Organic Horticulture: Expanded field trials and supply chain data tracking

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Project Number: HG12033

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Know-how for Horticulture™ **HAL Project No.: HG 12033 (January 2014)**

Project Title:

Organic Horticulture: Expanded Field Trials and Supply Chain Data Tracking

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Statement about the purpose of the report:

The project aims to expand the number of growers able to gain access to the information and findings of the pilot project, while expanding to larger in-field trials, and greater direct in-field work with producers wishing to supply to this market sector.

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HAL; Dench McClean Carlson; Woolworths Supermarkets.

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Media Summary

The challenge remains for the organic horticulture sector to achieve greater supply consistency, quality and volumes for existing markets domestically.

The initial project “Trialling new production and marketing networks for the organic sector” (HG 10054, 2012) provided a key stepping stone for the industry to achieve a greater level of supply consistency for identified demand.

This expansion in field-trials and grower meetings has built upon this work to assist with producer capacity to enact plans to expand their own operations to meet this ongoing (and growing) gap in supply for in-demand organic fresh produce.

The project’s goal was to work with existing suppliers, and interested non-organic producers, to deliver horticulture supply chain improvements and expansion in the organic sector nationally.

The benefits and outcomes to further the development of the organic horticulture industry have included:

- Building on the findings of the HAL project HG 10054 (2012) “Trialling new production and marketing networks for the organic sector”;
- Leveraging outcomes from the HAL funded project “2012 Australian Organic Market Report”;
- An increased range of organic horticulture products available to the Australian consumer;
- Increased size in markets, in turn encouraging producers to continue to expand the market;
- An expansion in the technical knowledge at producer level as well as information exchange with new in-house Woolworths agronomists and buyers liaising directly with producer-suppliers.

More of these outcomes are critical for this industry over the coming years if it is to effectively supply into and meet the rising demand for certified organic product.

Woolworths supply chain gaps reports clearly highlight both opportunity for interested parties to produce and supply a specific number of organic produce lines into big retail, while also showing how over the past two years that consistency of supply of some produce lines (carrots and potatoes in particular) have driven sales higher, building confidence in retail buyers and consumers alike, in turn delivering greater certainty for the producer-suppliers of those produce lines.

The challenge now for this industry is to see similar producers step up to the challenge to fill the other clearly identified produce supply gaps. To this point in time this has not yet been achieved and requires further work in field yet, and investment at producer level, to close these supply gaps for good.

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1. Introduction and Project Objectives

1.1 Background to the Project

The organic horticulture market remains undersupplied, with known demand from retailers.

There remain significant challenges at the grower level, with lack of clear planning and market intelligence, through to a low level of awareness of the technical requirements of producing organic horticultural produce to specification.

There is an identified need to forge greater collaboration across and within the organic horticulture supply chain, with a need to bring existing expert growers together with new entrants, or those wishing to expand into new crop types.

The small and focused pilot research project (Organic Horticulture: Gaps and Windows, HG 10054) funded by HAL in 2011 with collaboration from Woolworths Ltd and Moraitis Pty Ltd, highlighted the beneficial outcomes from small scale field-trials where there was close collaboration between retailer, wholesaler and grower.

There is a critical need to apply the findings and achievements of the initial pilot project to deliver greater knowledge and skill into the organic supply chain at the grower level.

There is a need to expand the number of growers able to gain access to the information and findings of the pilot project, while expanding to larger in-field trials, and direct in-field work with producers (one on one work in-field) wishing to supply to this market sector - in order to meet the recognised demand in the market place.

The marketplace alone will not resolve this issue, as was noted in the prior report, without additional expertise and collaboration brought to bear within the industry throughout the supply chain.

This project has the support of Woolworths, as a contributor and partner in the original pilot project, recognising the importance and strategic nature of this work.

1.2 The process

The project included four phases:

Phase 1:

Consultation and workshops with existing collaborators from the pilot project (HG 10054) to assess ongoing success as well as challenges with production and supply, from grower through wholesaler to retail

Phase 2:

Expansion of grower collaborators in the supply chains supplying the major supermarkets (with a focus on Woolworths, given their commitment to this project), identifying growers wishing to expand supply, or move into this market driven production system, and working with them to bring awareness about supply chain needs and issues, as well as known production issues.

Phase 3:

In-field trials with this expanded base of growers, along with existing growers from the prior project to work to establish production and marketing plans oriented towards identified market demand across a broader range of produce lines (including vegetables and some fruits). This range is to be established following workshops and meetings between retailer, wholesaler/s and growers.

Phase 4:

Project review and data review with final report

2. PHASE 1 WORKSHOPS, REVIEW OF HG10054 AND PLANNING FORWARD

2.1 Consultation and workshops with existing collaborators from the pilot project (HG 10054)

Three meetings and four phone interviews were conducted with existing organic producers in the supply chain (Victorian and Queensland producers across vegetables (root vegetables, brassicas, stone and pip fruit) in June-August 2013).

Discussions revealed a marked shift in supply comparing 2011 and 2013, with some of the organic industry's leading producers noting an intent, or a strong desire, to supply supermarkets directly from 2013 onwards – at least with a plan to diversify part of their operations, or expand production to meet specified demands for supply into Big retail.

Some producers remain very concerned about being known publicly to supply directly (or to be having an intent to supply directly) due to fear of loss of their other traditional wholesaler markets. This remains as a significant impediment to some to confidently grow supply of their products, while knowing they can continue to have diversified market options.

A larger barrier by some producers remains being wary that their "risk premium" for producing organic on some lines is well above the price premium consumers have suggested that they are willing to pay in the 2010 and 2012 Australian Organic Market Reports. Some organic lines are simply on average well above (i.e. cost far more to produce, when averaged out over a number of seasons) this "premium" per tonne – which creates a vicious circle of some producers not willing to expand significantly. This includes some of the largest producers currently involved in the organic industry.

A major shift since the pilot report was conducted has been in a desire by the partner supermarket (Woolworths) to, where feasible and where volumes dictate, go directly to the grower for supply. The upside of this may be potential higher prices for producers (with elimination of the middleman) however it is also likely that in the short term there will be a lag delay in supply as relationships are established, and a level of "proof" in the demand and "trust" between supplier and retailer.

There is no doubt that some wholesalers are adding considerable value via their roles as arbiters, production planners, and as a means of producers diversifying their own risks in the face of patchy demand for organic horticultural products in Australia (and for export). Nonetheless there have also been cases of higher prices at retail level (in turn dampening consumer demand) arguably based on additional costs in the supply chain by handlers or wholesalers where this value has been harder to justify. This has been particularly the case in some of the "commodity" crops or where volumes have grown significantly, in turn changing the market dynamics – and enabling direct supply to be more realistic – and beneficial – for the producers in question.

A second major shift in the supply chains in comparison to 2011 has been the commitment by Woolworths to resource in-field agronomists. This creates a significant opportunity for future information flow, driven by the market, in what to date has been a specialised domain of the few. Production specific issues (sector, region and crop specific) will remain challenging to have a "recipe" for organic production, hence there will be a need to link producers with other like producers to ensure appropriate and practical information and technical know-how is passed on through time in what is a very specialised production system supply chain.

2.2 Review of HG 10054 Report

The following key points which emerged from the HG 10054 Report and which formed input into this second project are detailed below:

- It is very clear from this research that two contrasting and at times conflicting factors remain affecting the consistent supply of organic produce into the Australian marketplace. On the one hand there are evident supply gaps, as confirmed by the Woolworths supply

windows table, and higher priced produce, which frustrate and turn consumers away. On the other hand there are producers claiming they could (and sometimes do) produce more during these windows but they require a confidence that produce will be taken consistently and at a market price that balances the perceived and real risks they take on in both expanding and changing production systems (either crop types or conversion to organic production) to suit the market demand.

- There is now some light at the end of this tunnel in the relationships forming whereby stronger collaboration and planning with producers, in concert with confidence being delivered via means of rising volumes of demand as promised along with solid returns to offset the risks of expansion and production changes, is seeing returns via a growing supply of availability of some produce lines.
- Four key outcomes from this project were the following:
  - ~ Measurable improvement in demand for producers
  - ~ Measurable expansion of the industry
  - ~ Increased collaboration between producers and retailers
  - ~ Measurable increase in access to organic produce
- While there is a correct point made by retailers that the fundamental barrier to further organic purchase by consumers is the high price of organic products, at the other end of the spectrum without appropriate and desirable pricing at the farm gate level, reflective of production costs and risks, producers will simply not supply.

  It is essential in this context that this is recognised by the supply chain partners and commitment made by wholesalers and retailers alike to take cuts in their own margins, certainly making their margins based on “pennies not percentages”, i.e. based on a set dollar value per unit, instead of on the more conventional model of percentage of overall product cost.
- Ultimately the confidence that comes from year on year relationship and trust building is essential to see a growth in consistency of supply. In the absence of actual formal contracts for production (which while existent in the industry are extremely rare and there appears to be a reticence by marketers to enter into such arrangements) this (confidence and trust) can only be achieved by closer collaboration and clear communication in the form of regular meetings, workshops/forums and benchmarking between producers and in collaboration with their marketers/wholesalers.
- While regularly brought up by producers as a possibility, it would appear that the practicalities associated with running formal networks or co-operatives of growers are just too challenging to achieve anything in the short to medium term. In the absence of this the next best thing is closer collaboration with their marketers and more sector specific or product specific producer gatherings where sharing of information and ideas, benchmarking of organic production practices, and production and marketing planning collaboration is achieved.
- Similar to calls from some producers regularly to set up producer co-operatives is the call or suggestion to set up new producer or network specific marketing labels that identifies the producers supplying the produce. While not ruling out this option, it remains a significant challenge for the producers to generate greater collaboration along the supply chain.
- More work and research could clearly be done in this domain to further progress the expressed interests of some producer and marketing groups, both for the domestic as well as export markets for organic.
- It has been made abundantly clear from this project and the workshops and increasingly improving relationships between producers, wholesalers and retailers, that more of the same is critical for this industry over the coming years if it is to effectively supply to meet the rising demand for organic produce.

- While the debate is arguably over about whether or not organic is a faddish niche that would otherwise fade away (given its 3 decades of existence in Australia) what is at stake for this industry is its sustainable size and longer term future as a 2% to 5% niche player in the Australian marketplace. Without the industry sustainably and consistently supplying produce in demand at these niches levels it may well struggle to otherwise move beyond the 1% of retail value in the years ahead, which implies some growth (as all retail rises) but not the levels of growth otherwise projected and possible with consistent supply available.
- This is a challenge that some producers and wholesalers are rising to, as is evidenced in this report. The industry certainly requires more of this to ensure lasting change for the longer term while delivering profitable options for Victoria's horticultural producers in the years ahead.

2.3 Australian Organic Market Analysis

The following section on the organic market in Australia is drawn from the **HAL funded Australian Organic Market Report 2012.**

2.3.1 Executive Summary

Industry value and growth

The organic market has continued with sustained growth through 2010–2012, even in the face of margin declines (and therefore increased volume growth is not reflected in overall value growth).

The total value of the organic industry in Australia is an estimated $1.276bn in 2012. The average growth projection for the coming years is 10–15%, reflecting the two years of per annum growth from 2010.

Total farm-gate value of certified organic products in Australia in 2011 was estimated to be $300,637,412 and total farm turnover $432,211,807.

The farm-gate value estimate is conservative and is based on ABS data, which has captured this figure from 1520 agricultural business entities reporting certified organic status in 2011. Given the industry is larger in number of known certified primary producer operations (by an additional 40%), and taking into consideration the informal market, the overall value of the organic farm-gate market could be closer in value to $0.4bn.

Internationally there has been growth year on year of organics. Growth has ranged from 11% to just over 2% between 2007 and 2010 (Euromonitor 2011b). The total value of the organic marketplace internationally was estimated at US$59bn in 2010.

The Australian organic industry continues to command a relatively small percentage of total market value (sectoral range estimates of 0.8–1.2% and more with some sectors) while growing above growth rates for conventional produce. This is within a conventional food and beverage industry in Australia now worth an estimated $130.3bn (DAFF 2011a).

The value of imported organic products is estimated to be in excess of $220m, having risen as a consequence of supermarkets attempting to fill demand, while importers and consumers have also benefited from a strong Australian dollar. Imports include a rising trade in processed goods from the EU and the US for the retail trade, along with base ingredients including milled grains (and livestock feeds), essential oils and dairy powders, supplementing Australian manufacturers with insufficient local supply.

Exports have remained generally suppressed in comparison with figures from the early 2000s, with the exception of successful examples in meat and dairy. Exact figures for export are difficult to ascertain but remain as a smaller portion of Australia's industry value, at an estimated 10% of overall industry value ($126m). In the coming years, a falling Australian dollar and increased supply capacity offer opportunity for the industry to supply into international growth and solidly established markets of the developed world, as well as expatriate communities and middle class consumers in developing economies.

