

Vegetable Industry Development Consumers and Markets Sub Program

Martin Kneebone
Freshlogic Pty Ltd

Project Number: VG09146

VG09146

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Fax: (02) 8295 2399

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Final Report

VG09146 - Vegetable Industry Development Program Consumers & Markets Subprogram

Project completion date 30 June 2012

Prepared by:
Martin Kneebone
Director
Freshlogic

VG09146

Vegetable Industry Development Program Consumers & Markets Subprogram

This project was undertaken by:

Project Leader:

Martin Kneebone

Director, Freshlogic

martin@freshlogic.com.au

03 9818 1588

Assistance from other Freshlogic team members

Steve Spencer (Director)

Sam Mishra (Research Analyst)

Jodie Coulter (Senior Analyst)

Matt Evans (Market Analyst)

Romano Delbeato (Director DBY research & manager of Mealpulse panel)

The **purpose of the project** has been to enhance the provision of consumer and market information to growers and other industry participants engaged in the vegetable value chain and in order to enable better vegetable marketing business decisions.

This project has been funded by HAL using the National Vegetable Levy and matched funds from the Australian Government.

This report is dated 30 June 2012

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Contents

1.0 Summary	2
2.0 Introduction	3
2.1 Overview of the VIDP	3
3.0 Purpose, Method, and Key Activities	6
3.1 Consumer and Markets subprogram strategy	6
3.2 Target audience considerations	7
3.3 Data collection and analysis	8
3.3.1 Data Inputs	9
3.4 Subprogram outputs	11
3.5 Distribution methods	14
4.0 Evaluation	15
4.1 Information user survey	15
5.0 Learnings, Challenges and Recommendations	18
5.1 Key learnings	18
5.2 Key challenges	19
5.3 Opportunities and recommendations	19
6.0 Acknowledgements	20
7.0 Bibliography	20
8.0 Appendices	21
A. Weekly Market Variables	21
B. Monthly Veginsights & Category Profile	24
C. Quarterly Veginsights	32

1.0 Summary

The **purpose of VG09146** Vegetable Industry Development Program Consumers & Markets Subprogram was to enhance the provision of consumer and market information for vegetable growers and other industry participants engaged in the vegetable value chain.

The **primary objectives of the subprogram** were to:

- Inform vegetable growers how the vegetable markets work and the nature of the major impacts that influence commercial returns.
- Package market information outputs so they can be understood and used by growers and their supporting stakeholders.
- Demystify the gaps in vegetable market information so that growers can see that they can use market information to their advantage.

The project completed the following **key activities**:

- Developed a series of vegetable market data inputs that can be accessed on a regular basis.
- Built an analysis capacity to combine and reconcile market data inputs and to track vegetable market characteristics and performance.
- Developed a series of market information outputs that convey market settings, trends and conditions, and vegetable category level profiles, which can be understood and used by vegetable growers.
- Used feedback from market information users to validate relevance and continue to improve the outputs provided.
- Disseminated the program outputs through AUSVEG in all available communication formats and means.
- Supported effective integration between the various subprograms of the VIDP.

The **key outcomes** from the subprogram were the provision of significantly enhanced market information. As a result of this, growers and their supporting trading partners and vegetable market participants have better access to more accurate market information for business decision-making.

2.0 Introduction

This project was undertaken to improve access to higher quality, commercially valid vegetable market information.

At its commencement, it was clear that the project would fill a substantial gap. The most recent study on information uses and needs of growers in 2008 – prior to the development of the VIDP – showed that marketing was rated by growers as the most substantial information gap and clearly a leading research and development priority. This chart on the right (see Figure 1) is drawn from data collected in the needs analysis drawn from the Vegetable Industry Information Dissemination Stakeholder Research, Concept Consulting completed in August 2008.

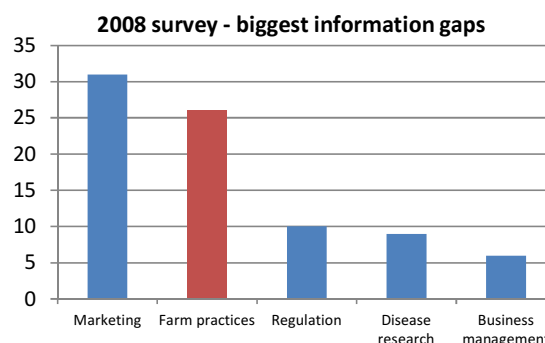


Figure 1 2008 survey - biggest information gaps

This widely acknowledged information gap was compounded by the prevailing industry practices that discouraged a consolidated approach to market information. The drivers of this unwillingness to consolidate information were based on views that other growers are competitors in the market and low levels of experience by growers using information for their commercial advantage. These influences were more directly reflected in:

- Grower expectations that market information should deliver turnaround solutions that increased returns regardless of other impacts.
- Viewing other growers as competitors and therefore, creating a resistance to a shared and informed view of servicing the market.
- Low levels of experience using market information as a way of doing business that integrates into most business decisions.

These influences framed a requirement to win support for better quality market information, as well as provide it in forms that those with less experience could understand and use.

At the commencement of the project, there was no single source of total vegetable market information that could be readily accessed by vegetable growers.

2.1 Overview of the VIDP

This final report focuses on the role and activities of the Consumers & Markets subprogram of the Vegetable Industry Development Program (VIDP). However, it is important to understand that each individual subprogram and activities occurring collaboratively between subprograms made a contribution to achieving the broader VIDP goal and objectives.

Program goals and objectives

The Vegetable Industry Development Program (VIDP) goal was “to provide knowledge, tools and insights to decision makers to improve the competitiveness of Australian vegetable growers in domestic and international markets”.

This was achieved by addressing a number of program objectives, as follows:

- Program Objective 1: “A new generation of leaders are active in the industry”
- Program Objective 2: “Decision making in the industry is increasingly market driven”

- Program Objective 3: “Industry is more informed and understands the benefits and the qualities of Australian vegetable products, so as to optimise their path to market”
- Program Objective 4: “More growers are actively seeking to evolve their business models to meet new challenges posed by the market”
- Program Objective 5: “Findings and outputs from research are increasingly being applied by industry stakeholders in decision making”
- Program Objective 6: “Industry is effectively using findings and outputs from research to formulate policy and manage the image of the industry”
- Program Objective 7: “Levy payers are better able to provide feedback into the National R&D system”.

Program structure

To achieve the goal and objectives, a structure involving a number of subprograms, along with a National Coordination role was utilised. Participating subprograms are detailed in Table 1 below.

Table 1 - Vegetable Industry Development Program Subprograms

Project number	Project title	Organisation	Subprogram leader
VG08040	Economic Research Services for the Vegetable Industry	Industry Data Economic Analysis	Ian James
VG09144	Vegetable Industry Development program – National Program Coordination	Rural Directions Pty Ltd	David Heinjus
VG 09145	Vegetable Industry Development Program People Development Subprogram	Dianne Fullelove and Associates Pty Ltd	Dianne Fullelove
VG09146	Vegetable Industry Development Program Consumers and Markets Subprogram	Freshlogic Pty Ltd	Martin Kneebone
VG09147	Vegetable Industry Development Program Knowledge Management Subprogram	Freshlogic Pty Ltd	Steve Spencer
VG09149	InnoVeg Local Partnership Program- Coordinating Collaborative and Innovative Industry Development Products	RMCG	Dr Anne-Maree Boland
VG10117	InnoVeg – Tier 2 development products for delivery to the	RMCG	Dr Anne-Maree

Project number	Project title	Organisation	Subprogram leader
	Vegetable Industry		Boland
VG09161	AUSVEG Support to Vegetable Industry development Knowledge Management Subprogram	AUSVEG Ltd	Richard Mulcahy
VG09191	National Vegetable IPM Coordinator	Schofield Robinson Horticultural Services	Lauren Thompson

In addition to the above subprograms, there was a project titled “Collaborative Industry Organisations Support to VIDP” established. This was managed by Vegetables Program Manager Horticulture Australia Limited, Kathryn Lee, and delivered by the organisations detailed in table 2 below.

Table 2 - Organisations delivering the Collaborative Industry Organisations Support to VIDP

Project number	Project title	Organisation	Subprogram leader
VG10096	Collaborative Industry Organisations	Horticulture Australia Limited	Kathryn Lee
VG10097	Collaborative Industry Organisations – Queensland - Support to VIDP	Growcom	Margie Milgate
VG 10098	Collaborative Industry Organisations – New South Wales - Support to VIDP	NSW Farmers Association	Dr Alison Anderson Alicia Harrison
VG10099	Collaborative Industry Organisations – Victoria - Support to VIDP	Vegetable Growers Association of Victoria	Tony Imeson
VG10100	Collaborative Industry Organisations – Tasmania - Support to VIDP	Tasmanian Farmers and Graziers Association	Nick Steel
VG10101	Collaborative Industry Organisations – South Australia - Support to VIDP	Virginia Horticulture Centre Inc	Mike Redmond
VG10102	Collaborative Industry Organisations – Western Australia -Support to VIDP	Vegetable Growers Association of WA Inc	John Shannon

The role of the Collaborative Industry Organisations Support project was to provide a conduit for outputs from each of the VIDP subprograms. Working with the InnoVeg subprogram, the Collaborative Industry Organisations provided a delivery mechanism to the industry for VIDP.

The remainder of this final report focusses specifically on the project VG09146, delivered by Freshlogic.

3.0 Purpose, Method, and Key Activities

The **purpose of the project** has been to enhance the provision of consumer and market information for vegetable growers and other industry participants engaged in the vegetable value chain.

The **primary objectives of the subprogram** were:

- Inform vegetable growers how the vegetable markets work and the nature of the major impacts that influence commercial returns.
- Package market information outputs so they can be understood and used by growers and their supporting stakeholders.
- Demystify the gaps in vegetable market information so that growers can see that they can use market information to their advantage.

The **key activities** have been to:

- Develop a series of vegetable market data inputs that can be accessed on a regular basis.
- Build an analysis capacity to combine and reconcile market data inputs and to track vegetable market performance.
- Develop a series of market information outputs that will convey market settings, trends, and conditions and will be understood by vegetable growers.
- Use feedback from market information users to validate relevance and continue to improve the outputs provided.
- Disseminate the outputs through Ausveg in all available communication forms.
- Ensuring effective integration between the various sub-programs of the VIDP.

The **key outcomes** from the subprogram are the provision of enhanced market information. This will ensure that growers and supporting participants have better access to more accurate market information for business decision-making.

3.1 Consumer and Markets subprogram strategy

The subprogram strategy was framed by consideration for the dynamics of the vegetable industry and how they provide settings for collection and use of market and consumer information. These dynamics and the flow on project implications were defined as:

- There are a number of **changes with consumers and households** that have impacted how consumers purchase and consume food. Some categories of vegetables have been successful in understanding and capturing greater value by meeting the needs associated with these changes.

However, many other vegetable categories continue to operate in commodity conditions. As a result, some of those involved with vegetables will require quite different information to others, and this variation has to be accommodated to ensure relevance and uptake.

- Some enterprises in the vegetable supply chains **hold unique information and use this position to their commercial advantage**. These informed stakeholders are defensive about sharing data and will need a clear view of the tangible commercial advantages they will capture before they commit to sharing data. Convincing these stakeholders to **share data** can unlock a wealth of supply chain information.
- Despite some enterprises and producers understanding their own category, the **domestic vegetable market operates with low visibility of the total vegetable volume and value growth**. Furthermore, consumer expenditure on food moves between retail and food service and is highly influenced by available discretionary dollars. The extent of this movement, which affects the volume and value of vegetables sold through each distribution channel, warranted mapping in order to effectively track total market growth and category share.
- Large retailers, with approximately 60% market share of Fresh Fruit and Vegetables and retail scanning systems are a **leading source of data on consumer demand**. However, while the supermarkets satisfy much of what consumers are seeking, they are influenced by operational considerations that can limit product range and balance shelf-life considerations. In some respects, these signals do not completely reflect all that consumers are seeking. Therefore, there is a need to gather consumption data and insights drawn from sales outside the supermarkets. This information would then provide a **fuller profile of consumer needs** and with that, the basis to identify where value can be added.
- Despite the retail price of vegetables being comparatively low at \$3.50-4.00 per kg, it has been **difficult to convey to consumers the “value” vegetables provide**. This is due to the dynamics of supply, wholesale price setting and the prevailing retail promotional tactics. These variables combine to provide a wide ranging retail price base to consumers and drive competition within the vegetable category, rather than a stable value base between vegetables. In vegetable categories where this pricing has been stabilised, stronger category value growth has been achieved, such as the prepacked range of tomatoes or the complete mushroom offer. These positive examples are a key platform for **convincing vegetable stakeholders that they can benefit from a more informed approach that provides supply and price stability**.

3.2 Target audience considerations

The target audiences for the proposed outputs of C&M subprogram are detailed in Table 3 below.

