and there is little doubt that this particular industry challenge will prove as tough as any of the challenges that growers routinely face.

In short, the “high-level ‘how-to’ guiding idea” to achieve the ambitious objectives set out in the previous section is for the industry to be empowered. We express it in the passive, not because the industry will not itself have to take responsibility for the empowering, but to emphasise that much of what will be required needs to come in fresh, and from outside current approaches and attitudes. It is also worth pointing out that the objectives themselves are user-friendly so far as ‘industry empowerment’ is concerned. For example, the communication network, the training program, widespread grower adoption of practical research findings, better understanding of the market and drivers of demand, will all be empowering in themselves.

on the action plan, which is the subject of the next and final section of this strategy plan.

The strategy obviously puts a good deal of weight

Section 5.

Action Plan



This brief Action Plan is designed to start Australia's Fresh Potato Industry on the challenging and varied journey that will be involved in giving itself a strong and secure future. The action plan is necessarily limited in scope. This is because a detailed 'To Do' list would rapidly become a straightjacket. Indeed, those charged with the initial responsibility for implementing the strategy may well find that specific action or outcome proposals require modification from the start. We see these five initial action steps as a package, and will themselves require further specification in due course.

1. The first thing to do is to bring to the industry something to work with. Until growers have something fresh – whether it is focus group reports that get them to see things differently, or a presentation that inspires them to think positively, or an achievement story that makes them want to do something – they will be

simply stuck at the crease.

2. The second thing is to infuse more energy into the industry. Without wishing to predetermine how this may be achieved, we note that hope, and awareness of a way forward, sometimes provide a surge of energy.
3. The third thing is to foster a willingness to innovate. This is not an easy task, and may need to come from something like a game-changing combination of experiences, or something like travel that takes people out of themselves.
4. The fourth thing is to get a standout practical research result out to the paddock. Growers need to start getting beneficial changes.
5. The fifth thing is to get recognition that the

future of the industry is substantially – even if not wholly – in the industry's own hands. That will provide a basis to engage with this SIP.

In the course of our consultations, people have been saying that this strategy needs to give the industry a direction that will take it to a viable future that is worth being part of. We conclude with this observation, which comes from within the industry, because it goes to the heart of the matter by saying that the industry is in sufficiently good shape for people to be willing to line up alongside the right strategy and run with it. We thank everyone who has supported the production of this strategy plan, confirm our willingness to assist in its implementation, and wish the industry every success in making the plan its own, in engaging with it, and in achieving as the outcome a strong and secure future.





Horticulture Australia