Organic sales are increasingly becoming mainstream. In 2012 92% of organic sales are through store-based retailing. Three out of four organic purchase experiences are now at major

supermarket chains, underscoring an ongoing 'mainstreaming' of organic products, even while independent retailers and other retail outlets continue to experience growth and in some instances very high growth.

As noted in prior *Australian Organic Market Report*s, the ability to develop domestic production to meet this demand continues to be a key challenge for future growth of the Australian organic industry, with some sectors (for example, processing for freezing and other value adding) noting inconsistent or unavailable supply of raw ingredients to deliver on known demands.

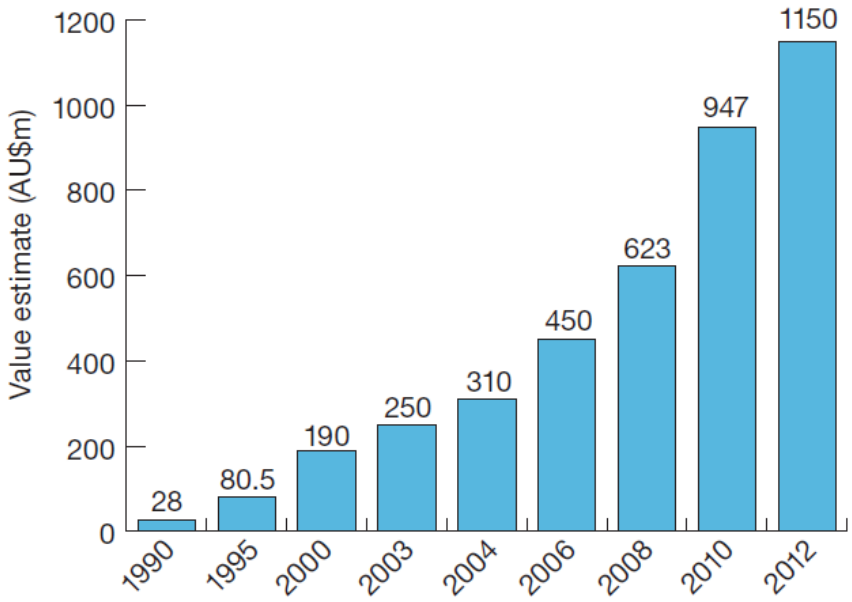


Figure 1 Retail value growth 1990–2012

Industry sectors

Estimated organic farm-gate value of organic production has grown 16% per annum since 2009 to $300,637,412 in 2011 (a 34.67% increase over two years) again in the context of increased lower pricing pressure, suggesting additional volume growth not reflective in these value growth figures.

The breaking of drought in Australia in 2010-11 has been of significant benefit to primary producers. It has also brought challenges of additional weeds (particularly in cereals) and diseases (grape production), which have reduced or decimated some harvests. In some instances it has seen some operators decertify.

The organic industry is continuing to mature and the average size of organic farms has increased, highlighting a trend towards professional farming on a larger scale (albeit still under conventional farm enterprise average size for most sectors). This also highlights the expansion of some long-term organic farming families who have purchased additional land and/or farm units in other states to cater for increased demand as the multiple retailers move more decisively into the organic market.

While mainstreaming and professionalising, the organic industry remains diverse in terms of operator types and sizes, with the continued success of farmers' markets and direct-marketed products. The number of smaller sized certified organic operations remains high. This is reflected in the disparity between ABS figures collected and other industry data, which suggests that over 50% of (certified organic) primary producer operators remain as smaller-scale production farms.

There is a large additional section of the organic industry that is uncertified with smaller-sized farms not needing formal certification to trade (a requirement for export and for the larger retailers in Australia). If statistics included this group, it would push the number of overall farmers who farm organically higher in terms of organic production. This group is not reflected in these Report figures due to reliance on counting and assessing independently certified organic operators. ABS data also constrains the industry analysis to agricultural businesses with an ABN and registered as a primary producer. While the ABS Agricultural Census is a mandatory requirement for Australian agricultural businesses, this does not translate to all operations being captured in this census.

Coordinating organic production and supply chains remains the biggest opportunity and challenge for some sectors; however there are excellent examples where this is now gaining traction and resulting in higher-value products such as snack-size and squeezy pack yoghurts and beef patties. Organic farm inputs – a sector not reported in terms of value and turnover in this Report – continues to grow in products and businesses. In 2012 187 businesses had formally registered organic farming inputs (fertilisers, Bio-pesticides and crop management inputs) and other approved processing and cleaning products.

2.3.2 Key Statistics

Australian organic farmers and farmland

In 2012 the total number of certified farming operators according to certification agency reporting is 2117. In contrast ABS statistics report 1520 organic agricultural businesses, or 1.13% of ABS-categorised agricultural businesses. This difference in calculations is assumed due to 'lifestyle' organic farms, direct marketed and farmers' market orientated systems that nonetheless maintain an organic certification and are more likely to supply local farmers' and gourmet markets.

In 2012 there are 765 value adders and marketers (post farm-gate) certified for organic business, with an additional 187 organic farm input and approved product companies

Even with some estimated 200 new farmer entrants to the industry in 2010-11, net numbers are down based on 2010 reported figures (due largely to natural attrition). Hence the two years since the 2010 Report have not seen the average longer-term trend of the past decade of 5% net growth. Growth in absolute numbers needs to be seen in the context of net growth in value of industry per operator number and average farm size, a sign of ongoing growth of the market overall.

With an upper estimate of 16.9m ha from industry certification agency sources and a lower estimate of 11,199,577.4 ha from ABS, Australia remains with the largest amount of certified organic farmland in the world, the majority of which is used for extensive grazing.

Australia remains with the single largest area of certified land area within an estimated 37m ha of agricultural land managed organically by some 1.6 million producers worldwide.

Organic production values

In 2011 organic farm-gate values were conservatively estimated to be $300,637,412 up by some 34.67% from the 2010 Report or over 16% per annum increase over the two years prior.

There were 747 operators certified as value adders or marketers. Combined with farming operations certified and other certifications (farm input businesses and so on) the total number of certified operations is 3069 in 2012.

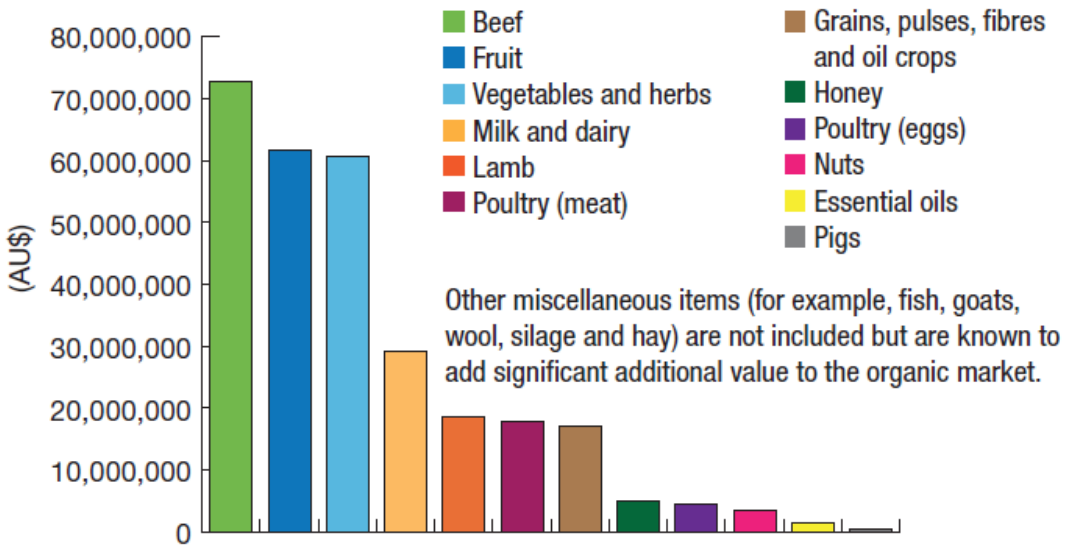


Figure 2 Organic farm-gate market value figures (AU$)

Organic supply chain

The total retail value of the Australian organic market consolidated from both primary industry figures and industry intelligence information for fresh and processed lines is estimated in 2012 at $1.15bn, up from $947m in 2010.

Margins for processors and marketers have been variably reported while overall turnover in general is up due to higher throughput in 2012. The majority (62%) of operators are bullish about the future growth prospects of the sector and plan to increase by up to or more than 10% in 2013, while another 33% expect similar sales in 2013 and only the remaining 5% expect declines of up to 10% or more.

Supply of consistent, quality product remains the major challenge for sustained industry growth in the larger supermarket and processor sectors, while production-planning and relationship building along the supply chain remains critical for some sectors. The dairy and the meat sectors have exemplary supply chain networks that have arisen from years of capacity building and market development.

Australian-based certifiers maintained up to eight international country access and market accreditations including for the US, Japan, Canada, the EU, Korea and IFOAM and were active in 12 countries (as part of import/export trade into and out of Australia) with some 85 client operations. This is in addition to Australia's having an export standard and regulatory scheme in place to achieve 'equivalence' arrangements with importing countries.

The Chinese market, while offering great future potential for Australian businesses, has more recently made trade growth difficult due to regulatory and standards divergences. Similar in the past to other markets, including the US, Japan and Korea, specific market requirements, including additional certification requirements, are adding cost and complexity to exporters interested in serving this market.

The Australian organic consumer in 2012

Over one million Australians regularly purchase organic food products, while 65% of consumers buy organic food on occasion. While 'Leaders' remain the core of this purchasing activity by volume and regularity, there is a broadening base or 'mainstreaming' of organic consumers occurring, with one out of four (24%) 'Laggards' occasionally purchasing organic foods (up from 15% in 2010).

Based on aspirational claims of consumers polled, the market value potential currently could be estimated at in excess of $5bn, recognising that with ongoing reduction in barriers to purchase that there remains much potential 'blue sky' for producers and marketers of organic products.

Three in four purchases of organic products were made at a major retailer in 2011, representing a market shift as more mainstream consumers purchase organic products.

Organic fresh produce is the first entry point for most first-time consumers and represents a major spend in the organic shopping basket.

Major barriers to purchasing organic products remain price and availability, though both have reduced as barriers in 2012, along with an increase in trust and a significant growth in recognition by consumers of the importance of certification marks on organic products.

Trust in organic products, particularly with an organic certification mark, has increased. Over 60% of consumers indicate that an organic certification mark increases their level of trust in the product.

Big retail remains the largest driver of growth over the 2010–12 period and is expected to remain the largest single channel for future volume growth for the organic industry. This is despite the industry's maintaining a solid diversity, from independent retail formats to direct marketing arrangements.

Reflective of this is that one of the key barriers to greater purchase by consumers (ease of access) has reduced considerably, most likely due to the greater availability of product on retail shelves.

2.3.3 Growth Prospects

The *Australian Organic Market Report 2010* showed a 48% increase in farm-gate sales in the two years to 2010 and industry retail value estimated at $947m. With a break in drought conditions, though not without other challenges outlined in this Report hampering some sectors, further growth of $1.276bn including exports has been experienced in the two years to 2012.

'Easy gains' of industry value growth could be over. Growth is continuing but with far tighter financial margins and more realistic expectations of growth of 10–15% per annum. Backed by separate research findings and claims (IBISWorld 2012a), these estimates still put organics in one of the 'top five growth industries' in Australia in 2012.

Growth in the coming years is expected to remain respectable and well above conventional food and beverage market growth. There will also be standout sectors and businesses that grow well beyond this average.

The challenge for the organic industry is to manage the further squeezing of margins while remaining financially viable and able to invest in innovation and business development to keep up with changing consumer demand of specifications.

Organic horticulture has also seen the entry and establishment of well-known conventional primary producers such as Coolibah Herbs and Mulgowie Farming Company

Some businesses in the fast-moving consumer goods sector are adapting to the new environment of supermarket chain dominance and consequent price and margin contraction. Suppliers such as KADAC recognise that even though the demand through big retail is growing, independent outlets that are resilient and reliable will only falter if neglected. The growth of independents such as Wray Organic underscores the potential for this sector to grow significantly within the right settings.

The 2012 merger of Cleaver's Meats and Sanger Australia's The Organic Meat Company is testament to the consolidation going on within the organic marketplace. The union brings together the largest exporter with the largest single domestic organic supplier to the major supermarkets.

Horticulture has continued to experience flattening of margins and mixed communication about market requirements. Some primary producers have remained solid in the face of changes within the sector (though often taking hits to the margin).

Organic horticulture has also seen the entry and establishment of well-known conventional primary producers such as Coolibah Herbs and Mulgowie Farming Company. These

companies now have organic farms as part of their marketing approach, with an ability to scale up. Organic primary producers continue to experience pressures on margins and expectations of 'get bigger or get out'.