Table 3 - Target audiences for the proposed outputs of C&M subprogram

Audience	Profile and information use considerations
Vegetable growers	This group includes vegetable producers of all types and sizes. Some growers are experienced users of market information and understand what they need and how it can

	<p>be used. Others are at the early stages of using market information and needed guidance on use as well as the market data.</p>
<p>Grower supply chain trading partners</p>	<p>This group includes the wholesaler/aggregator and in some cases, the retailer. This group are not always the gatekeepers to the various distribution channels but they always assert a level of influence.</p> <p>This group are typically more informed and advanced users of information as they operate where the market prices are set.</p>
<p>Vegetable input providers</p>	<p>This group includes the suppliers of inputs to vegetable growers, (IE Seed, Plant protection, and Packaging etc.) This group is involved in businesses that often have more experience at using market information and as such are quicker to see a potential commercial advantage in information use. They are spending more on R&D and are actively seeking to build greater knowledge of how the supply chain past the grower works so they can plan accordingly.</p>
<p>Industry representative organisations</p>	<p>This includes AUSVEG and HAL where market information is used for industry planning and media management. The group are active distributors of market data to their grower stakeholders.</p>
<p>Researchers, developers, and service providers</p>	<p>This group undertakes vegetable industry R&D and provide deliverables at an industry and enterprise levels. Market information is valued by this group as it can provide the basis to quantify and measure R&D delivered gains.</p>

3.3 Data collection and analysis

The design of the Consumers & Markets subprogram is profiled in Figure 2: Consumers and Market Process (see page 11). The various data inputs, including response from the Mealpulse consumer panel participants, flow into the analysis engine of the Vegetable Market Model, where they were processed into a series of reporting outputs. These outputs were then distributed through the pathway of the Knowledge Management systems and AUSVEG communications subprograms.

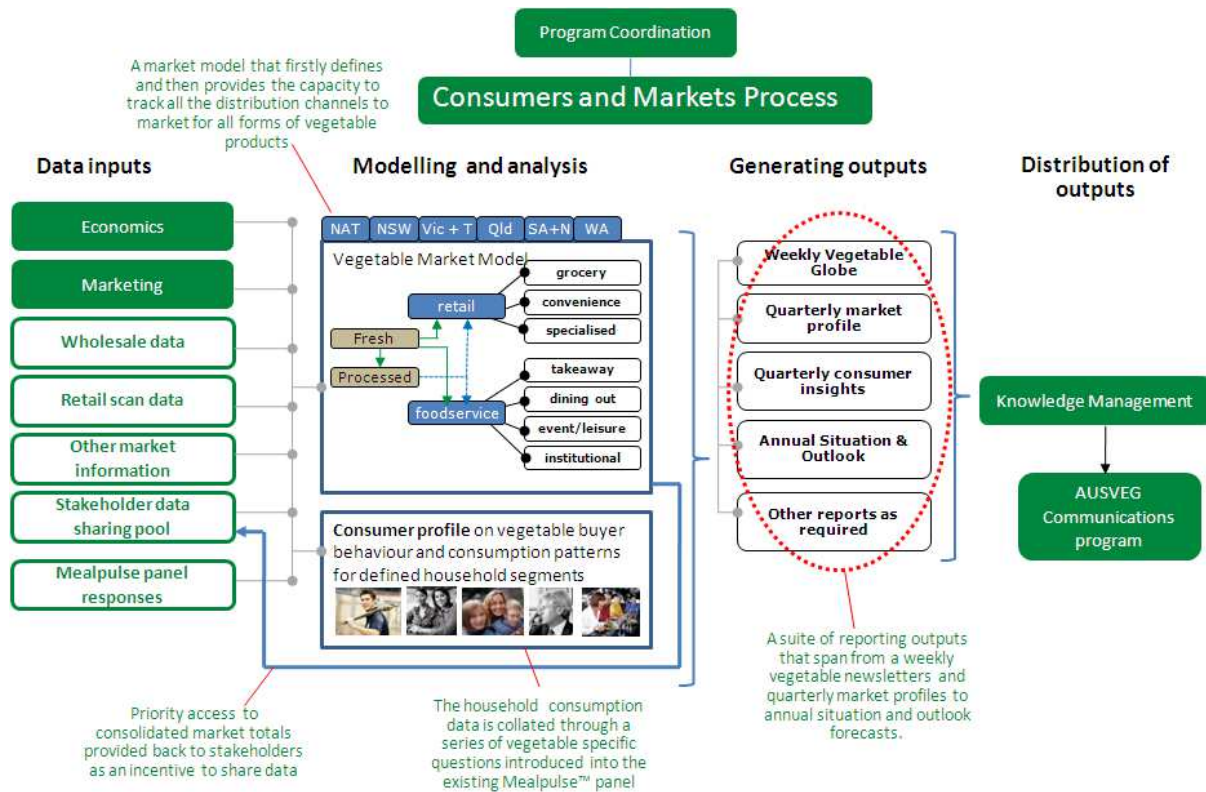


Figure 2 Consumers and Markets Process

3.3.1 Data Inputs

Vegetable Wholesale price data

Wholesale market data is acquired from service providers who track wholesale market activity on a daily basis. This data has been modelled into the category and total vegetable profile and is used in all the Veginsights outputs.

The wholesale vegetable market data reflects returns to growers and is typically also reflected in retail prices. Examples of the use of wholesale data is profiled below in Figure 3 - where the total vegetable wholesale price per kg is calculated and trended over 2010 and 2011 and the category level price is calculated and compared to the previous year. The wholesale data was incorporated into weekly, monthly, and quarterly outputs.

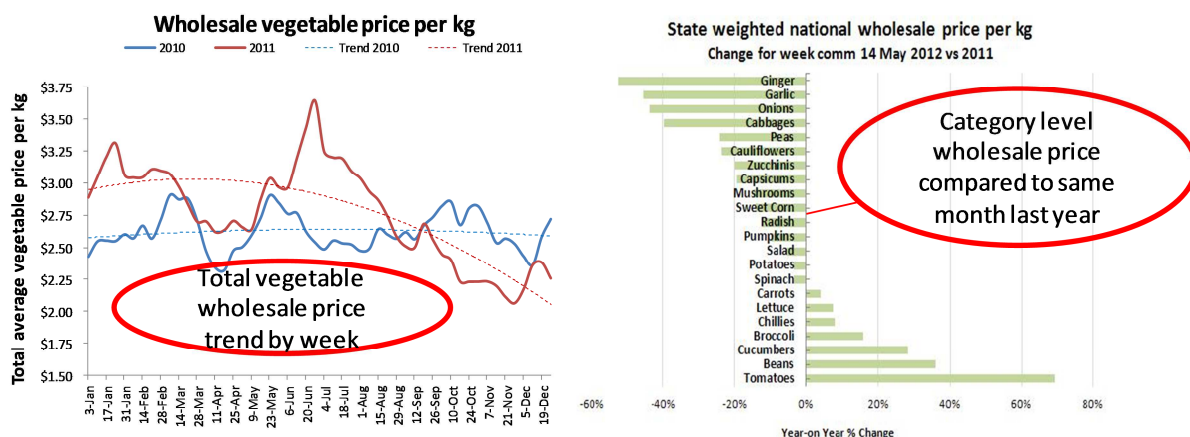


Figure 3 Wholesale vegetable market data - price trend by week and category level

The Mealpulse panel responses

Mealpulse is a dedicated consumer food panel that is operated by Freshlogic. It is designed to capture consumer data that is nationally representative and valid when extended at a state level. Respondents provide data on their attitudes, value, and preferences, and also their actual food shopping behaviour. This provides a unique set of data that enables the profiling of attitudes, values, and aspirations with actual purchase behaviour.

This project was able to draw on the scale of the Mealpulse panel by including a series of vegetable-specific purchasing and consumption questions. When this was combined with other respondent data, it provided a fuller data set and enabled the profiling of vegetable-specific consumption by household segment and state as described in the charts (see Figure 4) below.

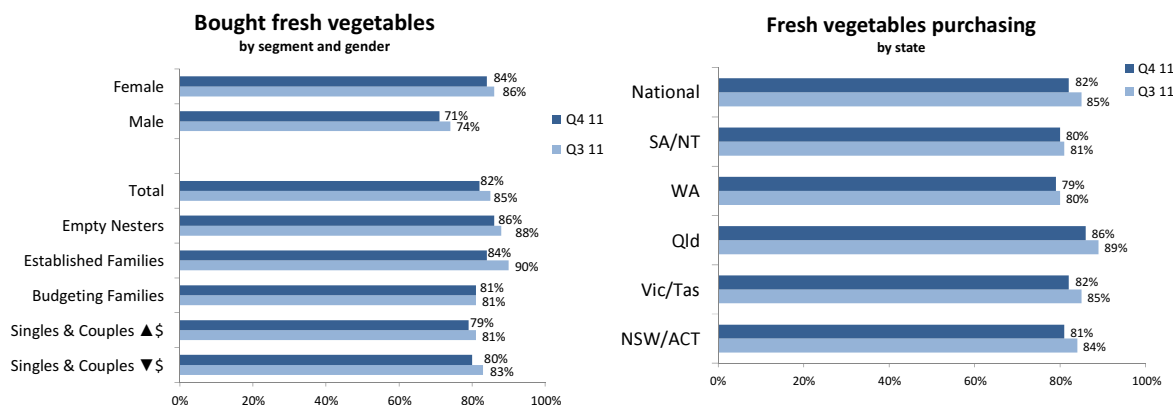


Figure 4 Vegetable specific consumption - by household segment and state

Docketdata

Docketdata is the data input gathered from the Mealpulse panel respondents. It is captured by respondents either posting or scanning and emailing their weekly purchase dockets. The system then uses proprietary software to scan and extract the data from each docket. This transaction level data from all retailers is then available for analysis. The diagram below profiles how the data is extracted.

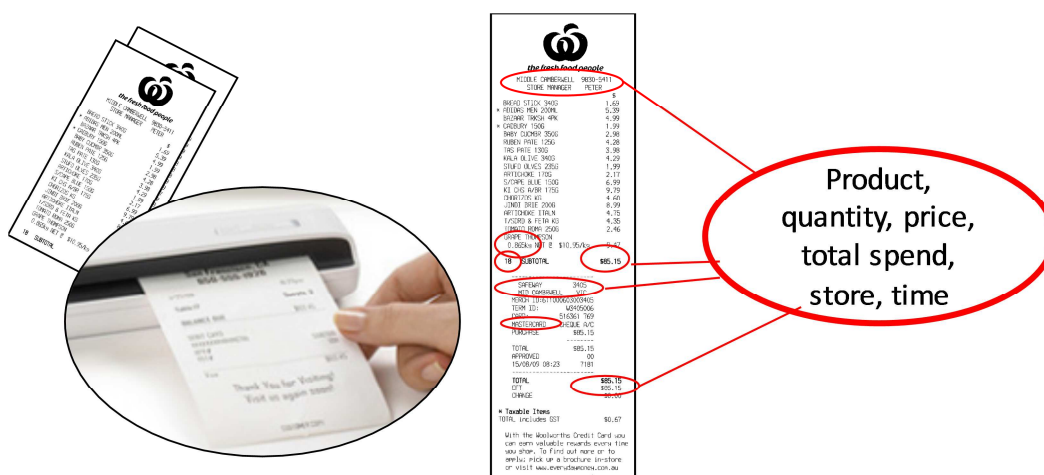


Figure 5 Extraction of docket data

This data was used to understand household consumption. The analysis allowed definition of purchase quantities, retail price, market size, variations between different types of households, the number of shopping trips, and retail market share.

Retailer promotional data

This data was made available from the Adwatch service operated by Freshlogic. This data was deemed relevant as this type of retailer activity can have a marked impact on product sales and can influence market pricing. There is also a relationship between the exposure of the various vegetables forms in this retail promotional activity and the sales they generate. The chart below (Figure 6) profiles the number of canned, frozen, and fresh vegetables that are included in promotional activity on a weekly basis.

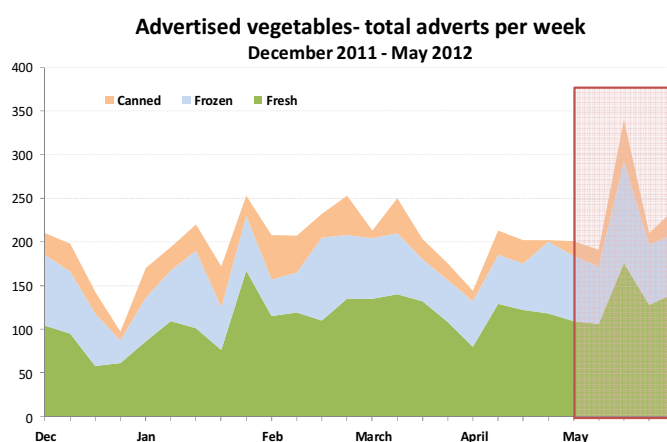


Figure 6 Advertised vegetables - total adverts per week

3.4 Subprogram outputs

The outputs from the project are provided in detail in the appendices. The major components can be summarised as follows:

- Weekly Veginsights, which commenced in November 2010 and was delivered for 52 weeks. At this point, the weekly version was changed into a set of Weekly Market Variables, which have been made available for posting on the AUSVEG website. This output has drawn on wholesale market data and tracking of major retailer promotional activity. The wholesale data was modelled to deliver a weighted national wholesale price per kg and a category level comparison with the previous year as per figure 3. A sample of this output is included in the Appendix A of this report.
- Monthly Veginsights, which commenced in November 2010 and continue through until the completion of the project in June 2012. This output was enhanced when the weekly Veginsights was discontinued to ensure fuller coverage of innovations and events. It also included quantified monthly vegetable sales as shown in the charts of Figure 7 on page 12.

Vegetable category profiles were included as the two last pages on the monthly Veginsights. A sample of this product can be found in Appendix B. The two charts below are extracts from the monthly Veginsights and indicative of the content and concise style of information and analysis provided. They show total vegetable monthly sales for the current month and the six months prior and retail promotional activity for all vegetables for the same period.

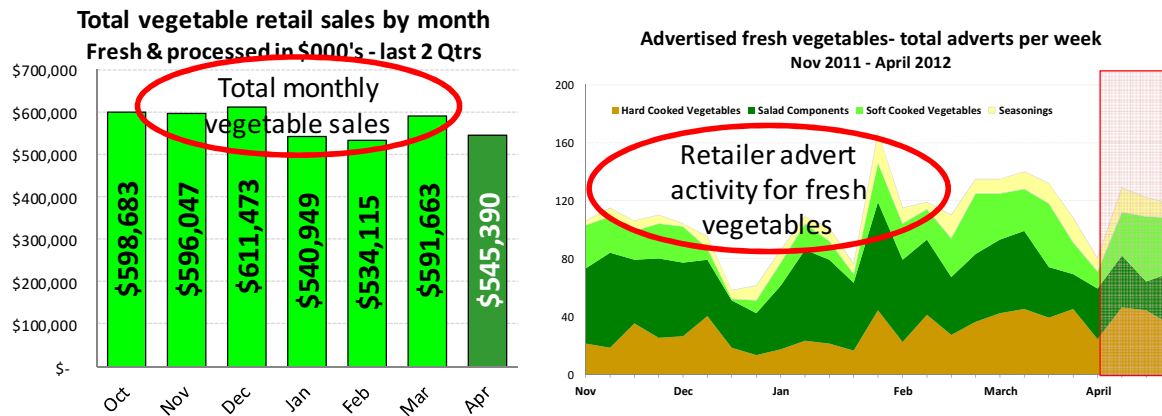


Figure 7 Total monthly vegetable sales and retailer activity for fresh vegetables

Monthly Veginsights evolved to cover and convey global news and events of significance to the vegetable industry. The monthly frequency of the report provided a workable combination of enough news material and demands on reading time. The treatment of news items was enhanced over the period and a sample of the latest version is profiled below. The features of this style anchored around a concise summary, a visual cue that clearly relates to the story and a succinct insight signalled by the introduction “*What it means*”.

Farm to School program tops \$1m

in sales – For the first time in its 15-year history, the North Carolina Department Farm to School Program posted more than \$1.2 million in sales of fresh fruits and vegetables during the 2011-12 school year. Under the program, schools across the state can order North Carolina produce, which is coordinated and transported to schools by the NCDA&CS Food Distribution and Marketing divisions. Farm-fresh produce offered in schools includes apples, blueberries, broccoli crowns, cabbage, melons, cucumbers, peaches, lettuce, sweet corn, sweet potatoes, tomatoes, watermelons, and zucchini.



During the 2011-12 school year, approximately 1,600 schools participated in the Farm to School Program, ordering more than 1.5 million pounds of fresh produce. The program helped feed more than 1 million students this year, up substantially from 100,000 during the 2010-11 school year.

→ **What it means?** A successful collaborative effort to get fresh produce to children by making fruit and vegetables part of school meals. This can only provide a positive influence on the future diet of these young consumers.

- Category profiles were developed to meet a perceived need for a product category snapshot and evolved substantially over this period in response to feedback from market information users. The first profile was a one-page document covering Broccoli and included the following:

- Key Facts - production volume, approximate retail market value, purchase quantity per shopping trip.
- Production volume by state.
- Supply chain flow of product to distribution channel.
- Wholesale market price compared to total vegetables.
- Commentary on comparison with US and UK retail ranges.

The content was enhanced to a two-page profile with the addition of:

- Supply chain volumes and values for all channels.
- Retail sales contribution in volume and value by product type.
- Retailer advertisement patterns and activity levels.
- Ranking in purchase frequency by household compared to other fresh vegetables.
- Penetration and purchase quantity by household type.
- Consumption profile of preparation and use.
- Charted profile of range comparison between the US and UK.

To date category profiles have been completed for the following vegetable categories:

Date	Category	Version
Oct-10	Broccoli	1.0
Nov-10	Carrots	1.0
Dec-10	Asian Leafy Veg	1.0
Jan-11	Capsicums	1.0
Feb-11	Sweet Corn	1.0
Mar-11	Pumpkin	1.0
Apr-11	Cucumbers	1.0
May-11	Zucchini	1.0
Jun-11	Cauliflower	1.0
Jul-11	Beans	1.0
Aug-11	Celery	1.0
Sep-11	Brussel Sprouts	1.0
Oct-11	Eggplant	1.0
Nov-11	Broccoli v 2	2.0
Jan-12	Capsicums v 2	2.0
Feb-12	Cucumbers v 2	2.0
Mar-12	Sweet potato	1.0
Apr-12	Pumpkin v 2	2.0
May-12	Cauliflower v 2	2.0
Jun-12	Celery v 2	2.0

Figure 8 Vegetable category profiles

A sample of this output is included in Appendix B, as the last two pages within Monthly Veginsights.

- Quarterly Veginsights, were first compiled for Quarter 4 2009 and has evolved to include a set of market tracking variables and more different and detailed insights into selected topics, as detailed in Table 4 on page 16.

Table 4 - Quarterly Veginsights and the detailed insights on key topics included

Quarterly Veginsights #	Detailed insights on key topics included
Q4 - 09	Vegetable and food market settings – MasterChef impact
Q1 - 10	Home delivery of food – Ethical foods
Q2 - 10	Foods and the next generation
Q3 - 10	Annual Situation and Outlook. Insights included demand drivers and consumers buying complete meals
Q4 - 10	Food consumer attitudes and values
Q1 - 11	Vegetable shopper attitudes; Use of shopping lists
Q2 - 11	Impact of vegetable buyer behaviour; Preparation methods
Q3 -11	Insights from Asia Fruit Logistica
Q4 - 11	Annual Situation and Outlook. Insights included household segments and key characteristics
Q1 - 12	Vegetable purchase quantities, range and price comparisons

- Other program outputs included:
 - Pilot Webinar for a grower group meeting in Bundaberg
 - Conference addresses and grower group meetings
 - Vegetable market case studies
 - Articles and inserts for the Vegetable Australia magazine
 - Direct responses via email and phone to queries from AUSVEG and directly from vegetable producers.

3.5 Distribution methods

The distribution methods were via the AUSVEG website and communications program. This was the planned approach and based on the 'Information User survey' results (see 4.1), the material appears to have reached the target audiences for the project.

Market variables information was posted on the AUSVEG website weekly. Availability of the monthly and quarterly Veginsights was conveyed by an AUSVEG initiated email to a contact database of growers, which invited a "click through" access the document.

Copies of all program report outputs were available through the Knowledge Management system accessed by registered users of the AUSVEG website.

Program outputs were also made available via the Freshlogic office, website and distributed at trade events. The Innoveg sub-program produced a publication that combined 10 category profiles into one consolidated document.

Articles that were compiled for inclusion in Vegetables Australia magazine, included:

- Grower webinar feature
- The carrot category profile
- Key facts in the veggie bites section. Figure X is an extract from the Jan/Feb 20XX edition of The Vegetables Australia magazine. The use of brief key facts and

insights is becoming increasingly common and responds to the need to cut down the information overload experienced by producers.

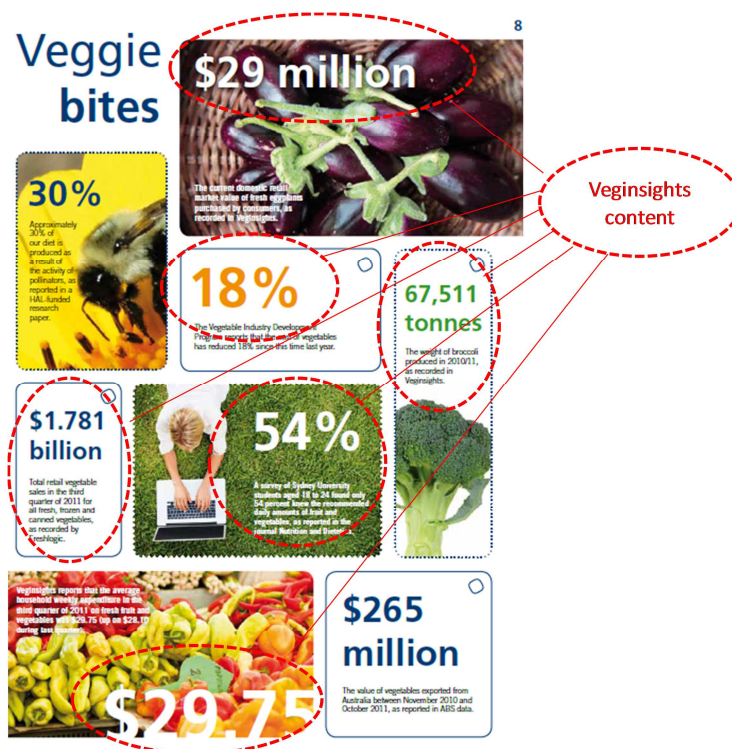


Figure 9 Vegiesights content in Veggie bites

At the conclusion of this project, all program outputs will remain available to industry via the AUSVEG website.

4.0 Evaluation

4.1 Information user survey

A web-based survey of vegetable market information users - Consumers & Market Information Survey - was undertaken in Jan-Feb 2012. Survey invites were sent out by Ausveg and responses were collected online.

Questions were defined and detailed by Freshlogic and AUSVEG. The research objectives were centred upon assessing:

- Vegetable market information use.
- Awareness of the Consumers and Markets sub program.
- Views on the usefulness of products developed by Consumers & Markets subprogram.

The opportunity to complete the survey was sent to registrants on the AUSVEG contact database. The invitation included an incentive to participate, with the opportunity to win an iPad2 (Figure 10).



Figure 10 Consumers & Markets survey

The occupation and location of the 170 respondents to the survey is profiled in Figure 11. A range of supply chain participants responded, with growers representing the largest segment (34%).

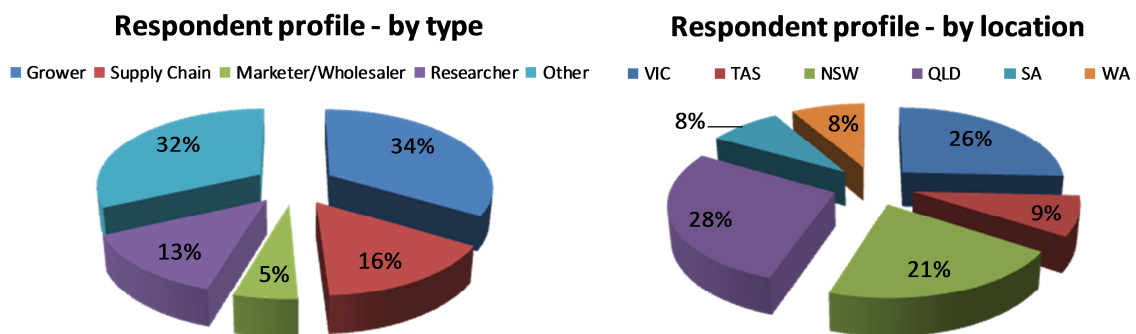
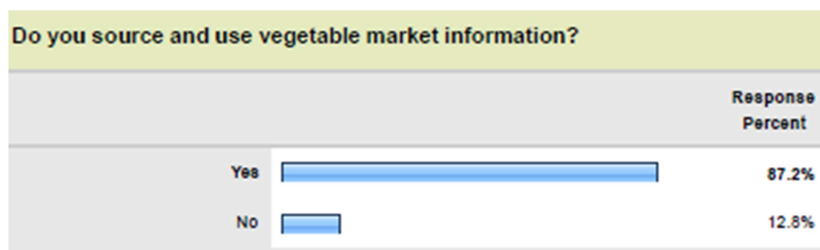
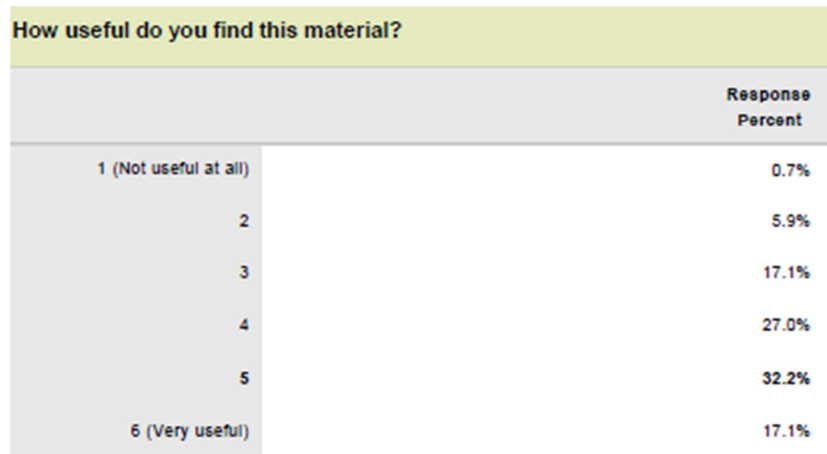
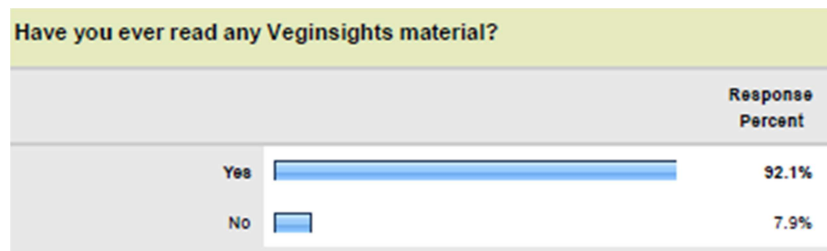


Figure 11 Respondent profile – by type and location

A summary of the survey responses is detailed in Figure 12 below.