Some in the larger end of the horticulture sector haven't survived industry changes and have closed or gone into administration in the two years to 2010, including Ladybird Organics, Clyne Foods and Kailis Organic Olive Groves. The latter was put into administration in 2011-12 with a mixture of a high Australian dollar, a tighter environment in which to raise equity and debt and a flood of cheap olive oil all impacting. In the food services sector, catering providers such as Original Foods and Organicus failed to achieve market support and profitability and faced liquidation in Melbourne and Sydney respectively. In contrast some award winning and leading restaurateurs have successfully championed organic food and beverage. Mark Best of Marque and now Pei Modern is one of the latest entrants into this (high value food services) space and is doing exceedingly well in an environment that is washing away others who are possibly less stable, overcommitted and facing financial strains.

The growth in the range of organic lifestyle products is on display with the likes of cosmetics (Sydney Essential Oil Company), boutique beers and mainstream wines (Angove Family Winemakers) and fertiliser products (Seasol) available on supermarket shelves and through export markets.

2.3.4 Two Faces of Consumers

Increasingly evident are two types organic consumer: the traditional, who is often found in the minority 'Leaders' category of consumers (those more likely to purchase green products and be a leader in environmentally aligned practices) and the mainstream consumer. Traditionals are more likely to frequent independent retailers, farmers' markets and specialised organic greengrocers, whereas mainstreams are more likely to purchase at supermarkets and are possibly less interested in the broader environmental and social/welfare attributes of organic.

This divide is becoming more evident as the average organic consumer is arising increasingly from the mainstream rather than the traditional segment of consumers. The challenge for the organic industry is to meet the expectations of both consumer types while remaining relevant, as well as improving ease of availability and pricing.

The caveat here: value is about benefits minus price. Organics is perceived by consumers as having qualities conventional food doesn't have. Organic standards and the third-party auditing and certification processes verify this for consumers. Organic standards in some sectors lead to higher production costs (for example, carrot or cereal producers not utilising herbicides to control weeds; animals not contained in cages or feedlots; organic animals fed organic feeds). Consumers are likely to never comprehend these production costs.

Prices have rationalised to points that have seen new product ranges born or new consumers enter the market. The organic supply chain remains a fragile and easily disturbed or disrupted channel and one where short-term gains for retailers and consumers on lower prices may lead to longer-term bottlenecks arising from a lack of willing suppliers (either farmers or processors) to fill the demand at rationalised prices.

The ideal balance is pricing that keeps sufficient numbers of farmers and processors in business while supplying and satisfying the requisite number of consumers willing to pay a price they deem good value, even if that price is above conventional food prices.

While price/value remains the highest recognised barrier to the purchase of organic produce, this barrier has reduced since the *AOMR 2010.*

Prices have rationalised to points that have seen new product ranges born or new consumers enter the market.

There remains a growing consumer interest in purchasing products with health, food safety, environmental and animal welfare benefits – attributes inherent in organic foods and beverages. There is also a growing number of consumers who dabble occasionally in organic foods, when the time, price and product take their fancy. Even a doubling of this consumer impulse will have

a significant impact on industry growth. This is one thing that big retail does understand and is clearly trying to position on.

For organic industry stakeholders, the challenge is to rise to meet those demands, while remaining true to the ideals and compliance requirements of the organic standards and also remaining profitable and resilient to withstand the forces and distractions of this tense but exciting growth phase of the industry.

2.3.5 Organic Production Values

Value of Organic Market Sectors

The estimate of Australian farm-gate sales of certified organic produce is $300,637,412 – a rise of 34.67% over the two years to 2012 or 16% per annum. Sales from part or fully certified organic farms according to the ABS 2011 Agricultural Census is $432,211,807.

Beef, fruit and vegetables have the highest sales followed by dairy products. Fruit and vegetables are the most regular items purchased by consumers.

In 2001 industry estimated organic farm income was $89m, including organic goods sold on the conventional market (Wynen 2003). In 2003, Halpin (2004) estimated $128m for certified organic sales. In the *Australian Organic Market Report 2010* the farm-gate value estimate was $223,224,003.

Commodity	National estimate 2012	National estimate 2010	National estimate 2004
Beef (including calves)	72,756,243	34,456,100	52,349,101
Fruit	61,616,250	39,700,000	21,373,875
Grapes (included in fruit total)	4,854,346		
Vegetables and herbs	60,610,721	77,500,000	24,384,964 (Nurseries included)
Nurseries (included in veg and herbs total)	3,584,000	-	-
Dairy products	29,225,572	17,914,000	7,410,000
Wool	25,360,226	826,993	nr
Lamb	18,643,215	11,307,000	2,915,387
Poultry (meat)	17,713,370	15, 349,000	353,337
Grains and oilseeds	17,006,447	9,456,000	17,565,525
Fodder (hay)	5,527,539	nr	nr
Honey	5,020,000	9,789,000	nr
Eggs	4,387,287	3,200,000	795,755
Nuts	3,408,732	2,234,824	with fruit
Goats	1,910,608	nr	nr
Essential oils	1,389,345	1,234,056	nr
Pigs	421,884	255,030	745,750
Misc.	3,627,000	nr	nr

nr = not reported in prior reports
NB: Wool, goats, fodder and misc. not included in total estimate farm-gate sales

Figure 10 Estimate of national sectoral farm-gate sales (AU$)

Vegetable and herb production

The organic vegetable industry is a diverse sector. Producers range in size and market orientation. Vegetable producers are feeling the pressure of reduced prices as volumes have increased. Underlying this remains unmet demand for consistent supply of quality products, particularly to the major retailers.

A limited number of medium to larger farms often produce only one or a few commercial crops, while smaller producers traditionally produce a broad variety of crops for local and sometimes state capital city markets. Many of the smaller farms are not captured in the ABS data, leading to an underreporting of operator numbers for this sector.

The organic vegetable sector has undergone considerable structural adjustment over the past few years with the entrance of major retailing chains, which in turn has created higher demand for produce. The expansion of some existing organic producers, combined with the entrance of some larger conventional producers, now with organic lines, has resulted in reduced farm-gate prices. It has also forced some to exit the industry, or market only to local markets, where before they may have supplied state capital markets.

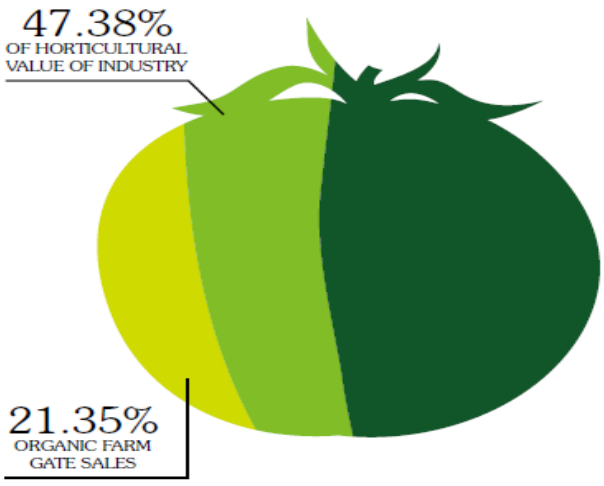
This adjustment is evident in the direct supply of some product lines (from carrots to bananas) from larger producers, or networks of producers to retail markets where traditionally they would have gone through certified organic wholesalers. Conventional wholesalers with organic certification have also entered the organic vegetable market.

While some of the long-standing certified wholesalers have reported healthy increases in overall throughput as well as turnover, others have reported no significant increase in turnover over the past year. The latter are more likely to be suppliers exclusively to smaller independent retailers, where there is growth but also increased pressure on margins.

Some producer-driven cooperative marketing structures, such as the Organic Farm Gate, exist in this industry, though they are rare. Most producers, unless of considerable size, choose instead to market their products via the traditional wholesaling sector. Most capital cities have more than one organic wholesaler. Some wholesalers (like long-established Eco-Farms or Moraitis) are based in more than one state.

The 2010–2012 period was not an easy one for some producers, even with the end of drought. Some had been hit by fire (Vic) followed by floods (Vic, NSW, Qld), plague locust (Vic, NSW) and other natural challenges that have put some producers well behind production plans and have significantly strained finances.

Production was also reported as having been impacted by flooding in 2010-11 according to the conventional production report by ABARES (2011b): "… flooding in eastern Australia is estimated to have reduced agricultural production by at least $500–600m in 2010-11, with significant impacts on the production of fruit and vegetables …".



Percentage of organic market share: vegetable and herb sector

Sales and volume

The certified organic vegetable industry reports farm sales of $60,610,721, down from 2010 estimates (noting also the shift to use of ABS data in the 2012 report for the first time). Reports of volume of production were stable from a range of producers and wholesalers, however prices per kg are generally lower than in the past two years. This is most likely due to the entry of larger producers who are supplying higher volumes into the major retail chains. This may account for some of the estimated lowering in overall value of this sector through this time.

The major value crops are carrots, potatoes, broccoli and pumpkins, while lines such as herbs ($2m), asparagus ($0.954m), sweet corn ($1.198m) and lettuce ($1.37m) filled niches in this

market. The ABS categorisation that the 'other vegetables' category alone reported $11,031,614 in value, which includes crops such as zucchini, eggplant and capsicum.

Some product lines such as tomatoes remain consistently undersupplied from a small number of producers.

Sectors not specifically covered in this Report include certified organic nursery production. Operations recorded by the ABS are in Western Australia, Northern Territory, South Australia, Victoria and Queensland, with Queensland rating the highest production of undercover nursery production. National farm-gate value for the nursery sector is estimated at $3.584m.

Some product lines such as tomatoes remain consistently undersupplied.

While operators are increasingly seeking certified organic seedlings there remains an undersupply of reliable, certified nursery material. While it is not mandatory to source certified organic seedlings (if not available in commercial quantities) the production and certification of seedlings for producers remains a market opportunity for nurseries.

Organic floriculture (flower farming) is in an infantile state in Australia, but with prospects as the market for organic lifestyles continues to develop. Areas in Queensland and Victoria are producing in this sector, however recorded retail sales of such products has not been researched or recorded.

Mushroom production was reported from four producers only in Victoria, Queensland and New South Wales.

Looking forward

The post-farm-gate surveys from processors and wholesalers makes this point clear: "The lack of a reliable supply of organic fruit and vegetables (for processing) in Australia has made it almost impossible to support local growers".

Larger retailers continue to cite lack of consistent volumes of supply of a range of staple organic vegetables as hampering the potential growth of this sector – this is despite many farmers claiming they are regularly stuck with product that cannot be sold on the organic market at a reasonable price.

Producers also cite pricing and cutting of margins to points where it is not viable for them to risk production of a given crop as the reason for not supplying. The work of wholesalers and retailers collaborating to establish more confidence in production and supply planning will be critical for this industry sector to move beyond this impasse.

2.3.6 Organic Supply Chain

Processors, manufacturers and marketers

Swinburne University of Technology obtained responses from 347 of 747 publically available or known Australian certified organic processing or marketing businesses (from a total industry estimate of 765) in the post-farm-gate industry survey 2012.

The largest segment of activity is by processor/manufacturer, comprising 59.3% of all organic activity post-farm gate. Wholesaler/retailer accounts for 20% and those with business involvement in a combination of segments accounts for 20.7%.

This sample reflects what is happening industry wide, where organic certified processors and manufacturers dominate compared with the number of organic certified retailers (most retailers rely on the packaging and independent certification of the products they sell).

Thirty per cent of the operators indicate that they have turnovers of less than $100,000. The next largest category included the 16% of operators who declare a turnover of between $100,000 and $300,000, while only 3% of operators declare a turnover of greater than $50m. This is reflective of a diverse industry with a significant number of small to medium businesses.

Figure 19 indicates that 33% of post-farm-gate organic businesses have a business retailing fruit and vegetables, followed by beverages 23%.

Cosmetics/beauty products may be over-represented (by overall percentage of certified businesses in the industry). This sector is growing strongly with heightened interest and involvement from industry stakeholders (possibly explaining the higher response rates.