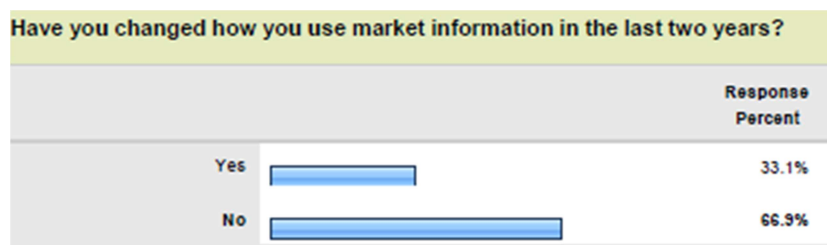
Figure 12: Summary of the survey responses





13. How useful do you find the following sections of Veginsights...

	< Not Very Useful (1)	(2)	(3)	(4)	(5)	Very Useful (6) >	Rating Average
Market size and sales trends	1.3% (1)	8.9% (7)	13.9% (11)	16.5% (13)	26.6% (21)	32.9% (26)	4.57
Wholesale price	3.8% (3)	11.4% (9)	20.3% (16)	26.6% (21)	20.3% (16)	17.7% (14)	4.01
Retail advertising activity	13.0% (10)	15.6% (12)	18.2% (14)	26.0% (20)	15.6% (12)	11.7% (9)	3.51
News and innovations from around the world	0.0% (0)	7.7% (6)	6.4% (5)	24.4% (19)	25.6% (20)	35.9% (28)	4.76
Vegetable category profiles	2.5% (2)	3.8% (3)	8.9% (7)	22.8% (18)	30.4% (24)	31.6% (25)	4.70



These responses, with numerical scores on a scale of 1-6, indicated:

- A high awareness of the program banner Veginsights (92%).
- Most respondents indicating that the Veginsights material is useful, with 49% stating it was useful or very useful and the average response 4.35.

- The major components in program outputs returned positive scores for usefulness. The retail advertisement data was the lowest at 3.5 and the News & Innovations and Vegetable Product Category Profiles the highest at 4.7.
- 33.1% of respondents have changed how they access market information in the last two years. While the Veginsights outputs are not the only products delivering market information, it has been the most significant change in the provision of vegetable market information during the period of this project.

These survey results indicate the program reached vegetable industry stakeholders and that they found relevance and value in the content of Veginsights products.

5.0 Learnings, Challenges and Recommendations

5.1 Key learnings

The key program learnings from this project are:

- Based on survey results, the program has delivered content that is viewed as commercially useful and contributed to changes in how vegetable enterprises use market information. In summary, it appears to have stimulated increased receptiveness to vegetable market information. The indications are that the suite of data inputs, the analysis, and the design of market information products have created a system that has earned support from vegetable stakeholders.
- The packaging or bundling of market information into concise summaries is welcomed and effective. This approach has allowed a wider range of market information to be bundled and conveyed and the links between the various components to be profiled. This has included the links between the consumer purchase quantity and available retail product range to be profiled, leading to the identification of new product opportunities.
- All indications are there that there is a lower level of demand for fuller more detailed market information. The more involved and complex the product, the greater the challenge in gaining traction and use. This signals the challenge in conveying deeper more complex issues related to interpretation and use of market information.
- Dissemination to all participants requires multiple formats. The use of electronic distribution (email and website) is cost efficient, timely, and while it will reach most stakeholders, it does not reach them all. For a variety of reasons including technology skills, remote infrastructure and a low history of information use, some vegetable producers will only be reached with hard copy and direct personal interaction for the foreseeable future.
- A number of factors can impact the type of market information required, with the influences varying from changing market conditions to improved information use. These variations need to be accommodated to maintain credible output and this is best achieved by a process that captures of ongoing user feedback and continued innovation.

5.2 Key challenges

These are centred on:

- The need to maintain the relevance and freshness of market information material and not lose users as a result of perceived repetition. This brings a healthy pressure to innovate in terms of what information is collated, how it is analysed and presented, as well as the core need to refresh the hard market data and maintain a time series of information.
- Balancing the requirement to provide the concise profiles that information users welcome and developing an approach to using market information for more business decisions.
- Ensuring the project and its information products advantage the core stakeholders, namely the levy paying growers. This issue is compounded by the steeper learning curve that some grower enterprises are on in relation to their trading partners and that, in the information age, program outputs soon reach the whole vegetable supply chain.
- Finding the right means to disseminate outputs to reach the target audience without creating a cost burden servicing those who do not use the internet. The Consumers & Markets subprogram has developed a process that collates defined data inputs and produces Veginsights outputs and products. Some of these data inputs are daily, but most are weekly. If data collection is discontinued, this will create data gaps and hence gaps in the time series analysis which may not be able to be filled at a later date.

5.3 Opportunities and recommendations

Table 5 - The opportunities and recommendations include:

Opportunities	Recommendations
<ul style="list-style-type: none"> • Build upon the current level of support and continue to provide some level of market information. This would avert the risk of vegetable market information use declining or being compromised by drawing on out-dated market data. 	<p>1 Continue to invest to maintain the currency of data, analysis and supply of the current vegetable market information and products.</p>
<ul style="list-style-type: none"> • Provide capacity to generate more detailed consumer information on vegetable buying and preparation influences at a vegetable product or category level. This data would provide the kick start to product management and new product development investments. 	<p>2 Create the capacity to to capture of detailed product level data from consumers.</p>
<ul style="list-style-type: none"> • Providing export market information in ways that will demystify and encourage export market development and growth. Take advantage of domestic market information formats to deliver this information to industry. 	<p>3 Provide coverage of export markets in a similar format to domestic market information to connect with producers with export opportunities.</p>

6.0 Acknowledgements

Support from other VIDP sub programs.

Vegetable enterprise that assisted by providing opinions and data to validate vegetable market size and share assumption.

7.0 Bibliography

AVID Group, 2006, Vegvision Strategic Plan 2020 Australian Government through the Department of Agriculture, Fisheries and Forestry.

Concept Consulting, August 2008, Vegetable Industry Information Dissemination Stakeholder Research.

Kiri-gania Research, November 2005, The Australian Vegetable Industry Taking Stock and Setting Directions, Australian Vegetable Industry and the Australian Government.

Synovate Business Consulting, March 2007, Advancing Industry data and Information systems, Horticulture Australia Ltd.

8.0 Appendices

A. Weekly Market Variables

This appendix is a sample of the Weekly Market Variables generated by Consumers and Markets subprogram.

Weekly Vegetable Market information

There are several market variables that reflect the trading dynamics of the past week. They are tracked and translated into the profiles below that show the status and level of activity.

This currently includes the coverage of:

- Retailer vegetable promotional activity
- Wholesale vegetable price trends

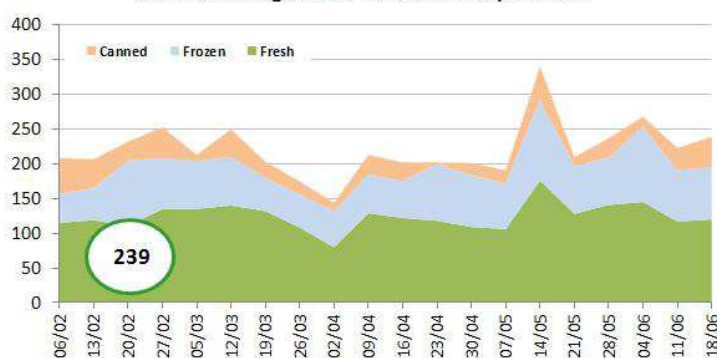
This information is produced by Freshlogic as part of the Consumers & Markets sub-program of the VIDP.

There was 7.2% more retail promotional activity for vegetables this week. The weighted national total wholesale vegetable price was 22.5% lower than in the same week in June 2011, but 4% higher than the week immediately preceding 18 June 2012.

Week commencing

Monday – 18 June 2012

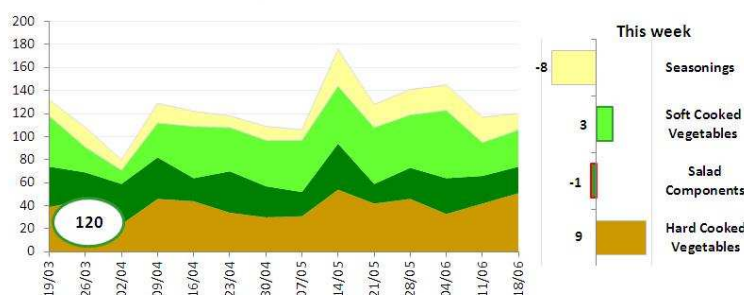
Advertised vegetables - total adverts per week



The overall exposure of vegetables in retail promotional advertisements **increased by 7.2%** from last week's volume to a total of **239 lines**.

Over the week, there was a notable increase in the number of canned vegetables advertised. In addition, there was a small increase in the number of fresh and frozen vegetables advertised.

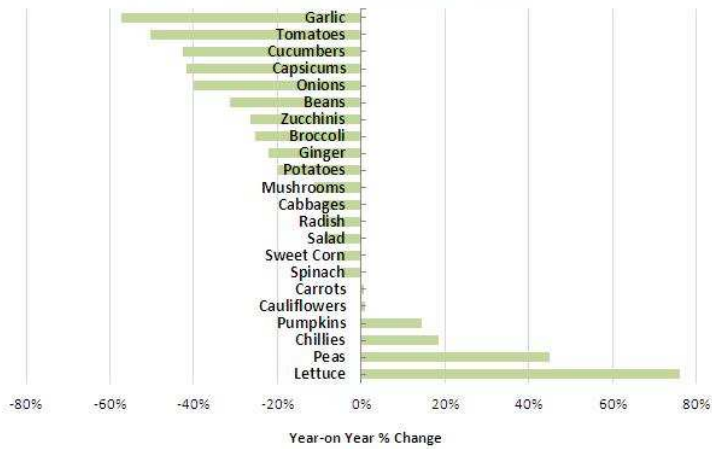
Advertised fresh vegetables - total adverts per week



Over the week, the volume of **fresh vegetable adverts increased by 2.6% to 120 lines** and was well above the number of lines recorded at the same time in 2011.

Over the week, there was an increase in the number of hard cooked vegetables and soft cooked vegetables advertised. This was partly offset by a decrease in the number of salad components and seasoning advertised.

State weighted national wholesale price per kg
Change for week comm 18 June 2012 vs 2011



When compared to the week immediately preceding 18 June 2012, wholesale prices increased by 4%. The weighted national total vegetable wholesale price is currently \$2.66 per kg.

Overall, wholesale prices have decreased this week compared to those at the same time last year, with the weighted national total vegetable price for this week 22.5% lower than that reported in the same week in June 2011.

Compared to the same week last year, wholesale prices for seasonings decreased by 38%, salad components by 29%, hard cooked vegetables by 13% and soft cooked vegetables by 12%.

At a product level, a number of vegetables recorded a decline over the same week last year including garlic, tomatoes, cucumbers, capsicums and onions. There were a number of vegetables which experienced a strong price rise during June and July 2011, and as such a number of vegetables are now recording quite a large decrease when comparing prices year-on-year.

In contrast, lettuce, peas and chillies were among the vegetables that recorded an increase over the year.

NB This wholesale price analysis draws on historical data and is now able to profile the changes on the previous year. The changes should not be compared to previous analysis outputs, which due to the lack of historical data, were only able to profile changes in consecutive weeks or months.

B. Monthly Veginsights & Category Profile

This appendix is a sample of the Monthly Veginsights and Category Profile generated by the Consumers and Markets subprogram.

VEGINSIGHTS

A VIDP initiative



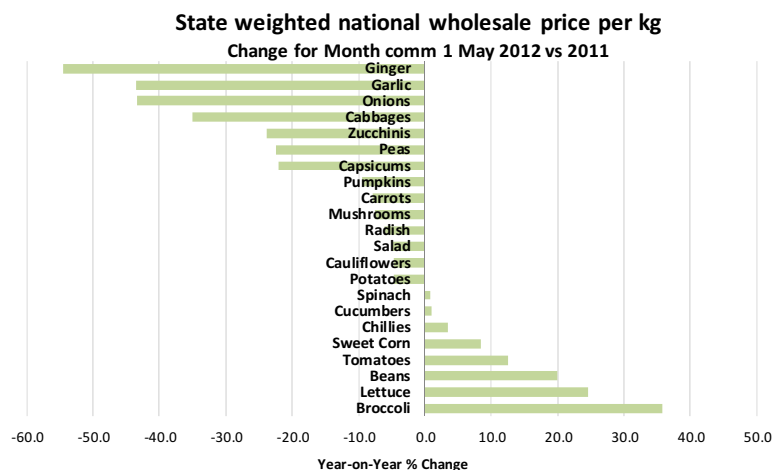
monthly vegetable market insights – May 2012

Highlights

- Wholesale values firm for more high volume vegetables
- Retailers to roll out varying store formats
- Virtual gardening: grow vegetables the new way
- Barely a fifth of Britons eat 5 A DAY
- Shadow-activated 3D QR codes boost sales
- Cauliflower profile with a retail value of \$101m

Vegetable market

Wholesale vegetable prices – The wholesale price difference between May 2012 and May 2011 for the major vegetables is profiled in the chart below.



Supply stabilised for more of the high volume vegetable products and this flowed onto a positive impact on wholesale price levels.

The weighted national wholesale price for all vegetables was 4.4% lower when compared to May 2011. The impacts across the products varied, with seasonings still well below last years while hard cooked vegetables values firmed. Salad components also increased and soft cooked vegetables showed a small decline compared to May 2011.



At the product level, the most significant changes from last month were reflected in improving prices for tomatoes and potatoes, while the major seasoning lines of garlic ginger and onions remained in full supply at lower prices than last year. Lettuce and broccoli remained strong and bean prices increased over the same month last year.

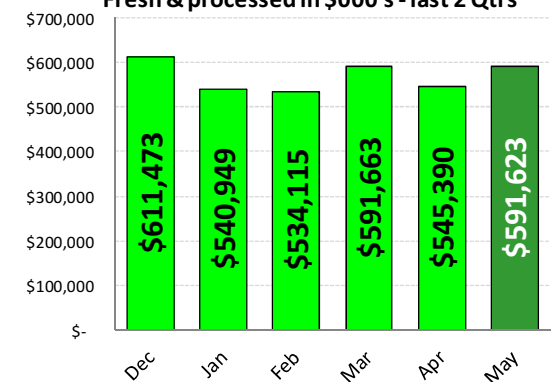
The weighted total vegetable wholesale price for the week commencing 22 May 2012 was \$2.75 per kg.

The total retail sales of fresh and processed vegetables in May 2012 are estimated at \$591.6m, as profiled in the adjacent chart. These sales are lower 2.0% lower than in May 2011.

The improving wholesale prices eased the downward pressure on sales values that has been apparent since the start of 2012.

The product level status of wholesale values compared with last year is profiled in the adjacent chart.

Total vegetable retail sales by month
Fresh & processed in \$000's - last 2 Qtrs



The Australian food market

Coles' enlarges smaller stores... Coles has outlined plans to increase the size of its supermarkets, as it continues its battle with Woolworths. It aims to increase its floor space by 2% each year, providing more room for groceries and fresh food, as well as new categories such as its clothing brand Mix, which it launched in October last year.



The company has been replacing stores with an average size of 1,700 sq m with 2,700 sq m stores, which is about 40% larger than the ones being closed. Coles expects to open 19 new bigger stores, close 11 stores, and extend another 10 stores in 2012. Up to 400 stores are also set to be refurbished.

... While Walmart eyes smaller stores –

Walmart, best known for its large supercentres, is set to roll out more 'convenience' format – 'Walmart Express' – stores throughout the US, in a bid to solve shoppers' convenience gap and fight off competition from rapidly expanding dollar-store chains. The strategic expansion is based on the success of its trial 10 Walmart Express stores, launched last year, which served as testers in markets such as Chicago and rural spots in North Carolina.



Walmart Express stores range from 1,100 to 1,400 sq m, significantly smaller than the 624 Walmart Discount stores (which average 10,000 sq m) and are designed as a hybrid between food, pharmacy, and convenience. Walmart also plans to open 80 more 3,700 sq m, mid-sized-format Neighbourhood Markets in 2013. The company said that smaller stores offer customers flexibility, particularly to those who live in areas that lack larger stores.

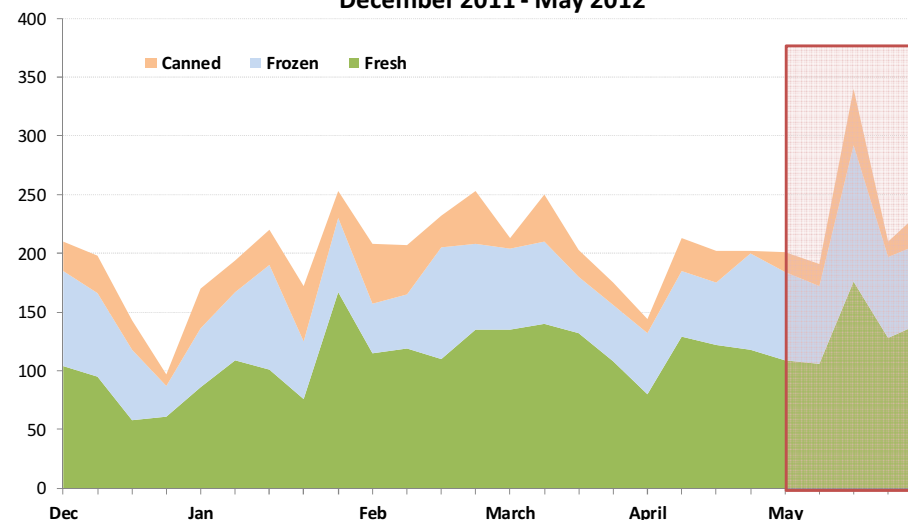
→ **What it means?** As the larger retailers look to tailor their store networks to attract customers and maximise performance, it is apparent that one solution does not apply in all situations.

Retailer activity

Promotional activity in the month of May – The retail promotional activity reflects a pattern of increasing exposure for vegetables, marked by a sharp increase in the third week of the month.

Over the month, the exposure of the total vegetable products increased to an average of **236 products per week, up from 190 products in April 2012**. The increase has been driven by more exposure for frozen and fresh vegetable products this month.

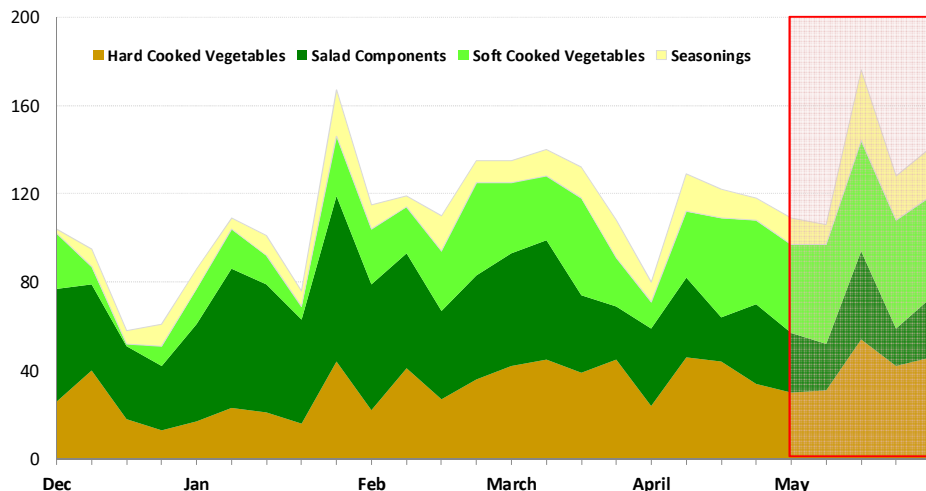
Advertised vegetables- total adverts per week
December 2011 - May 2012



Within the fresh vegetables, there was a decrease across all fresh vegetable categories – salad components, hard cooked vegetables, soft cooked vegetables

and seasonings – advertised in May 2012.

Advertised fresh vegetables- total adverts per week
December 2011 - May 2012



The promotional activity among the majority of the top retailers in May 2012 reflects an increasing trend in Fruit and Vegetables (F&V) exposure compared to April 2012. This is attributed to higher levels of competitive intensity and the value spotlight being focused on F&V.

The consumer

A new way to grow vegetables and herbs

– A new scheme ‘i-Grow’ – which has been developed by UK Abbey Parks Farm - offers people the opportunity to rent a patch of land on the farm and grow their own produce through a website.

The virtual gardeners can choose the vegetables and herbs they want grown on it, as well as receive updates and photos on their patch’s progress as farm workers tend the growing plants. The produce, once



ready, is delivered to their door. Those who live nearby the farm can also collect their own produce during the harvest season. The scheme is aimed at ‘city-based gardeners’ who do not have enough time or land to grow their own food. For more information, click <http://abbeyparks.co.uk/allotments/>

→ **What it means?** An innovative scheme that caters for the lift in demand for home-grown food by helping urban dwellers to grow their own fresh produce with the click of a mouse.

Farm to School program tops \$1m in sales – For the first time in its 15-year history, the North Carolina Department Farm to School Program posted more than \$1.2 million in sales of fresh fruits and vegetables during the 2011-12 school year. Under the program, schools across the state can order North Carolina produce, which is coordinated and transported to schools by the NCDA&CS Food Distribution and Marketing divisions. Farm-fresh produce offered in schools includes apples, blueberries, broccoli crowns, cabbage, melons, cucumbers, peaches, lettuce, sweet corn, sweet potatoes, tomatoes, watermelons, and zucchini.



During the 2011-12 school year, approximately 1,600 schools participated in the Farm to School Program, ordering more than 1.5 million pounds of fresh produce. The program helped feed more than 1 million students this year, up substantially from 100,000 during the 2010-11 school year.

→ **What it means?** A successful collaborative effort to get fresh produce to children by making fruit and vegetables part of school meals. This can only provide a positive influence on the future diet of these young consumers.

US poll finds support for ‘local’ despite higher cost

– New market research commissioned by the US WK Kellogg Foundation and conducted on 800 adults using mobile or landline phones from 18-22 April 2012 found that:



- More than 80% of respondents strongly or partly agreed that Washington DC should shift its support toward smaller, local fruit and vegetable farmers and away from large businesses.
- About 90% strongly or partly agreed that they would pay more for produce if that money stayed in the community.
- 88% of respondents stated that they are willing to pay \$1.50 more for produce each month to ensure fair wages are paid to those picking fruits and vegetables.

→ **What it means?** *These findings provide another indication of the demand support locally grown fresh produce.*

Barely a fifth of Britons eat 5 A DAY –

Latest research by the World Cancer Research Fund (WCRF) shows that only 22% of 2000 adults surveyed in the UK are eating the recommended five portions of fruit and vegetables. Those living in the north struggled more with 18% meeting the quota of five portions compared to 26% in southern England.



Income also had a large impact with 17% of people in low-earning households eating five a day, compared to 27% of high-earners. The Department of Health first encouraged people to hit the healthy eating target in 2003. This year, the WCRF is encouraging people to eat ‘just one more’ portion of fruit or vegetables in a bid to boost consumption levels.

→ **What it means?** *Despite the widespread consumer awareness about the significance of eating 5 A DAY, clearly there still exist barriers to incorporating fresh produce into daily diets. Perhaps smaller stepping stones are required.*

Innovation from the world

Shadow-activated QR codes boost sales – A new shadow-activated, three-dimensional QR code is the latest creative promotional tool to combat the periodic lulls in business and step-up consumer activism.

Recently, retailer EMart strategically placed 3D QR code sculptures - as part of its new ‘Sunny Sale’ promotional campaign - throughout Seoul, Korea. These codes

depend upon the right combination of shadow and sunlight to be complete and are scannable only for an hour - between noon and 1 pm each day – to offer shopper discounts during lunchtime, the slowest business hours for the retailer.

Successfully scanning a code takes consumers to a dedicated home page with special offers including a US\$12 coupon. Purchases can then be made via smartphone for delivery direct to the consumer’s door. As a result of its creative promotion, EMart reportedly enjoyed membership increases, together with an increase in sales during lunch hours.



→ **What it means?** *A creative take on mobile commerce to align with the increasing number of consumers who use this medium.*

Innovative iphone app wins dieticians’

award – An innovative iphone app has helped two Sydney-based dieticians win the Dieticians Association of Australia President’s Award for Innovation.

After several years of research and planning, the ‘Food?Sick’ app was launched in August 2011 to help people with food intolerances, or those suspecting they may have an intolerance, track symptoms and food intake. It helps users to identify patterns in symptoms that they experience after eating foods, which in turn, helps identify which foods trigger the symptoms. Food intolerances may trigger headaches, bloating, rashes, and behavioural symptoms in susceptible individuals. Using this app, users can:



- Record everything they eat and drink and rate their symptoms from scrollable lists using a five-point scale.
- Take photos of food and symptoms.
- Add own foods, medications, and symptoms to the lists.
- View food and symptoms over a day at a time, or history of symptoms over a month.
- Record details for more than one person.

- Email report to their dietician as spreadsheet or PDF.

Food?Sick is available at the App store for \$2.99.