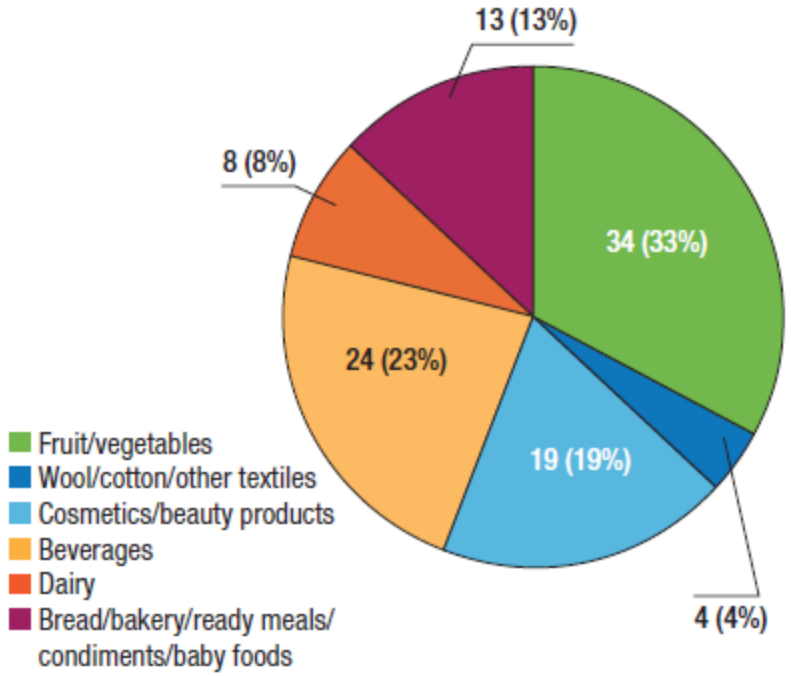


Figure 19 Selling activity of respondents (Responses n=102)

Most post-farm-gate businesses are certified by Australian Certified Organic (ACO) 72% followed by NASAA (NCO) 20%. This accords with known market share of certifications of this post-farm-gate sector and confirms that the sample size is representative of industry based on certified client types. Whilst no responses are directly from TOP-certified clients, which only certifies Tasmanian producers, Tasmania is represented due to mainland based certification agencies certifying processors and wholesalers in that state.

Reported sales per sector show registered sales of $591.3m from retailers, followed by processors/manufacturers $294m. This is lower than representative of industry values as a whole. Wholesalers account for $135m. This is in accord with their sectoral share, which is 11.1% of the organic industry. Exports are reported as 10.4% of overall reported values.

Australia's two largest retailers each have 500 certified organic product lines, and are expected to expand. Australia's other major retailers, such as IGA, ALDI, FoodWorks and Costco also carry a range of certified organic products.

The overall value of organic retailing in Australia is estimated at $1.15bn.

The value of the independent retail sector is testament to a resilient and long-standing market for the organic industry. One million Australians regularly purchase organic products mostly from smaller or independent retailers, suggesting that these retailers have the opportunity to expand and move with the changing expectation of consumers: increased access, competitive pricing and extras such as cafes and nutritional advice.

The example of Wray Organic is testament to this with their success in expanding out a franchise model in the face of big retail domination. Many independents have to rethink their business model due to tighter margins and the need to market their own businesses.

Figure 22 is revealing because it shows that most organic operators work across more than one state 73%. This is indicative of an industry that is highly networked and requires direct supply from, and market access into, more than one region or city.

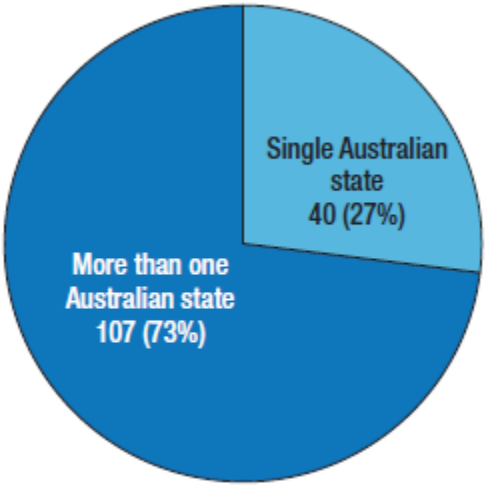


Figure 22 Organic operators across states (Responses n=147)

Interview observations and trends

Thirty-two interviews were conducted in conjunction with the survey data collection. Company representatives interviewed are from a range of organic sectors including beef, lamb, pork and poultry, grains, fruit and vegetables, general groceries, personal care products, baby foods and dairy.

While industry growth rates are reported as being moderately positive, interviews with industry representatives suggest a more upbeat feeling.

Representatives see even higher growth levels for their own companies in the immediate future. These views provide substance and support to the positive picture emerging within organics and forecast growth rates.

Company representatives provide credible estimates of their expected growing sales figures. The average growth forecast on the previous year for their organic products is 15% with some indicating 20 and up to 50% growth for their own sectors and/or businesses. The prediction for 2013 is equally optimistic. Very few indicate declines, though a few feel they expect stable sales and/or declining margins, which will lead to a similar net profit but with increased volume throughput. Through the industry interviews, the total industry turnover estimate, based on other data sources including farm level data, of in excess of $1.2bn as a total turnover, is verified.

Many operators choose varied forms of distribution for their organic products, which include wholesale, retail, own retail and farmers' markets. In most cases food miles are considered to be too high.

Online sales is a growing form of distribution though there is little verifiable data to clearly indicate the level at which it is growing.

Business concerns and identified issues

Some operators feel that the organic industry is reaching a point where new business models will be required. The industry is gaining a greater level of acknowledgement and acceptance and as such is 'growing up'. The industry reflects many macro-economic concerns including higher costs and export concerns over the high Australian dollar and global market access. As one operator indicates,

"Costs and administration of doing business with organics is too high and the … industry too competitive with cheap imports." Another operator states: *"I am finding the continual price increases of raw ingredients, manufacturing costs and high cost of utilities very expensive. Not enough support for small businesses to succeed."*

Interestingly some operators also express concern about global issues – such as the instability and conflict in the Middle East – that they see as impacting on their products. Concerns over sustainability of their product, of their industry and of their market share are regular responses provided in these interviews.

Many of those interviewed premise their remarks and responses with concern about the state of the economy and fear that their product and sales growth may be jeopardised by macro-economic concerns. There is a feeling of volatility of the industry. Some retailers are launching their own private label products. This is felt as a threat both to their ability to provide for the market and the power of the retailers to lead and direct the market.

There is also the desire to see accreditation organisations work on joint recognition of standards and certification streams to simplify trade.

A number of operators indicate that energy supply, sustainable supply and usage have become an issue for them over the last few years. Moreover there is the feeling that the industry is not getting due recognition in a number of areas such as carbon trading and emissions schemes.

Some operators are concerned that there needs to be greater coordination with farmers in terms of their entry into the market as well as the coordination of supply.

This is confirmed by one operator: *"The lack of a reliable supply of organic fruit and vegetables (for processing, including freezing) in Australia has made it almost impossible to support local growers."* There are reported supply difficulties and exports are also taking up much of the scarce product.

Some operators indicate that they require more help from government with accessing and being accredited in external markets with reference specifically to China, given its more recent changes that now do not recognise the Australian standards and Australian Government accreditation program.

One operator indicates, *"The (Australian) Government should legally protect the word organic like in the US."*

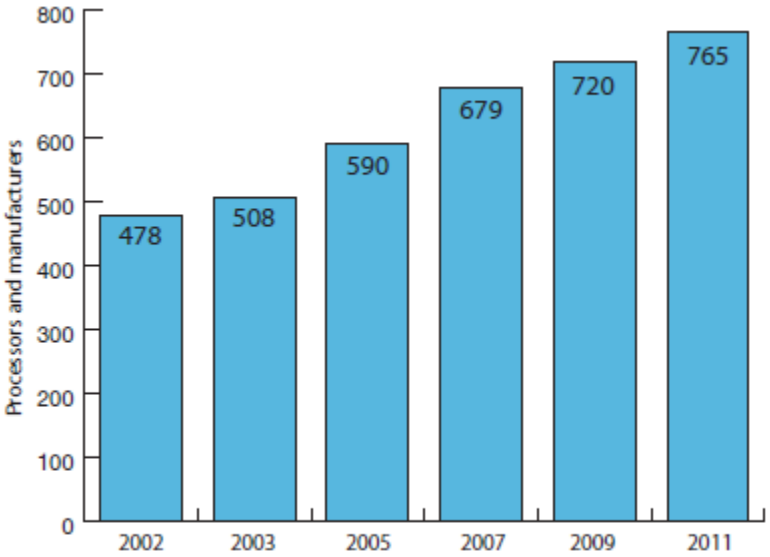


Figure 30 Processors and manufacturers – total numbers 2002–2011

	2002	2003	2004	2005	2006	2007	2008	2009
Supermarkets/hypermarkets	61.0	62.1	63.0	63.5	64.0	64.5	66.8	67.5
Discounters	1.0	1.0	1.0	1.1	1.1	1.1	1.5	1.6
Small grocery retailers	19.5	20.5	21.0	21.3	21.5	21.4	20.8	20.3
Convenience stores	5.1	5.1	5.0	5.0	4.9	4.8	4.2	3.8
Independent small grocers	12.3	13.4	14.0	14.4	14.7	14.8	15.1	15.3
Forecourt retailers	2.1	2.1	2.0	2.0	1.9	1.7	1.5	1.2
Other store-based retailing	11.1	8.8	7.4	6.5	5.7	5.3	3.2	3.0
Other grocery retailers	10.1	7.9	6.6	5.7	4.9	4.5	2.5	2.5
Non-grocery retailers	6.9	0.9	0.8	0.8	0.8	0.8	0.7	0.6
Non-store retailing	7.4	7.5	7.6	7.6	7.7	7.7	7.7	7.6
Vending	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3
Home shopping	2.3	2.3	2.2	2.2	2.2	2.1	2.0	1.9
Internet retailing	3.0	3.1	3.2	3.3	3.3	3.4	3.5	3.7
Direct selling	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7

Figure 32 Percentage distribution of organic products (Euromonitor 2010)

World trends and values

The International Federation of Organic Agriculture Movements (IFOAM) reports global sales of organic food and beverages reached US$59bn in 2010. This suggests that the global market has expanded more than threefold in 10 years. North America and Europe comprises over 90% of global demand, the largest markets being the US, Germany and France in that order (Willer & Kilcher 2012).

According to Euromonitor (2012a), the Global Health and Wellness Food and Beverages report has a measured value of total 'green' consumer items of US$601bn. While many of the products in the Euromonitor report are not certified organic, the figure is indicative of the potential size of this sector as well as the economic opportunity for the production of quality food.

World regions	2004	2006	2008	2010
World	16297.2	20,417.2	26,751.8	27,079.2
Asia Pacific	595.0	645.6	798.2	992.8
Australia	324.4	364.1	410.9	461.2
Eastern Europe	141.0	343.2	540.6	510.2
Latin America	28.9	143.4	226.3	306.8
Middle East and Africa	20.4	22.0	31.4	35.3
North America	7676.7	10,091.2	12,957.0	13,190.7
Western Europe	7551.9	8,855.6	11,806.8	11,578.9

Figure 33 Euromonitor estimated values of world organic markets (US$m)

2.3.7 The Australian organic consumer in 2012

Each year Australian consumers are asked a range of organic-specific questions as part of the broader Green-Tracker research conducted by Mobium Group.

In May 2012 Australian organic consumers were asked the regular set of questions, as reported in the *Australian Organic Market Report 2010*, along with some additional questions relating to country of origin, retailer origin and trust in organic foods, where a recognised certification mark was present.

This section makes references to Lifestyles of Health and Sustainability (LOHAS) types: Leaders (are highly committed to sustainability), Leaning (have moderate commitment), Learners (have recent awareness of sustainability) and Laggards (have low levels of interest).

The summary of results below builds on four years of comparative data of organic consumers in Australia.

Consumer understanding of organic

Year on year there is strong consistency within the Australian community about the perceived benefits of organic food. 'Free from' aspects remain the key perceived benefits of organic food in Australia, continuing a consistent pattern over three years from 2009.

Four of the five leading benefit attributes overall continue to revolve around what organic food 'does not contain'.

Benefit attributes are chemical free (79%), additive free (77%), hormone/antibiotic free (64%) and non-GMO (62%).

Enhanced food traceability (48%) continues to lift as a known benefit, moving to the 6th ranked, up from 14th in 2010. This outcome is reflective of larger social trends that show consumers are becoming more interested in the source of their food.

Increased nutrition (47%) and better taste (42%) continue to be rated more moderately in terms of understood benefits.

The number of those who saw benefits between organic products and climate change dropped dramatically in 2012 compared with 2010. This may reflect general community fatigue and disengagement about climate change and carbon emissions due to the protracted carbon tax debate over the period. A consistent 7% overall said that they were 'not sure' or 'don't know' what the benefits of organic food are.

The research suggests that community understanding of the key benefits of organic is well entrenched and clear.

Benefits of most importance to consumers

Most consumers rate the chemical free and additive free attributes, as well as enhanced nutrition and taste, as the most important benefits of organics to them.

Those organic benefits with the highest importance have remained consistent in their overall ranking since 2010.

The benefits of organics with the highest combined 'of high importance' and 'of moderate importance' rating are chemical free (89%), additive free (88%), more nutritious (88%) and better tasting (85%).