→ **What it means?** *A novel use of the interactivity and flexible nature of the digital media as a food diary to help people with food intolerances.*

Food labelling invention tracks ‘use within’ dates on food products

– A new ‘smart food label’ – ‘UWI Label’ - developed by European scientists could have far-reaching applications in the foodservice industry with its ability to reduce waste, aid food safety and also save money for consumers.

The label is a flexible smart label with an embedded chemical-based time indicator strip which reacts as soon as a food jar or packaging is opened and then displays the elapsed time, as well as a visual warning when the product is no longer safe to consume. For example, the indicator panels on the label progressively turn green to show the elapsed time from the opening of a product and a red panel alerts consumers when the ‘use within’ period has expired. Time ranges on the UWI label can be set as hours, days, weeks, months up to a six-month total and this desired time period is pre-set at the point of production or manufacture. The label is scheduled to go into mass production before the end of 2012.



→ **What it means?** *A unique food labelling invention that might prove to be a game changer by taking the guesswork out of use-by labels, and in turn, significantly reduce food wastage levels at home.*

New baseball lettuce packaging unveiled –

A new promotional Baseball Iceberg Lettuce packaging has been launched by US Tanimura & Antle in the US, in a bid to effectively differentiate the popular iceberg lettuce on the shelf in the upcoming baseball, as well as salad season.

The new packaging includes the traditional red baseball stitching and a baseball card-style recipe for an easy-



prep wedge salad. The package also co-promotes the company’s Artisan Sweet Italian Red Onions, featuring the recipe ingredients on the package. The idea was drawn from the company’s experience in 2007, when similar packaging boosted sales for two weeks leading up to Father’s Day.

This seasonal packaging will be available to retailers through October this year.

→ **What it means?** *A clever packaging innovation that bundles together distinct design and co-promotion tactics to generate sales momentum during the key summer salad season..*

New watermelons earn their stripes

– New watermelons – Bengala F1, Style F1, and Ivona F1 – were recently unveiled by Spanish seed breeder Nunhems.



Bengala F1 is an early, white seedless watermelon with good Brix levels that is ready for harvest a week earlier than other varieties, theoretically more profitable melon for growers. The majority of the sizes are 4s and 5s, which is expected to help in cut handling and packing time. The stripes on its thin skin are very well defined and stand out against their background, while its flesh is an intense red and has a crunchy texture.

Style F1 and Ivona F1 are dark seedless varieties similar to Bengala in terms of their flesh colour and homogeneity of their sizing. However, while Style F1 has the same sizing as Bengala F1, Ivona packs out in 2s and 3s. Both have consistent post-harvest performance.

→ **What it means?** *Unique varieties that seek to benefit both producers and consumers with their early season availability and consistent yield.*

New filter is good for cabbages –

An innovative filtration machine, Fresh Pod EC 3+, has been launched which claims to extend the British cabbage season by up to eight weeks.

The Fresh Pod EC 3+ unit works with existing air circulation systems to remove the ethylene gas from the air, a compound naturally given off by cabbages



which accelerates the ripening process. The filtration system also claims to eradicate invisible airborne spores and moulds that contribute to increased wastage.

→ **What it means?** *This innovation extends the supply window for locally grown cabbages and provides greater control over the supply chain.*

New artichoke varieties in the US –

Three new red artichoke varieties – Sangria, Fiore Viola, and Fiesole – developed by the US Baroda Farms in collaboration with French and Italian breeders were rolled out at Ralph’s Grocery Co. (a Kroger subsidiary) and Maria’s Italian Kitchen restaurants (25 April-6 May) by specialty producer Frieda’s Inc in the US.



The Sangria artichoke has a deep burgundy colour, pointed shape, and thick leaves with an earthy flavour. The Fiore Viola artichoke has a deep purple colour, round shape and very thick leaves with a sweeter flavour. The Fiesole is a baby artichoke that does not have an inner choke and is almost completely edible.



During the two-week retail and foodservice promotion in Southern California, in which the varieties were promoted with ‘locally grown’ signage, the two larger varieties – Sangria and Fiore Viola – were retailed for two at \$5, while one-pound of Fiesole was priced at \$3.99 at Ralph’s Grocery. The three varieties are projected to be available in August 2012.

→ **What it means?** *That a specialty product with local links is now being produced and expects to win appeal on its attributes of unique taste, higher yield, versatility and colour.*

New colours and uses for carrots – A colourful assortment of carrots have been developed by Italian Bejo, one of the leading companies in breeding, production, processing, and distribution of vegetable seeds. The new varieties include purple, yellow, and white carrots, with a plurality of uses.

- **Purple carrots** owe their colour to the high anthocyanin content, which stimulates immune defence, preventing cancer and cardiovascular diseases. They have uniform roots, mild flavour, and intense purple interior.
- **Yellow carrots** contain high levels of lutein, which protects eye retina against effects of white light. It also prevents the development of cancer and cardiovascular diseases. Usually have a sweet flavour and ideal for specialty market. Yellow carrots preserve their colour when cooked.
- **White carrots** are good for digestion. They are very sweet and crisp, and considered ideal for the specialty market.



→ **What it means?** *Promotion of the colourful assortment of carrots correlated with their health benefits – at their core – seek to increase consumption of this highly popular fresh product.*

The report has been produced by Freshlogic as part of the National Vegetable Levy and matched funds from the Australian Government. It forms a part of the VIDP and aims to inform vegetable producers and supply chain stakeholders on market influences and developments in the past week. We recommend that those seeking to act on the basis of this information first obtain independent professional advice.

Category in Profile: Cauliflower

- Cauliflower was the 13th most frequently purchased vegetable by households (weekly) in the December quarter 2011.
- Over the last 4 quarters (Mar 11 – Dec 11) cauliflower had an average weekly penetration of **25%** across all households.
- Cauliflower is a low value product that is purchased by consumers for an average of **\$2.51** per kg, which is lower than the average retail price of **\$3.50** per kg for all vegetables.

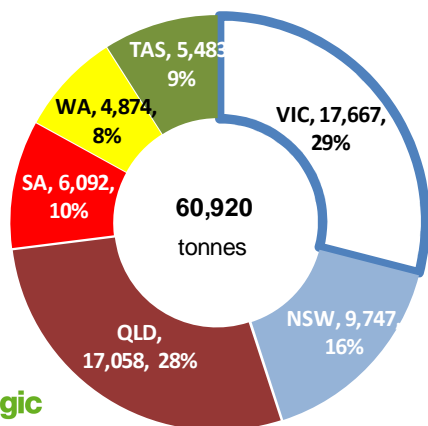


Key Facts

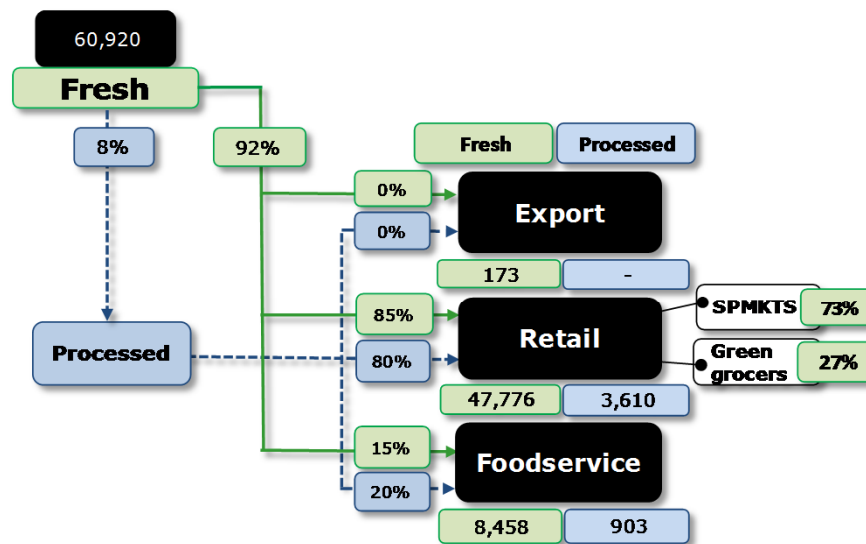
- Cauliflower production was 60,920 t in 2011.
- The retail channel buys 51,386 t.
- The foodservice channel buys 9,360 t.
- The current domestic retail market value of fresh cauliflower purchased by consumers is \$101 million.

State Production

Annual tonnes by state

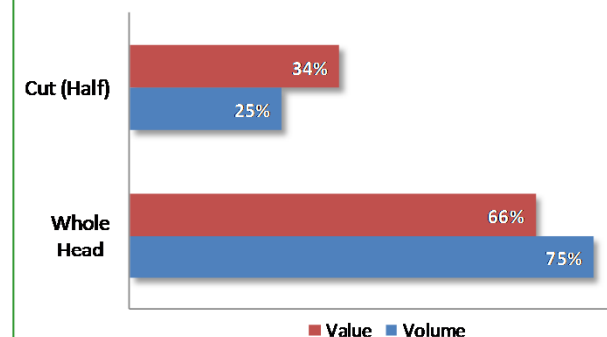


Volumes and Shares through the Chain



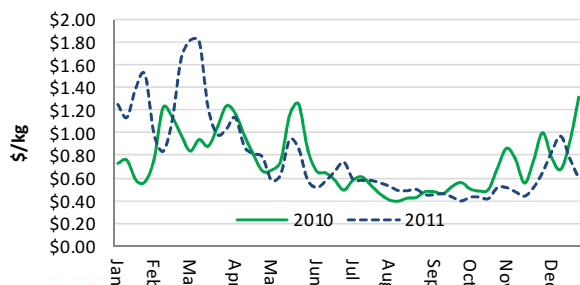
Fresh Retail Sales

Cauliflower retail sales contribution



Wholesale Price

Average Cauliflower Wholesale Price

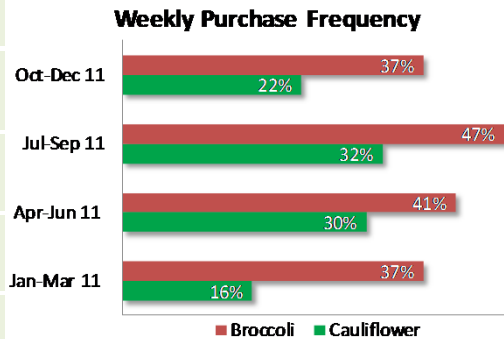


- The fresh domestic market is supplied with 56,407 tonnes of cauliflower.
- The processed market is supplied with 4,513 tonnes of locally produced product .
- Imports of fresh cauliflower are negligible.

- All figures presented are for the year ending December 2011.
- The current retail market sells **40,276 tonnes** of fresh cauliflower's, worth a total value of **\$101 million**.
- The average retail price paid for cauliflower was **\$2.51** per kg.
- Cauliflowers are sold in whole and half forms, with both selling on 'per each' basis.

Consumer Penetration

Household Segments	Average Purchased Quantity (kg)	Purchase Weekly
Singles & Couples with lower income	0.888	24%
Singles & Couples with higher income	1.006	24%
Budgeting families	1.103	23%
Established families	0.841	24%
Empty Nesters	1.174	30%



- In the December quarter 2011, cauliflower's were the 11th most frequently purchased fresh vegetable based on weekly purchase patterns and regularly feature in the top 13 vegetable products.
- Based on the analysis of retail Docket data for the year ending December 2011, provided as part of the Mealpulse™ panel, the average quantity of cauliflower Australian consumers selected was **1.005 grams**.

Mealpulse™

Consumption Profile

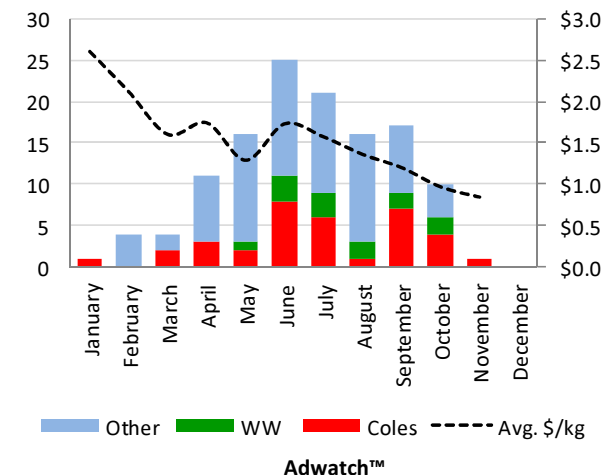
- Cauliflower is largely consumed as a side dish, with the most common preparation methods including boiling, steaming, or baking.
- The use of cauliflowers in stir fries and curries has helped maintain consumption during the warmer months of the year.