Each of these benefits exhibits a strong level of 'what's in it for me?' personal benefit. Those aspects that provide a health and wellness payback have the strongest resonance and are the most salient themes for the majority of the community.

The addition of two new aspects in 2012 has impacted on the rankings of some stated benefits. Notable changes include:

- 'Improves my overall health and wellbeing' (new in 2012) ranked 5th overall highlighting the importance placed on personal health. Does not contain GMOs slipped from 5th to 8th ranked (perhaps reflecting a lack of mainstream media attention on this issue over recent years)

- 'Fair prices/wages to farmers' lifted from 10th to 9th (potentially impacted by ongoing price wars between the major supermarkets on milk and other commodity-based products that are squeezing farmer/grower/supplier margins).

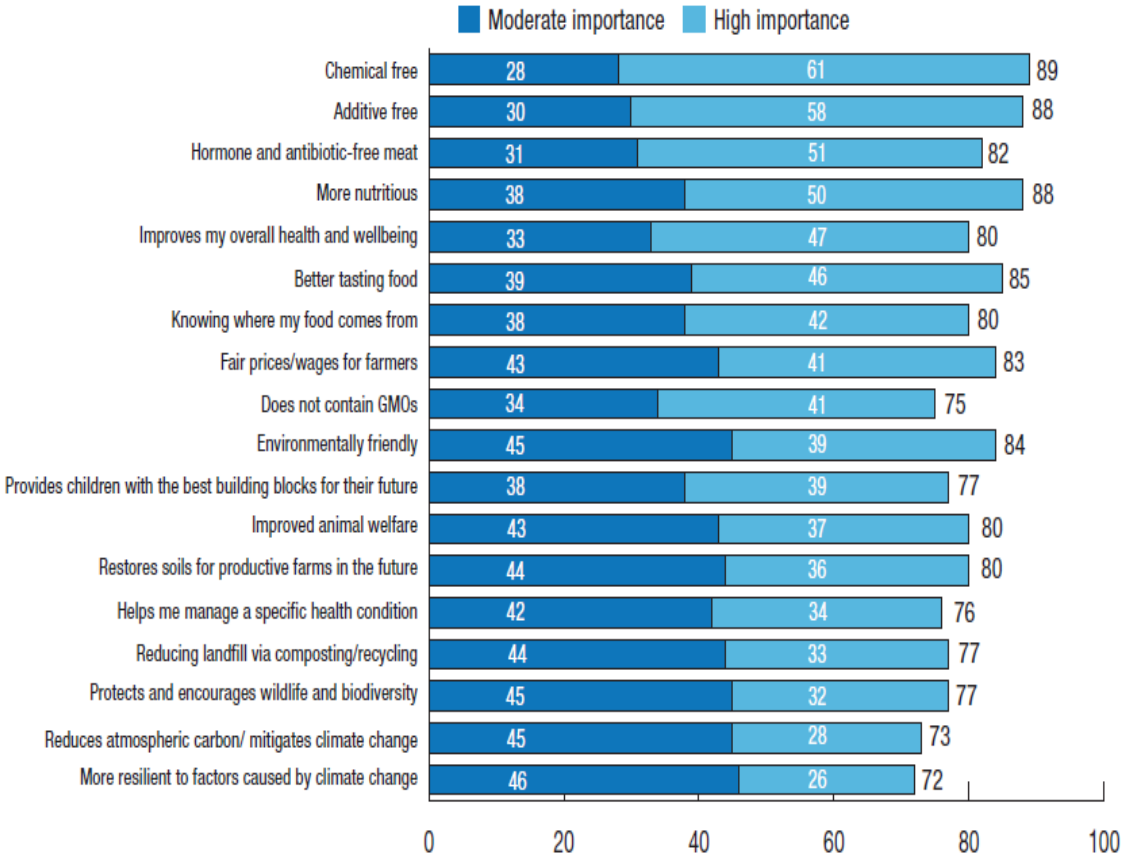


Figure 38 Organics: important factors (%)

2.3.8 Purchasing Behaviour

How often do Australians buy organic?

In 2012, 65% of adult Australians claimed to have purchased at least one organic product, with over one million Australians regularly purchasing organic products.

Demographics are not good predictors of tendency to purchase, the strength of individuals' values about personal, community and planetary wellbeing and the manifestation of these in one's worldview and lifestyle options. The strength of LOHAS alignment correlates with participation in organics.

The base of organic product purchasing is drawn from all parts of the community. The demographic profiles of an organic purchaser and non-purchaser show very similar characteristics

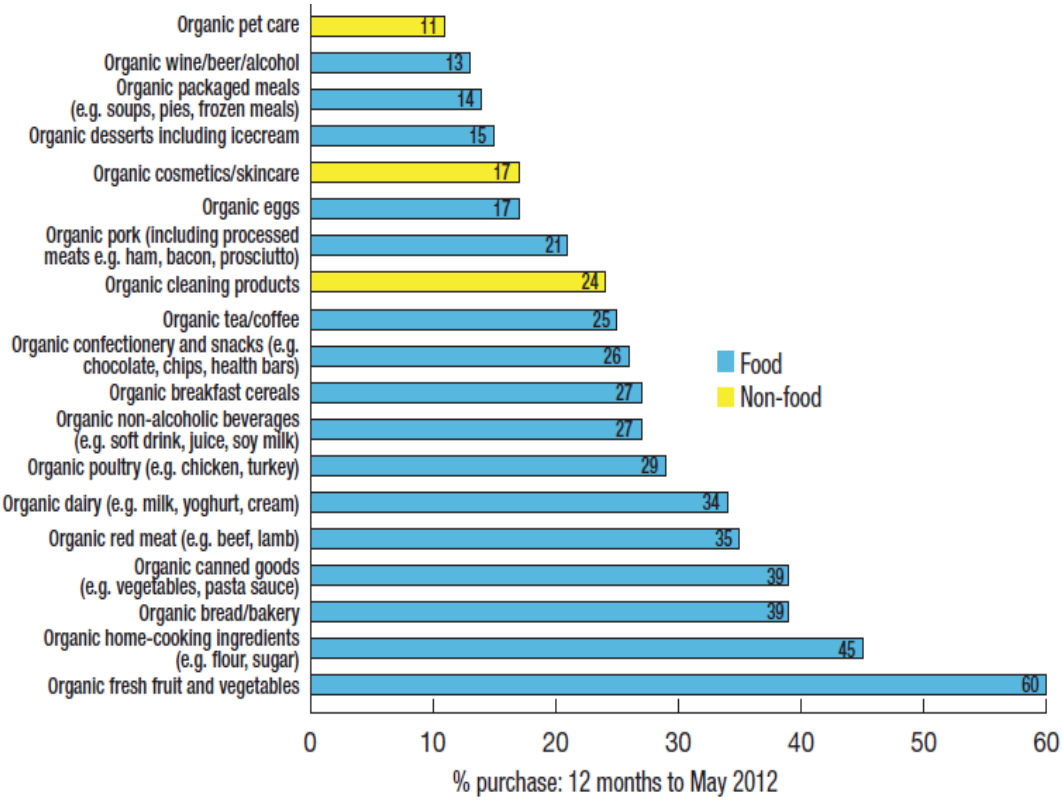


Figure 39 Participation rates

The demographic profiles of an organic purchaser and non-purchaser show very similar characteristics.

The penetration of organics within the community remains strongly aligned to LOHAS segments. Leaders continue to be the most committed group, with 92% saying they had purchased organic in 2010. However there is good progression across all segments: Leaning, Learners and Laggards segments all show strong gains in participation compared with 2010.

In 2012 nearly eight in 10 in the Leaning group said that they had purchased organic compared with over half those in the Learners and now just under a quarter of the Laggards. Laggards, while remaining 'under-indexed' in terms of participation, are up 60% on 2010 figures.

The use of organic products amongst Australian households is progressively becoming more mainstream over time. Continuation of this trend will be important for sustained industry growth into the future. The impact of even a doubling of purchase behaviour by infrequent (but still growing in number) consumers could increase sales of organic products.

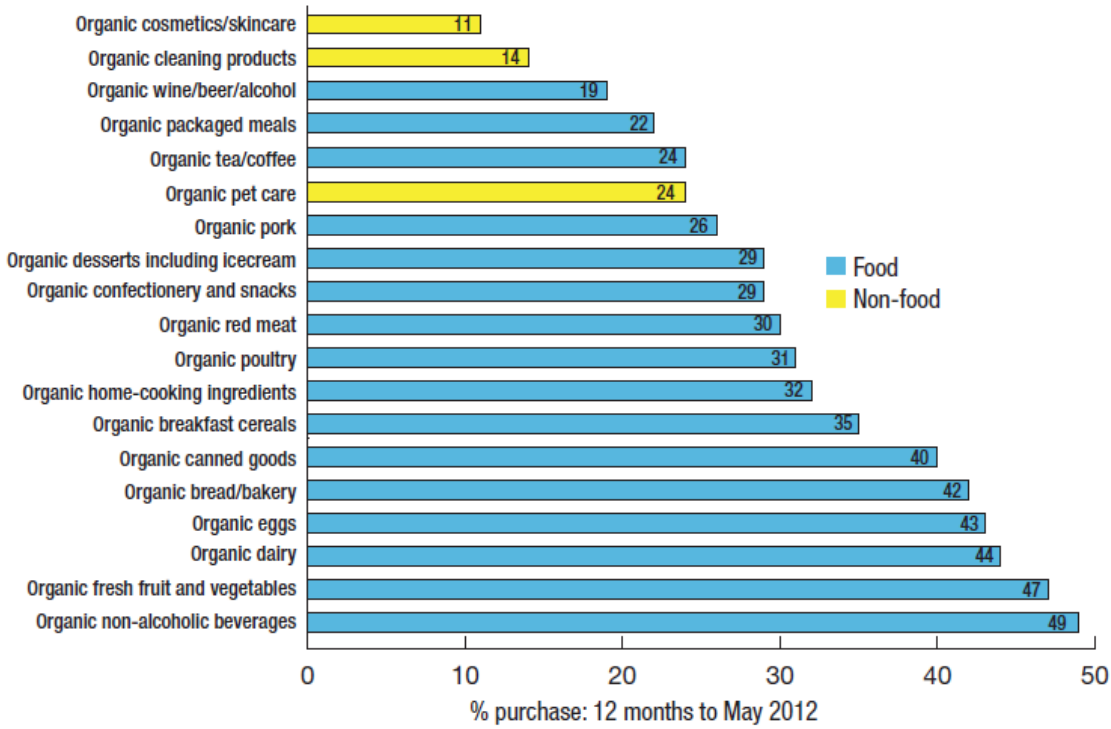


Figure 40 Frequency of purchase every 1–30 days

Who buys organic?

The household purchase penetration of organic food categories varies widely.

LOHAS Leaders remain the primary participants in the organic market. This cohort participates at much higher rates across all categories than the rest of the community – in many segments two or over three times higher than the overall average. There is a major opportunity for the organic industry to drive increased participation in the Leaning and Learners components of the community.

Engaging these groups will be crucial as participation rates of the Leaders move towards saturation. Fresh produce is the most highly shopped organic segment, with 60% of households indicating that they purchased at least one organic fresh fruit or vegetable in the past year (up from 57% in 2010) (see Figure 39).

The use of organic products amongst Australian households is progressively becoming more mainstream over time.

Household staples are next (cooking ingredients 45%, canned goods 39%) then bread (also 39%), red meat (35%) and dairy items (34%).

In general food products have the highest participation rates, in contrast to non-food items such as cleaning products (24%), cosmetics/skincare (17%) and pet care (11%).

Almost all organic product categories have experienced increases in claimed participation rates compared with 2010.

Purchasing of organic dairy is up by 6%, as are poultry and confectionery/snacks; non-alcoholic beverages and pork are up 5%. These segments showed the biggest gains.

The purchase frequency of organic products amongst current purchasers exhibits wide variation by category.

No single category has over 50% participation on a monthly basis (see Figure 40).

As expected, participation frequency is stronger for consumable food items than for non-food categories.

Non-alcoholic beverages are the most likely to be purchased every month, with 49% of current organic purchasers indicating they buy every 1–30 days. Fresh fruit and vegetables (47%), dairy products (44%), eggs (43%) and bakery items (42%) have the next highest level of frequent purchase.

Current organic purchasers are showing a tendency to purchase more frequently in most categories compared with 2010.

Of the 19 categories, 15 showed an increased level of purchase every 1–30 days. Dairy, bread/bakery, breakfast cereals and packaged meals all showed the strongest improvement – up 4% since 2010.

Organic canned goods (-2%), desserts (-2%), cleaning products (-2%) and cosmetics (-1%) categories were purchased less frequently (every 1–30 days) than in 2010, albeit noting a rounding average of 1% discrepancy.

Most current organic purchasers are infrequent purchasers in the majority of categories.

Whilst category consumption dynamics have an impact, there is a clear opportunity in all categories for current organic purchasers to continue to increase their frequency of buying.

The Leaders are by far the most committed and regular participants in the market.

The Leaning, Learners and Laggards who do buy organic purchase on a much more ad hoc basis in general, with significantly lower frequency than the Leaders.

Product	2012	2010	Variance
Organic fresh fruit and vegetables	60	57	+3
Organic home-cooking ingredients	45	44	+1
Organic canned goods	39	42	-3
Organic bread/bakery	39	33	+6
Organic red meat	35	33	+2
Organic dairy	34	28	+6
Organic poultry	29	23	+6
Organic breakfast cereals	27	23	+4
Organic non-alcoholic beverages	27	22	+5
Organic confectionery and snacks	26	20	+6
Organic tea/coffee	25	21	+4
Organic cleaning products	24	26	-2
Organic pork	21	16	+5
Organic cosmetics/skincare	17	13	+4
Organic eggs	17	12	+5
Organic desserts including icecream	15	15	0
Organic packaged meals	14	10	+4
Organic wine/beer/alcohol	13	11	+2
Organic pet care	11	9	+2

Figure 41 Organics: category purchase penetration (%)

Product	Every 1–30 days	Every 1–2 months	Every 3–6 months	Less than every 6 months	Don't know
Organic non-alcoholic beverages	49	16	15	16	4
Organic fresh fruit & vegetables	47	21	15	13	4
Organic dairy	44	34	6	9	7
Organic eggs	43	25	9	16	7
Organic bread/bakery	42	26	13	11	8
Organic canned goods	40	27	13	14	6
Organic breakfast cereals	35	31	14	13	7
Organic home-cooking ingredients	32	35	19	11	3
Organic poultry	31	25	17	19	8
Organic red meat	30	24	25	15	6
Organic desserts including icecream	29	29	19	13	10
Organic confectionery and snacks	29	26	23	11	11
Organic pork	26	29	20	16	9
Organic tea/coffee	24	39	19	13	5
Organic pet care	24	33	11	21	11
Organic packaged meals	22	41	13	16	8
Organic wine/beer/alcohol	19	31	21	22	7
Organic cleaning products	14	36	19	22	9
Organic cosmetics/skincare	11	26	35	17	11

Figure 43 Organics: category purchase frequency (%)

Barriers to buying more organic

Value, trust, quality and information are the largest barriers for Australian consumers in further uptake of organic food. These barriers have all significantly decreased since the 2010 Report.

Cost continues to be the most significant overall barrier to increased purchase of organics; 80% of all respondents rated 'price/value' (81% in 2010) as the primary roadblock to increased participation in organics.

'Being able to 'trust it is organic' was next at 48%. Overall this aspect fell from 57% in 2010 suggesting that there is growing confidence in the integrity of organic food claims.

'Quality of produce' was cited by 41% (46% in 2010). Forty-one per cent say that they are interested in more information about organics to assist in making an informed choice (up from 39% in 2010).

Over-packaging (7%) and freshness of produce (19%) remain weaker barriers for most. Over-packaging in particular is an interesting outcome given there is a vocal minority not satisfied with current packaging arrangements, particularly arising from the mainstream retailers.

Availability and convenience issues continue to wane as barriers with 'easier access/convenience of buying' continuing an easing bias in 2012 – 39% say this is a current issue compared with 50% in 2010.

This outcome is in line with continued ranging of more products in more categories, in particular in mainstream supermarkets, increasing access and convenience.

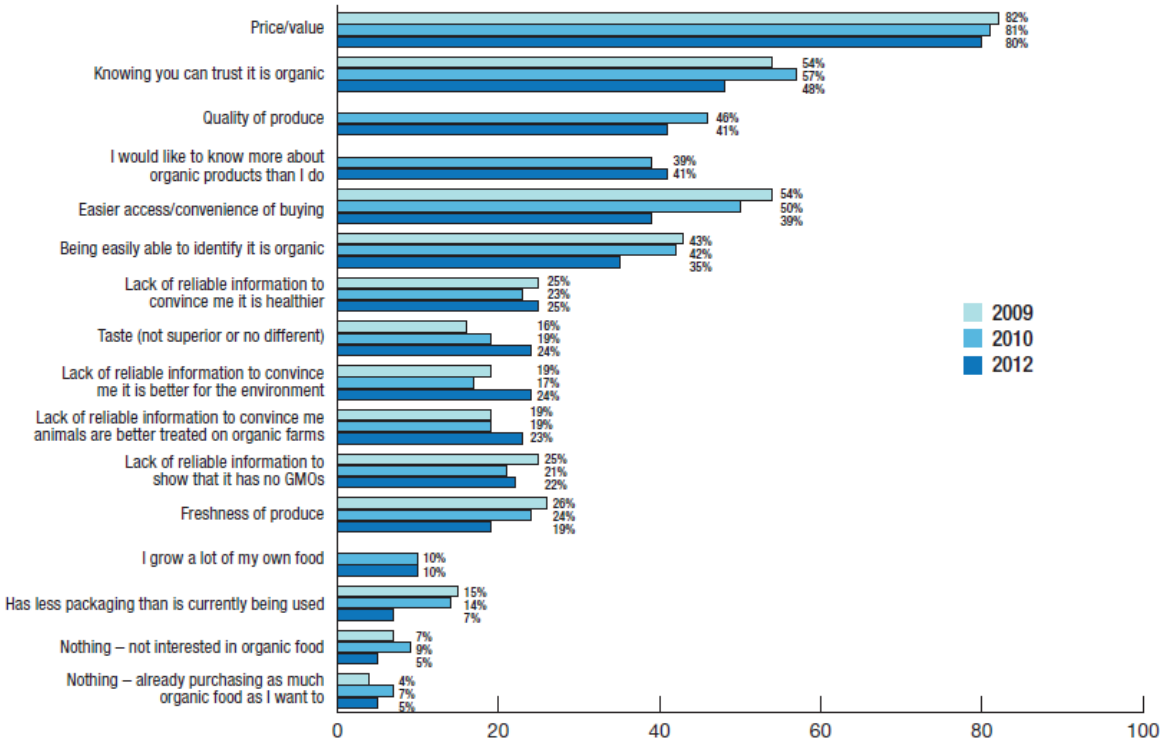


Figure 44 Organics: barriers to purchase

Where do consumers buy organics?

Supermarkets are the dominant channel for most shoppers who purchase organic products. Approximately three in four purchasers frequent a supermarket at some time to buy organic products.

There is evidence of multi-channel participation by many current organic purchasers, where product type influences shopping dynamics. For example, an organic shopper may buy organic fresh fruit and vegetables from a greengrocer, bread from a bakery and other categories from the supermarket.

In general the Leaders are much less likely to shop in major supermarkets in most categories, in particular 'fresh' product segments – they over-index in buying from organic and wholefood stores and other specialty formats, markets and online/direct.

The Leaning and Learners are much more likely to purchase the majority of their organics from a major supermarket.

3. PHASE 2 SELECTION OF NEW GROWERS AND COLLABORATORS

This phase was put back by three months due to delays with partner Woolworths in establishing meetings with selected suppliers, some management changes, and the persistent challenges of expanding the base of new collaborators and suppliers in the organic supply chain. These persistent challenges led, through a series of three meetings (two in Sydney WWs HQ and one in field in Victoria) with key Woolworths managers and buyers as well as with collaborating larger suppliers to Woolworths, to a reorientation of approaching operators who had access to additional (non certified organic) lands, but may have already been supplying Woolworths with some organic produce (or with tangible plans to do so in 2013/14 onwards).

At Woolworths own admission it has remained a great challenge to encourage and achieve new conversions of producers to supply certified organic product to them. The reasons cited for this are included in the next section of this report. Given these market frustrations Woolworths themselves, and it would appear the other major retailers, have given to working more closely with existing certified organic operators who have capacity to significantly expand the production volumes in the year ahead.

This expansion in some cases is where the operator has multiple land holdings, with currently only one or two “trial” farm units under certification. Their experience and trial and error management of the initial farm unit has enabled them to limit and manage the risks inherent in changing production systems (even if only for the same crop type) while also giving time to their workers and managers on-ground to learn and trial new organic production techniques. Two producers in particular have reported that it has taken them some five or more years of trialling new techniques and production systems (for the same crops they have produced for years) for them to feel comfortable to now expand their operations further and take on more land for certified organic production.

Notwithstanding the challenges of finding new lands for certification and new producers to enter the industry to expand production, “technical issues” and field trial discussion, farm visits and discussions occurred across four states (Tasmania, Victoria, Queensland and WA) with seven separate producers where interest had been expressed in obtaining greater knowledge of organic production methods as well as market demand, and an interest in expanding production in organic. Only two of these operations at this point are now progressing to the next level of application for certification. The operations expressing interest were for vegetable production (lettuces, tomatoes, beans and corn), and fruit (pip and stone fruit and strawberries).

These producers were selected either on the basis of direct suggestion and relationship already with Woolworths supply for conventional produce, or via referrals from the marketplace either from wholesalers or other producers. All producers wished for these one-on-one or field trial workshop visits to remain confidential, without their identities revealed.

In terms of expansion of volume supply, six separate producers were also visited (either in group/workshop form or one-on-one) who already have some portion of their farming land with an organic certification level across three states and five separate growing regions. They are now collaborating more closely with Woolworths to being in additional production and in two cases additional certified areas of land.

Again these producers wish to remain anonymous in terms of their direct supply activities with Woolworths, due to market sensitivities with their existing other wholesaler trade. This has been further exacerbated by Woolworths drive more recently to deal directly with as many producers as possible, cutting out middleman wholesalers where feasible to further reduce costs to the end consumer. While many producers may stand to benefit from this move in relation to pricing in the short term, some producers remain wary and reticent in relation to these changes as to their medium to longer term exposure to one main client.

It is clear that until further volumes are achieved via some of the larger existing producers in the supply chain that further grower number expansion will remain limited. This is a direct (if regrettable) admission and recognition of Woolworths buyers and managers themselves. For those already in the supply chain under certified organic arrangements this is not necessarily a negative thing, and as long as some of these operators significantly expand their production in the year ahead at least some of the short term concerns with gaps in supply will be mitigated. It

will not however resolve the medium to longer term projected demand needs of the bigger retailers and further work is essential in this area to being other producers on line. Given the longer lead times for non organic operators (up to three years from first change of farm practices to organic) this is going to further lengthen the time lag for production volumes to meet projected product demand.

While it has been suggested by some (conventional agronomists and others) that it should be relatively easy and most logical that existing producers of product X (be that broccoli, tomatoes, etc.) move directly into organic production, it is not so evident on the ground that this may best be the case. One producer in particular, now having produced organically for over five years, made a particular point that it has taken them this long to "get" the technical and agronomic (as well as entomological) issues at ground level on their farm with their switch from non organic to organic practices. Their point, made more informally by other producers over this past year, is that it may well be easier in the shorter term to have producers who do have existing organic experience to expand further their own operations, or at the least be working with, and assisting, producers moving into, this market sector.

Clearly in the interests of longer term practice change within the horticulture sector there is a critical need to bridge this skills gap, that cannot be achieved via a short term expansion in field trials with a small number of producers. With this in mind, focus was put towards a (Woolworths) selected number of producers already within the supply chain who were best placed to expand their own capacity for supply with organic produce, including new produce lines not supplied by them previously.

4. PHASE 3 IN-FIELD WORK AND SUPPLY CHAIN TRACKING

4.1 In-Field Work

In-field one-on-one meetings were conducted between July and November 2013 with producers, Woolworths buyers and managers and in one case a Woolworth's in-field agronomist. The series of three meetings involving Woolworths in particular has now ensured clarity of certification requirements for conversion or expansion of certification in non-organic production units, enabling Woolworths in future to be working directly with producers wishing to enter into the certified organic supply chain.

Each meeting involved the outline of future growth prospects as detailed by the Woolworths gaps in supply document along with other market information detailed in the Australian Organic Market Report 2012, and technical issues of relevance to producers involved in this market.

A total of eight separate in field meetings occurred with producers in SE Queensland, Northern Tasmania, Northern Victoria, Northern NSW and the MIA (Murrumbidgee Irrigation Area) of NSW. As noted previously none of these producers wish to be identified due to market sensitivities. The majority of these were one-on-one meetings, noted by Woolworths (and producers) as the most effective means of securing collaboration, while also focusing the field work on the specific interests and needs of the producer/s in question.

Key production planning activities discussed, and related expansion of production plans aligning with gaps in supply included particular attention to: broccoli; cauliflower; beans; ginger; onion; capsicums; cucumbers; tomatoes. Fruit lines covered included stone fruit and grapes.