Cauliflowers consumption profile	Boiled, M-W, Steamed	✓
	Deep fried	
	Mashed	✓
	Roasted	
	Baked/Grilled	✓
	Salad - cooked	✓
	Soup/Sauce	✓
	Stir fry	✓
	Juiced	
	Salad - fresh	✓
	Sandwich/burger/wrap	
	Snack	

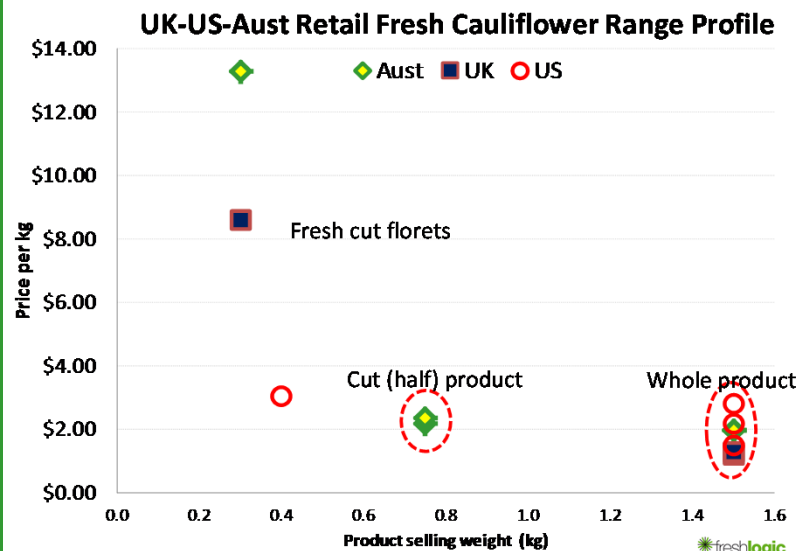
Promotional Activity- 2011

Cauliflower Promotional Activity- 2011



- This graph details the number of promotional adverts by retailer for each month.
- For the year ending December 2011, there were a total of 126 adverts and some level of retail promotion activity in 38 of the 52 weeks. This generates an average of 10.5 promotional adverts per month.
- For the year ending December 2010, there were a total of 146 adverts and some level of retail promotion activity in 37 of the 52 weeks. This generates an average of 12.2 promotional adverts per month.

UK-US-AUST Retail Range Profile



- This analysis has drawn on data gathered from Australia retail and UK and US online sites. It is considered representative of the current retail ranges in each market.
- All products across the three markets were sold by the each.
- Cut product generated a slight premium in all three markets.
- Baby product was available in the Australian and UK markets, while pre-packed crowns were offered in the US market.

C. Quarterly Veginsights

This appendix is a sample of the Quarterly Veginsights generated by the Consumers and Markets subprogram.

Purchase Quantity Analysis and Vegetable Market Trends for Q1 12

Veginsights

• The market – Q1 12

A profile of the three-month period ending 31 Mar 2012

June 2012

Prepared by Freshlogic as part of the Vegetable Industry Development Program



Content Overview

This version of Veginsights – The Market addresses Q1 2012, and draws comparisons to the previous quarter (Q4 2011) and the same quarter in the previous year (Q1 2011), with profiles of the key trend indicators.

This report also includes analysis of average purchase quantities, and considers the relationship between this and household penetration and retail price. It also includes a comparison between the average ‘loose’ quantities for selected vegetables and the respective pre-pack offer. This analysis incorporates key implications arising from the findings.

A support document ‘Veginsights – Market Settings and Methodology’ is also available, which outlines the vegetable market settings and the methodology used in preparing this report.

Data sources

The analysis in these documents draws on purpose-built vegetable market models and detailed vegetable consumption data gathered by the **Mealpulse™** food panel. These sources are combined to define and track market volumes and values and derive insights of commercial relevance to vegetable producers.

Quarterly Report - Q1 2012

1. Key findings and implications	3-6
2. Purchase quantity analysis	7-11
3. Vegetable market trends	12-22
3.1 Household spend on fruit and vegetables	
3.2 Market size and contribution	
3.3 Food and vegetable inflation	
3.4 Wholesale vegetable market price trends	
3.5 Vegetable retail promotional activity	
3.6 Vegetables purchased and preparation method	
3.7 Fresh vegetable buying patterns	
3.8 Most popular purchased vegetables and shopping trip patterns	
3.9 Vegetable buying trends and reasons for buying	
4. Household segments and key characteristics	23
5. Fresh vegetable product categories	24

Support document - Vegetable market settings and methodology

Click [here](#) to access

1.0 Executive summary

Overview

This is the tenth quarterly Veginsights – The Market, developed under the Consumers and Markets sub-program of the Vegetable Industry Development Program. It provides market definition, quantification and insights into the vegetable market and consumer behaviour.

It has been produced for Australian vegetable producers and the service providers who operate in supply chains that support vegetable producers.

This report confirms the settings for the market and consumer analysis; indicates how they may have altered in the first calendar quarter of 2012 and makes comparisons with both the previous quarter and the first quarter of 2011. It values the annual retail market for all forms of vegetables at \$7.05 billion and profiles the market for the three-month period ending 31 March 2012 for fresh vegetables.

The report also provides analysis of the average purchase quantities across a range of vegetables, and considers the relationship between this and average household penetration, retail price and the pre-pack offer, and then highlights the resulting insights.

The report includes outputs and analysis from a market model, which consolidates and reconciles vegetable production output through to household consumption.

This report also aims to profile vegetable consumer-buyer behaviour and vegetable market performance. The information compiled in the report can be used by the target audiences to:

- Assess market, channel and category performances
- Guide production forecasting
- Guide business planning
- Enable and guide new product development decisions.

Selected key findings

Analysis of Average Purchase Quantity

- Understanding the average purchase quantity chosen by shoppers can provide insights into shopper preferences and opportunities to increase sales returns.
- For vegetables where large quantities are typically purchased (e.g. pumpkin and cauliflower), it is advantageous to have an offer that also provides smaller quantities, so as to not limit sales to full or larger shops.
- Shoppers are often prepared to pay a higher price per kg for smaller purchase quantities, suggesting there may be opportunities to diversify the current product range further, to meet demands for smaller portion sizes.
- Suppliers and marketers should assess any significant gaps in the pre-pack offer, and look for opportunities to add greater value by offering shoppers quantities that meet their preferred size.

Australian Market – Veginsights Tracking Indicators – Q1 12

- While wholesale vegetable prices increased moderately over the quarter they were quite a lot lower than at the same time last year, as supply volumes were rebuilt.
- The retail channel remains very competitive and fresh produce remains a key focus. This is reflected in the level of promotional activity over the quarter.
- Promotions reflected demand at this time, which moved from salad components toward hard cooked vegetables over the later part of the quarter, in line with seasonal patterns.
- Top up shops are becoming increasingly common over time. Vegetable products need to suit being purchased on frequent and smaller shopping trips.

Please contact **Martin Kneebone** at martin@freshlogic.com.au with any queries regarding the report's content.

This project has been funded by HAL using the National Vegetable Levy and matched funds from the Australian Government. It forms part of the VIDP and aims to inform vegetable producers and supply chain stakeholders on market influences and developments in the past quarter. We recommend that those seeking to act on the basis of this information first obtain independent professional advice.

Analysis of Average Purchasing Quantity

Findings

Average Purchase Quantity - Ranking

The average purchase quantity varies greatly across different vegetables and appears to be influenced by product density, shelf life, unit size and most likely the diversity of uses.

Average Purchase Quantity vs. Household Penetration Levels

The relationship between average purchase quantity and average household penetration varies across vegetables and can indicate opportunities for increasing sales, through increased household penetration, increased purchase quantities and/or increased frequency of purchase.

Average Purchase Quantity vs. Retail Price

In general, there is an inverse relationship between the average purchase quantity and average retail price. It is often easier to gain a higher retail price on products that have a lower average purchase quantity for a variety of reasons.

Case Study: Pre-Pack Quantity vs. Loose Quantity Selected

Understanding the differences between purchase quantities for loose products can help determine a suitable size for a pre-pack offer.

Implications for vegetable producers and marketers

- Understanding the average purchase quantity chosen by shoppers for a particular vegetable, as well as the quantity chosen for complementary and competing products, can provide valuable insights into shopper preferences and opportunities to increase sales returns.
- In particular there may be an opportunity where household penetration is low, but the average purchase quantity is quite high. Here, there may be opportunities to increase household penetration with smaller portions to encourage more frequent purchases.
- For vegetables where large quantities are typically purchased, it is advantageous to have an offer that also provides smaller quantities, so as to not limit sales to full shops, which account for only one third of all shopping trips made.
- Shoppers are often prepared to pay a higher price per kg for smaller purchase quantities – suggesting there may be opportunities to diversify the current product range further, to meet demands for smaller portion sizes.
- Further, products that provide a known price, as is the case when sold in pre-pack or by the 'each', can support easier decision making for shoppers and may allow for a higher per kg price to be generated.
- Suppliers and marketers should assess any significant gaps in the pre-pack offer, and look for opportunities to add greater value by offering shoppers quantities that meet their preferred size.

1.0 Key findings and implications – Q1 12 (continued)

Australian Market – Veginsights Tracking Indicators – Q1 12

Findings

1. Household spend on fruit and vegetables lifted over the quarter, supported by stronger demand for fresh fruit. Spend on take home food remains consistent with the previous quarter, after coming off a peak in Q2 2011.
2. In Q1 12 retail sales of all vegetables were lower than the previous quarter and 7.3% down on the same first quarter in 2011.
3. The ABS total annual food inflation was -2.5% in Q1 12, and was largely influenced by falling fruit and vegetable prices.
4. Overall, wholesale prices increased moderately over the quarter, but eased considerably compared to the same quarter in the previous year.
5. The number of vegetables products advertised increased by 14% over the quarter, reflecting the competitive intensity within the retail channel and seasonal influences.
6. In Q1 2012 fresh vegetable advertising reflected an initial focus on salad components, followed by a stronger focus on hard cooked vegetables reflecting a seasonal shift as the weather cooled.
7. Over the quarter, the use of cooking preparation increased, while the use in salads eased, in line with seasonal patterns as cooler weather approaches.
8. Over the quarter, 86% of households reported purchasing fresh vegetables on a weekly basis.

Implications for vegetable producers and marketers

- The tight retail competition together with the seasonal decline in home entertainment can make the March quarter a challenging time in terms of achieving sales targets. Further, vegetable consumption can also be impacted by high fruit consumption at this time, when many seasonal fruits come into peak supply.
- While wholesale vegetable prices increased moderately over the quarter they were quite a lot lower than at the same time last year, as supply volumes were rebuilt, and this was reflected in ABS inflation figures.
- The retail channel remains very competitive and fresh produce remains a key focus. This is reflected in the level of promotional activity over the quarter. Promotions were mixed and reflected the changing weather, with increases recorded for all vegetable categories.
- Promotions reflected demand at this time, which moved from salad components toward hard cooked vegetables over the later part of the quarter, in line with seasonal patterns.
- In line with seasonal patterns, use of cooking increased as salads decreased.
- While household penetration for vegetables remained strong over the quarter, there was an increase in household penetration in fruit, which can create a level of substitution between fruit and vegetables.

1.0 Key findings and implications – Q1 12 (continued)

Findings

9. Carrots were the most popular vegetable purchased weekly by households in Q1 12. Over the quarter, a slightly smaller proportion of households are undertaking more than 6 food buying trips per week.

10. Appearance, seasonality and promotions were the main reasons households purchased 'more' vegetables over the quarter. Purchase patterns show that 19% of consumers have been influenced to buy less and 11% to buy more vegetables.

Implications for vegetable producers and marketers

- The popularity of carrots reflects their seasonal demand, supported by promotions.
- Despite a very small decrease this quarter, top up shops are becoming increasingly common over time. Vegetable products need to suit being purchased on frequent and smaller shopping trips.
- If the reasons why 19% of households buy less vegetables can be understood and their negative impact reduced, this action could increase vegetable sales.
- Similarly, with appearance and seasonality having a strong influence on the 11% of households who purchased more vegetables, this highlights the importance of these factors in increasing consumption and sales.

2.0 Analysis of Purchasing Quantity

This section provides an analysis of the average purchase quantity of selected vegetables and considers the following factors:

- Comparative ranking
- The relationship between average purchase quantity and average household penetration
- The relationship between average purchase quantity and average retail price
- A comparison between the average 'loose' quantity for selected vegetables and the respective pre-pack offer.

This analysis incorporates key implications arising from the findings.

Overview

The retail sales value of a vegetable is influenced by the average weekly penetration (i.e. the proportion of households who are regularly purchasing a particular vegetable), the quantity they buy, the purchase frequency (e.g. 2 times a week), and the price they pay. Changes in any one of these factors can influence overall sales at a retail level.

Therefore, analysis of the average purchase quantities of selected vegetables can provide important insights.

Comparing the average purchase quantity across vegetables helps identify features that influence consumers to buy larger or smaller quantities of particular vegetables – including shelf life, unit size and diversity of uses.