Apple production was not covered in this project and is an area of significant future demand for the industry, including resolution of Controlled Atmosphere storage techniques compliant to organic standards requirements (noting the comments in the following section about the drop in sales volumes towards the end of the calendar year).

The following section addresses the reports from Woolworths in relation to volume supply in this report, reflecting in-field changes enacted by six producer suppliers to Woolworths in 2013.

A major focus required in 2014 will be the replacement of key brassica lines. As reported elsewhere in this document Woolworths have noted a slide in broccoli and cauliflower in particular. This is largely due to the exit from these lines by one major producer in Tasmania (who has focused his efforts on root crops and significantly expanded supply there instead). This major window remains unfilled in large measure even with a number of reasonable volume producers in this domain.

The challenge for this crop, as reported in the last report, remains an appropriate pricing issue whereby producers will take on the risk of organic production. At a "premium" of some 20% for these two crop lines it is unlikely more producers will take on these lines, nor existing producers expand production. Similarly it is unrealistic to think that significant expansion of retail demand via the likes of Woolworths will occur while broccoli prices in particular remain above $10/kg (meaning an average farm gate price of over $4-5/kg). The answer is likely to fall somewhere in between these price ranges. At this point in time there remain no producers making commitment to expansion of production of brassica lines as certified organic, and this remains a critical challenge for the industry for supply of what is now viewed as a staple.

Also discussed during these in-field meetings included producer concern about being known to supply directly to big retail – for fear of loss of their traditional wholesale markets. This dampens their ability to create or maintain diversified market options – or forces some of them to make specific choices about buyer loyalties – with consequent product volume demand implications.

The larger barrier by some (of the mostly larger) producers remains being wary that their "risk premium" for producing organic on some lines is well above the prices consumers have suggested that they are willing to pay. Some other organic lines (i.e. not limited to broccoli) are simply on average well above (i.e. cost far more to produce, when averaged out over a number of seasons) this "premium" per tonne – which creates a vicious circle of some producers not willing to expand.

When comparing carrot production which is now arguably "solved" in terms of market supply, the end retail premium remains significant with between 50% and 100% mark up on conventional or non organic carrots. Nonetheless the consistent presence of organic carrots on the supermarket shelves delivers both the retail buyer as well as consumer confidence, and this remains therefore one of the more successful items of produce sale within the Woolworths organic "Macro" brand range.

This approach, of "competitive collaboration" between a number of growers (in the case of carrots there are between four and six producers involved in regular annual supply to Woolworths) has resolved this market gap impasse, even with the higher regular premiums associated with this produce type. Organic potato supply, as reported in the 2011/12 organic supply chain report (HAL Project HG 10054, 2012) has similarly now been resolved. This is yet to be achieved with the likes of broccoli and other similar staples.

A major shift since the pilot report was conducted in 2011/12 has been a shift where some multiple retailers are going directly to the grower for supply. The upside of this may be potential higher prices for producers (with elimination of the middleman) however it is also likely that in the short term there will be a lag delay in supply as relationships are established, and a level of trust and "proof" in the demand and "trust" between supplier and retailer (that otherwise already exists between some wholesaler to growers).

Such developments will only occur following successful examples in the marketplace for other growers to emulate. These examples are still quite limited for this fragile, fractious and still emerging industry. Those who have achieved this are now reaping the benefits – defined "risk premium" prices being achieved for their produce, lifting them out of the "commodity game" of undifferentiated product supply. Such examples are also showing how demand has in turn then risen – where there is consistency of supply and therefore confidence from the buyers that can range and sell such produce over a defined and agreed period of time.

There is no doubt that wholesalers can add considerable value via their roles as arbiters, production planners, and as a means of producers diversifying their own risks in the face of patchy demand for organic horticultural products in Australia (and for export). Nonetheless there have also been cases of higher prices at retail level (in turn dampening consumer demand) arguably based on additional costs in the supply chain by handlers or wholesalers where this value has been harder to justify. This has been the case in some of the "commodity" crops or where volumes have grown significantly, in turn changing the market dynamics – and enabling direct supply to be more realistic – and beneficial – for the producers in question.

A second major shift in the supply chains in comparison to 2011 has been the commitment by Woolworths to resource in-field agronomists. This creates a significant opportunity for future information flow, driven by the market, in what to date has been a specialised domain of the few. Production specific issues (sector, region and crop specific) will remain challenging to have a "recipe" for organic production, hence there will be a need to link producers with other like producers to ensure appropriate and practical information and technical know-how is passed on through time in what is a very specialised production system supply chain. Having dedicated in-field agronomists like Woolworths now has will go a significant way towards assisting with bridging this skills gap.

Future (Woolworths agronomist and grower) meetings will help ensure that the relevant technical (including organic standards and certification) information is being provided to aspiring new suppliers, while providing opportunity for discussion of gaps in the market, to match supply with demand.

Grower-on-grower meetings (i.e. not just advice from technical agronomists or buyers saying there is demand for product) will be critical for the organic industry over the coming years if supply capacity is to jump significantly out of the currently niche levels that have been the hallmark of the organic industry now for more than two decades in Australia.

Ongoing work in-field both by retail buyers and their agronomist support staff, as well as ongoing collaboration, where feasible and relevant between similar product line producers, will be critical to the medium to longer term success of growing production volumes to meet the market demand.

4.2 Supply Chain Tracking

Several discussions with Woolworths fresh produce and organic produce personnel have produced the following Woolworths profile of the organic horticulture supply chain:

4.2.1 Key Impediments to organic industry growth:

- The volatile pricing which is not sustainable for growth in Organic category. There is a need for consistent pricing so that organic produce is affordable for all customers.
- Supply shortages with minimal communication to highlight these shortages in the market. This leads to inconsistent supply in store and customers not being able to purchase organic produce week in week out.
- Supply shortages.
- Confusion from customers around different organic certification bodies.
- The length of the In-conversion period and a lack of customer awareness about the process and time to achieve organic certification.

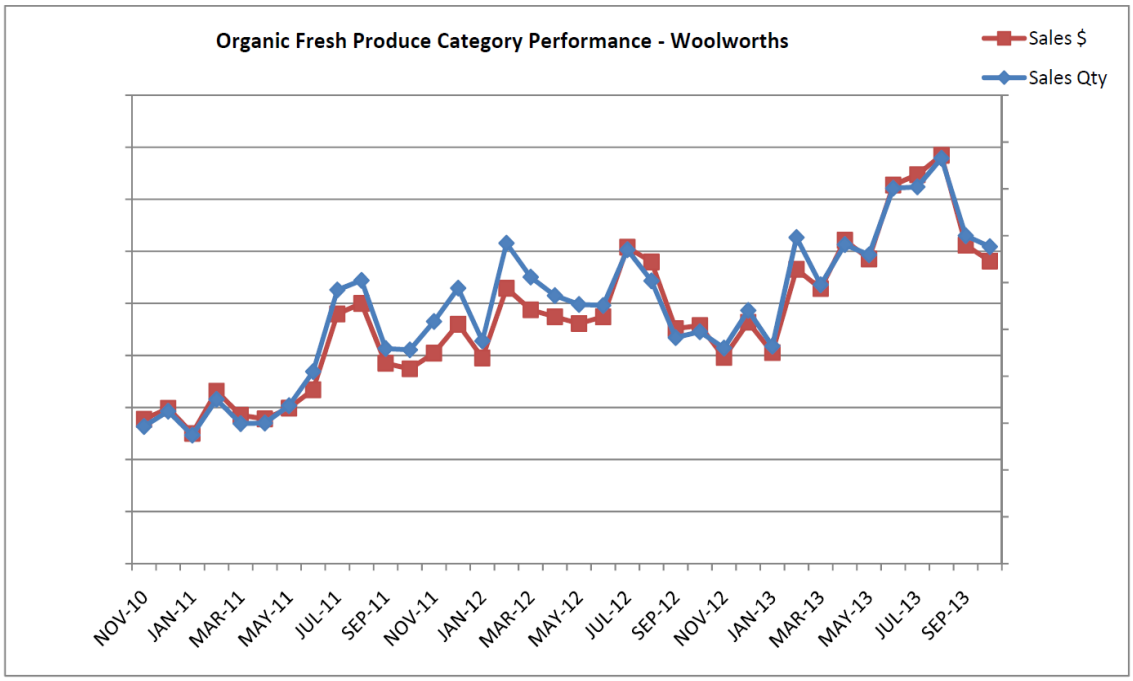
4.2.2 Why does Woolworths see such a strong future for the organic industry?

- Offering customer's choice. Customers are telling us they want more organic produce.
- The Macro brand is the fastest growing brand in Woolworths supermarkets which tells us that consumers want organic and it is becoming their first choice.

4.2.3 What does Woolworths see as the key produce growth opportunities?

Bananas	Lettuce
Tomatoes	Red Capsicums
Strawberries	Onions
Blueberries	Cucumbers
Berries	Zucchinis
Avocados	Corn
Potatoes	Apples
Carrots	Stone fruit
Broccoli	Cherries
Mushrooms	Kiwifruit
Melons	

4.2.4 Woolworths Organic Sales Value and Volume – 2010 – 2013 – Bi-monthly



Observations from this sales value and volume table include:

- There is an annual decline in the July to September period brought about by shortages in the supply of Avocados, Broccoli and Mushrooms. Apple supply also starts to decline during this period each year
- The annual growth in the January to July period has reached a higher peak each year because Cherries, Stone Fruit, Grapes, Blueberries and Apples all contribute to the strong starts to each year.
- The November 2012 to January 2013 period had sales fall below the trend line because Apple supply finished for the season leaving a large sales gap. This highlights how vulnerable the entire organic horticulture category is to shortages of major produce lines.

4.2.5 Supply Chain Opportunities

The two tables that follow identify the Woolworths organic horticulture supply chain opportunities, the first for 2011 and the second for 2013.

The key differences between these two years are:

- Broccoli, carrots, celery, garlic, ginger, onions, potatoes, pumpkin and zucchini are shown as having adequate supply all year but with the increased sales trends these could come into short supply, especially with broccoli, garlic, ginger, onions.
- Berries and tomatoes are two key product groups which offer great opportunities and the key barriers are their difficulty to grow. Currently on average Woolworths fill 63% of their store demand leaving 37% of upside. Woolworths believe that the size of the market could be much bigger then it currently is.
- Cucumber in the 2011 “Supply Gap Map” showed supply gaps from November to March but is now shown as a supply opportunity for all months because demand has outstripped supply and supply has actually reduced.

- Cauliflower in the 2011 “Supply Gap Map” showed supply gaps from April to October but is now shown as a supply opportunity for all months because demand has outstripped supply and supply has actually reduced.
- Capsicum (red and green) in the 2011 “Supply Gap Map” showed supply gaps from November to February. It is now shown as a supply opportunity for all months because demand has grown and Woolworths have difficulty securing supply of Red capsicum.

Woolworths 2011 Reported Supply Opportunities

Calender Gap - ORGANICS

Product	Size	OM	January	February	March	April	May	June	July	August	September	October	November	December
Org Pears Williams	1kg	8	■	■	■	■	■	■	■	■	■	■	■	■
Org Pears Bosc	1kg	8	■	■	■	■	■	■	■	■	■	■	■	■
Org Asparagus	180g	10	■	■	■	■	■	■	■	■	■	■	■	■
Org Broccoli Tagged	Loose	6kg	■	■	■	■	■						■	■
Org Beans Round	250g	12	■	■	■	■	■	■	■	■	■	■	■	■
Org Celery Whole	Loose	10	■	■	■	■	■	■	■	■	■	■	■	■
Org Cauliflowers	1/2	10				■	■	■	■	■	■	■		
Org Corn Sweet	400g	12	■	■	■	■	■						■	■
Org Kiwifruit	6pk	12	■	■	■	■							■	■
Org Mushroom Cups	150g	6	■	■	■	■	■	■	■	■	■	■	■	■
Org Mandarins	1kg	12	■	■	■	■	■						■	■
Org Snowpeas	125g	10	■	■	■	■	■	■	■	■	■	■	■	■
Org Pumpkin Butternut	R/W	12					■	■	■	■	■	■		
Org Pumpkin Jarrahdale	R/W	12					■	■	■	■	■	■		
Org Tomato Gourmet	750g	8	■	■	■	■	■	■	■	■	■	■	■	■
Org Onions Pickling	500g	8	■	■	■	■	■	■	■	■	■	■	■	■
Org Strawberries	250g	12	■	■									■	■
Org Capsicum Green	3pk	6	■	■									■	■
Org Capsicum Red	3pk	6	■	■									■	■
Org Cucumber	tba	6	■	■	■								■	■
Org Lettuce Cos	tba	6	■	■	■								■	■
Org Tomato Gourmet	750g	12	■	■	■	■	■	■	■	■	■	■	■	■
Org Tomato Cherry	250g	12	■	■	■	■	■	■	■	■	■	■	■	■
Org Tomato Roma	500g	12	■	■	■	■	■	■	■	■	■	■	■	■

■ Supply Opportunities

Woolworths 2013 Supply Opportunities

Woolworths Organic Supply Gap Map												
Commodity	January	February	March	April	May	June	July	August	September	October	November	December
Apples	■	■									■	■
Apricot												
Asian Vegetables Leaf	■	■	■	■	■	■	■	■	■	■	■	■
Asparagus	■	■	■	■	■	■	■	■	■			■
Avocados												
Bananas Cavendish												
Beetroot												
Bluberries/Raspberries	■				■	■	■	■	■	■	■	■
Broccoli												
Broccolini	■	■	■	■	■	■	■	■	■	■	■	■
Brussels Sprouts	■	■	■	■	■	■	■	■	■	■	■	■
Cabbage	■	■	■	■	■	■	■	■	■	■	■	■
Capsicums	■	■	■	■	■	■	■	■	■	■	■	■
Carrots												
Cauliflowers	■	■	■	■	■	■	■	■	■	■	■	■
Celery												
Cherries	■	■									■	■
Chillies	■	■	■	■	■	■	■	■	■	■	■	■
Corn	■	■	■	■	■	■	■	■	■	■	■	■
Cucumbers	■	■	■	■	■	■	■	■	■	■	■	■
Eggplant	■	■	■	■	■	■	■	■	■	■	■	■
Garlic												
Ginger												
Grapefruit/Lemon/Lime	■	■	■	■	■	■	■	■	■	■	■	■
Grapes												
Herbs	■	■	■	■	■	■	■	■	■	■	■	■
Kale	■	■	■	■	■	■	■	■	■	■	■	■
Kiwi Fruit	■	■	■	■								
Leek	■	■	■	■	■	■	■	■	■	■	■	■
Lettuce	■	■	■	■	■	■	■	■	■	■	■	■
Mandarins	■	■	■	■	■	■	■	■	■	■	■	■
Mangoes	■	■	■	■	■	■	■	■	■	■	■	■
Mushrooms	■	■	■	■	■	■	■	■	■	■	■	■
Nectarines												
Onions												
Oranges												
Parsnip	■	■	■	■	■	■	■	■	■	■	■	■
Peaches												
Pears	■	■	■	■	■	■	■	■	■	■	■	■
Peas / Beans	■	■	■	■	■	■	■	■	■	■	■	■
Pineapple	■	■	■	■	■	■	■	■	■	■	■	■
Plum												
Potatoes												
Pumpkin												
Rockmelon/Honeydew	■	■	■	■	■	■	■	■	■	■	■	■
Silverbeet Bunch	■	■	■	■	■	■	■	■	■	■	■	■
Spring Onion Eschallot	■	■	■	■	■	■	■	■	■	■	■	■
Strawberries	■	■	■	■	■	■	■	■	■	■	■	■
Tomatoes	■	■	■	■	■	■	■	■	■	■	■	■
Zucchini												
■	=	Supply Opportunities										

5. RESULTS, DISCUSSION AND RECOMMENDATIONS

While clear shifts have occurred in the market place (in terms of supply – with demand remaining largely unmet on a consistent basis) between 2011 and 2013, there remain serious and significant impediments to closing the supply gaps for organic horticulture in the short to medium term.

Many producers report being very concerned about being known to supply directly to multiple retailers, for fear of loss of their traditional wholesale markets and/or wholesaler loyalty. This dampens their ability to create or maintain diversified market options – or forces some of them to make specific choices about buyer loyalties – with consequent product volume demand implications.

The larger barrier reported by some (of the mostly larger) producers remains, being wary that their "risk premium" for producing organic on some lines is well above the price premium consumers have suggested that they are willing to pay in the 2010 and 2012 Australian Organic Market Reports Some organic lines are simply on average well above (i.e. cost far more to produce, when averaged out over a number of seasons) this "premium" per tonne, which creates a vicious circle of some producers not willing to expand, choking supply, and in turn dampening buyer enthusiasm and confidence in future supply, in turn sending mixed signals to producers.

In a "normal" market setting this gap in the market would arguably be filled relatively quickly enough by other willing suppliers. The challenge is however bridging both the technical skills gaps that remain evident within the horticultural sector itself (i.e. organic production knowhow), and managing the lead time and risks inherent for primary producers in moving into a new type of production system.

A major shift since the pilot report was conducted in 2011/12 has been where some multiple retailers are going directly to the grower for supply. The upside of this may be potential higher prices for producers (with elimination of the middleman) however it is also likely that in the short term there will be a lag delay in supply as relationships are established, with a level of "proof" in the demand and "trust" between supplier and retailer.

It has also led to some short term serious gaps in the marketplace, such as brassica production and supply with the change in production activities of one prior "anchor" brassica producer. This supply gap is yet to be filled and may take the next two to three years to see change in this domain – either requiring existing brassica producer/s to enter the market, or other existing organic producers to diversify and expand into this section of the market.

Such developments will only occur following successful examples in the marketplace for other growers to emulate. These examples are still quite limited for this fragile, fractious and still emerging industry. Those who have achieved this are now reaping the benefits – defined "risk premium" prices being achieved for their produce, lifting them out of the "commodity game" of undifferentiated product supply. Such examples are also showing how demand has in turn then risen – in cases where there is consistency of supply and therefore confidence from the buyers which can range and sell such produce over a defined and agreed period of time (carrots, potatoes).

There is no doubt that wholesalers can add considerable value via their roles as arbiters, production planners, and as a means of producers diversifying their own risks in the face of patchy demand for organic horticultural products in Australia (and for export). Nonetheless there have also been cases of higher prices at retail level (in turn dampening consumer demand) arguably based on additional costs in the supply chain by handlers or wholesalers where this value has been harder to justify. This has been the case in some of the "commodity" crops or where volumes have grown significantly, in turn changing the market dynamics – and enabling direct supply to be more realistic – and beneficial – for the producers in question.

A second major shift in the supply chains in comparison to 2011 has been the commitment by Woolworths to resource in-field agronomists. This creates a significant opportunity for future information flow, driven by the market, in what to date has been a specialised domain of the

few. Production specific issues (sector, region and crop specific) will remain challenging to have a "recipe" for organic production, hence there will be a need to link producers with other like producers to ensure appropriate and practical information and technical know-how is passed on through time in what is a very specialised production system supply chain.

Future (agronomist and grower) meetings should help establish that the relevant technical (including organic standards and certification) information is being provided to aspiring new suppliers, while providing opportunity for discussion of gaps in the market, to match supply with demand.

Grower-on-grower meetings (i.e. not just advice from technical agronomists or buyers saying there is demand for product) will be critical for the organic industry over the coming years if supply capacity is to jump significantly out of the currently niche levels that have been the hallmark of the organic industry now for more than two decades in Australia.

There is opportunity and sense in pursuing and supporting both these approaches to ensure that there is sufficient technical knowledge, as well as technical guidance from experts in the field across the range of in-demand produce types and related production system types.

The presence of big retail, and their clear demand and commitment to finding supply to meet this demand, offers the opportunity to the organic industry to break what has been a vicious cycle of gaps existing in the supply chain – either due to lack of trusting relationships, mismatch on pricing offers, or simply mismatch of supply times and product types (including quality specifications or lack of consistency of supply).

It is recommended that a stronger focus be placed on grower-to-grower meetings (where expert leading growers from one sector address one or more producers wishing to enter the market) as the more effective means of ensuring information and technical know-how is transferred. The usual challenges of competitive advantage and the interest of the "first movers" will remain – like it does in any emerging industry sector (where there are few innovative players who have struck success, but are wary about passing this information on too widely for fear of the market flooding, in turn leading to a loss of competitive advantage and point of difference).

The organic industry does offer some glimmer of hope in this regard however, as there are some producers, or now ex-producers, willing and interested to pass their knowledge onto new entrants or existing committed organic producers.

The challenge for the industry will be continuing to find efficiencies in the production methods, while still adhering to the organic standards (which can by design add additional production costs – due to crop rotation requirements, limitation of pest and disease control options, weed management costs).

Furthering information flow, and breaking down some of the misperceptions in the producer community about the management risks and the facts versus the myths of what is required within organic production systems at farm level, will ensure more producers have access to the information to make their own informed market choices.

The increased interest and determination of the multiple retailers to obtain organic products is not likely to abate in the short term – and in fact is only likely to abate (or move overseas for alternatives) should supply not be forthcoming in Australia. The fresh produce organic sector has some buffer or protection in this regard into the future due to the restrictions on fumigation and other conventional quarantine methods that are banned for use on imported organic fresh produce. The organic industry nonetheless needs to take big retail demand for organic product seriously if there is to be a viable market offer in such retail formats in the years ahead.

The rest will be up to growers in the supply chain to weigh up the opportunity costs – production risks and the premiums needed by them to cover those risks – and to assess these for their own individual operations.

Clearly the process of ensuring information flow is occurring across the supply chain – from retail through to growers – is critical for growers to make informed decisions. The second critical step will be ensuring there is an ongoing flow of technical information (agronomic and

organic standards and certification related information) to such producers – along with ongoing market demand feedback.

Having producers meet and benchmark their operations with other producers is key here. The example of the Organic Farm Gate marketing "collective" is a very successful case study in growers achieving this. It may be unlikely that many other similar grower groups form like this one – successful as this one has been and is – due to possible grower reticence to be involved in such overt collaborative and committed supply chain relationships.

The alternative is to ensure that individual growers remain exposed to other producers (via on-farm workshops and information forums) to be able to benchmark their production methods, while also remaining directly in touch with market statistics and supply gap information for them to make relevant informed decisions in any given production season ahead.

For this reason future grower forums and workshops, like ones achieved during the in-field research phase of this project, will be critical to the medium to longer term supply hopes for the likes of Woolworths and other retailers attempting to fill the consistent and significant gap between supply and demand for fresh organic horticultural produce.

The four key outcomes from this project were the following:

1) Measurable improvement in demand for producers

The 2013 supply value graph supplied by Woolworths shows consistent growth through 2011 to 2013 of produce supply from producers. Further, reports from Woolworths clearly continue to highlight that supply is regularly some 30%+ less than expected demand (on a status quo basis). Clearly therefore demand has not only improved but strengthened since the 2012 report.

2) Measurable expansion of the industry

There has been documented evidence of expansion of supply by the industry, however this remains primarily from existing operators in industry, with their own capacity in some cases to expand further in the year/s ahead. Expansion of grower numbers remains flat, however some existing producers with single units currently certified have plans in place now to expand operations onto other non-certified organic areas of farmland under their management.

3) Increased collaboration between producers and retailers

Some of the workshops, particularly in Victoria and Queensland, show excellent examples of not only collaboration between producers and retailers, but the forging of new territory where direct supply from producer to retailer is occurring. This is a relatively a new concept for the organic sector and its increase will in time result in a significant increase in volumes supplied and consequent rationalising of pricing along the supply chain. The challenge remains for some produce lines which remain consistently under-supplied.

4) Measurable increase in access to organic produce

The growth graph supplied by Woolworths is incontrovertible evidence of the increase in consumer access to organic produce. The gaps, however, remain very large to bridge the difference between existing or even forward planned supply and known demand from big retail. Work in the coming year/s ahead will be critical and needs to see far more collaboration between retailers and their producers.

6. TECHNOLOGY TRANSFER AND COMMUNICATION

Following completion of this report the findings will be presented to key Woolworths personnel in a meeting at their Sydney headquarters to assist in expanding awareness of the realities facing the production end of the organic industry and the need for ongoing grower support and liaison specific to organic production realities, along with ongoing data update to growers on market demands.

Technology transfer from this project includes a welcome legacy from the commitment from Woolworths towards having their in-field agronomists specifically aware of the organic production realities in field, to in turn share this with other potential future suppliers.

The presence, and now success, of a (albeit still limited) number of key producer suppliers is also arguably the single best technology transfer vehicle. The examples, and future profiling, of these producers (via media with the organisations below) will assist other producers in being able to assess whether organic production techniques are appropriate for their own primary production businesses.

This will be aided by a press release document (included as the Media Summary in this report) to be disseminated to the organic organisations most able to reach primary producers involved already but possibly not aware of growing opportunities to expand or diversify their own production and marketing systems. These organisations include Australian Organic Ltd, NASAA Ltd and the Organic Federation of Australian Ltd.

By mid 2014 there will be communication with AusVeg as well as the Horticulture Task Force group, inviting coverage in their respective industry sector publications, to place this information in the hands of leaders in horticulture. This will assist in disseminating this information and the market opportunities apparent for those producers wishing to consider organic production systems in future to supply the ongoing gap in market demand for this niche market.

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