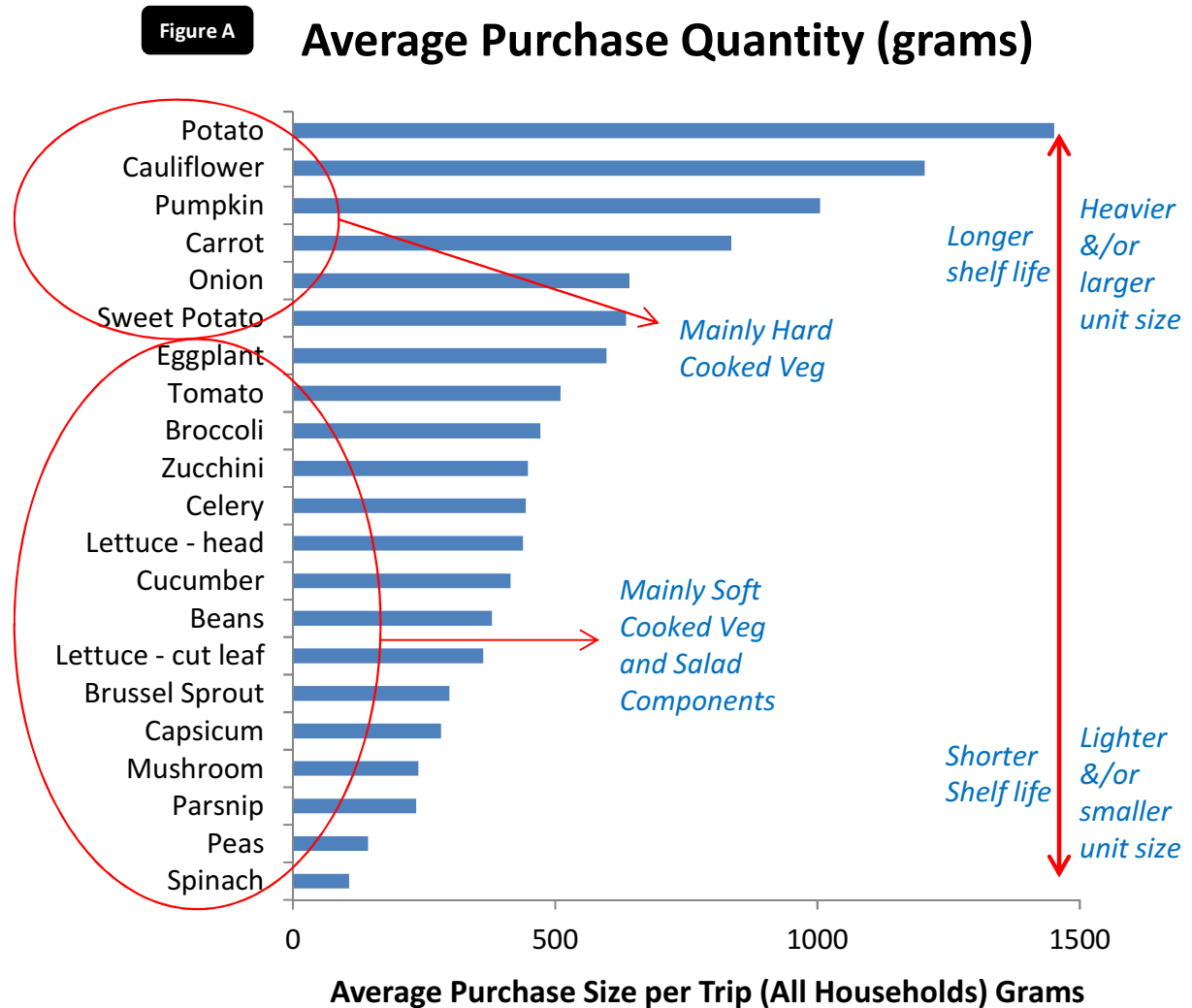
Exploring the relationship between the average purchase quantity and the retail price, can indicate opportunities for potential growth.

Considering the difference between the quantity shoppers purchase in loose form and the pre-pack offer can also indicate opportunities.

2.1 Average Purchase Quantity - Ranking

Average Purchase Quantity - Ranking

- Figure A profiles a range of fresh vegetables and the associated average purchase quantity – that is, the average quantity purchased on a single shopping trip. This takes into account purchases of all product forms including loose product and pre-packed.
- The chart highlights the wide range in average quantity, which appears to align with a variety of factors including; the weight/density of the vegetable, unit size and shelf life.
- The hard cooked vegetables of potato, pumpkin, carrot and sweet potato have a higher average purchase quantity, influenced by vegetable weight/density and shelf life.
- Onions also have a relatively high average purchase quantity, driven by a wide range of uses and a relatively long shelf life.
- Soft cooked vegetables and salad components are spread across the remainder of the chart – depending on density, typical unit size (e.g. cucumbers sold by the 'each') and shelf life.
- When the diversity of uses are considered, all indications are that it will have an influence on purchase quantity. It is expected that consumers will be more comfortable buying a larger quantity of a particular vegetable where it has a more diverse range of uses on the household menu.



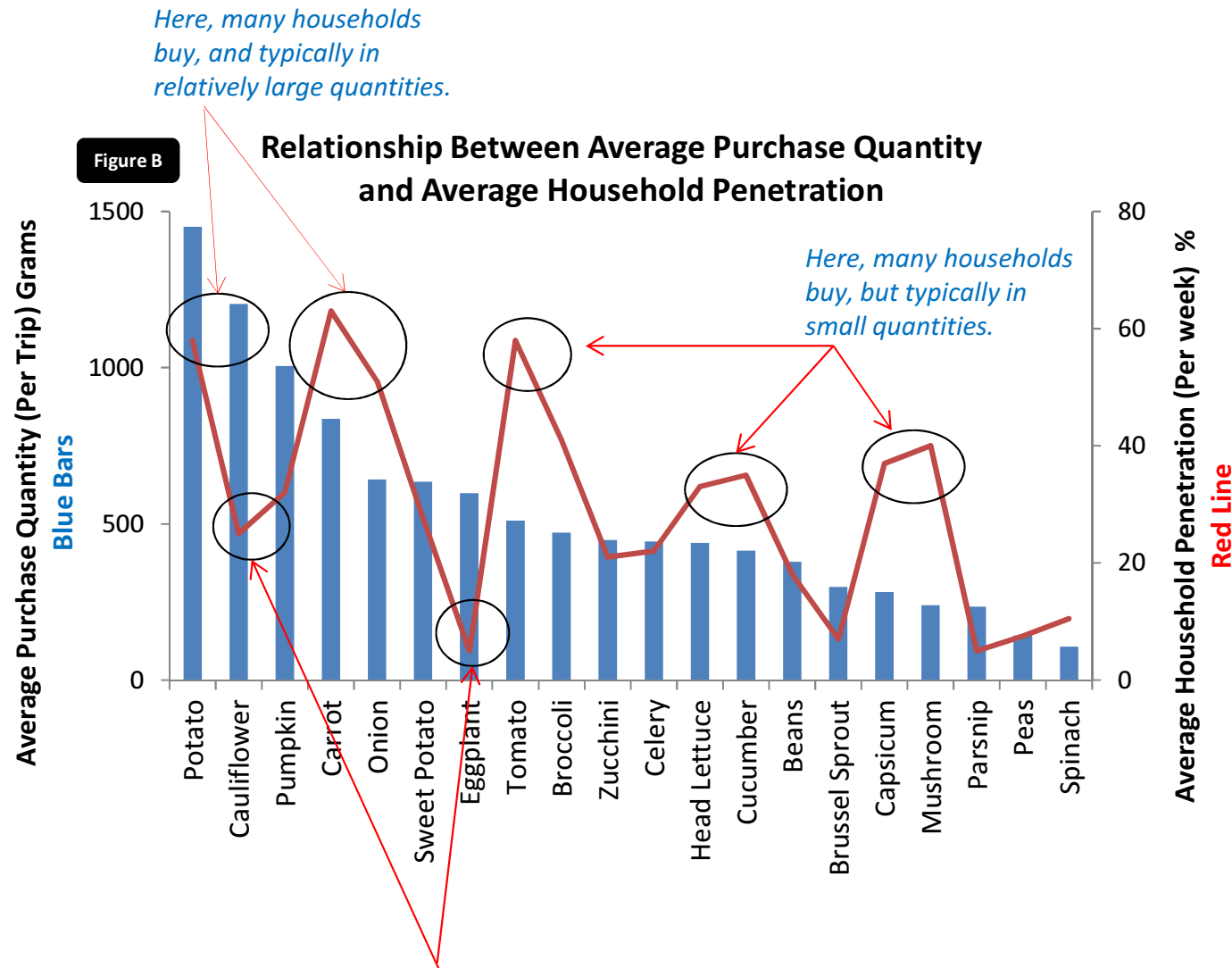
The average purchase quantity varies greatly across different vegetables and appears to be influenced by product density, shelf life, unit size and most likely the diversity of uses.

2.2 Purchase Quantity vs Household Penetration

Average Purchase Quantity vs Household Penetration Levels

- Figure B illustrates the relationship between the average purchase quantity and average household weekly penetration. The relationship clearly varies between vegetables.
- For example, around 65% of households purchase carrots each week and these shoppers purchase an average of 830-840 grams per trip. This is influenced by loose and pre-pack purchases.
- Vegetables purchased in smaller quantities are more suited to a 'top-up' shop, which typically involves a basket and is subject to size/weight considerations.
- Where large quantities are typically purchased, it may be advantageous to have an offer that allows for smaller quantities, so as to not limit sales to full shops, which only account for one third of all shopping trips made.
- Where household penetration is high but purchase quantities low, the challenge is to increase the average quantity purchased and/or the frequency of trips, in order to increase sales volumes.

The relationship between average purchase quantity and average household penetration varies across vegetables and can indicate opportunities for increasing sales, through increased household penetration, increased purchase quantities and/or increased frequency of purchase.



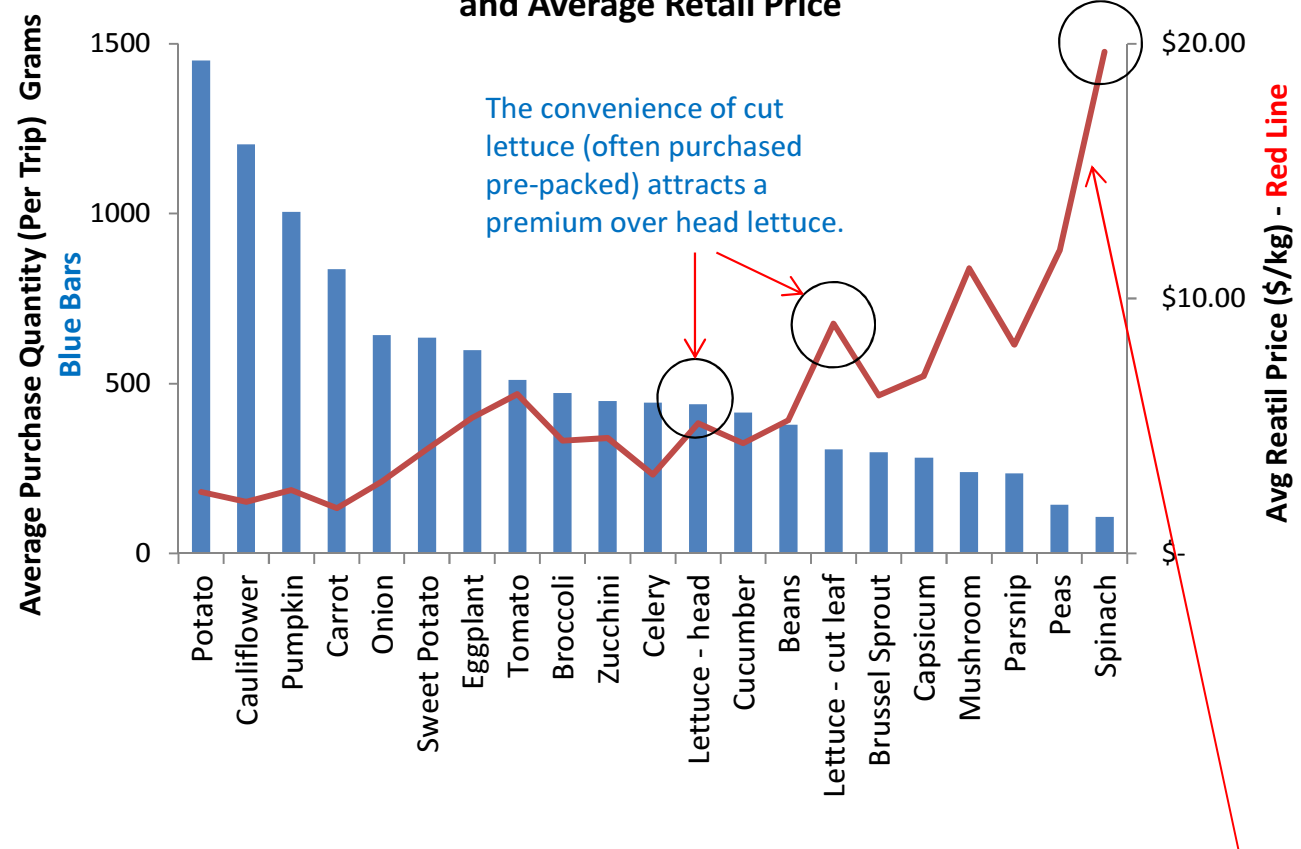
2.3 Purchase Quantity vs Retail Price

Average Purchase Quantity vs Retail Price

- Figure C illustrates the relationship between average purchase quantity and average per kg retail price.
- While there are exceptions, in general there is an inverse relationship: higher average purchase quantities typically have a lower average retail price, and small quantities a higher average price.
- Keep in mind that this information incorporates a combination of loose and pre-pack product, and is influenced by the unit size, and at times the marketing of the different products. For example, pre-packed tomatoes typically attract a premium, while pre-packed onions generally do not.
- When purchasing low quantities, shoppers are often less concerned about the per kg price, as the total amount they will pay is still quite small. Further, where a set price is visible (as in many pre-packs) it offers an easier buying decision, as the purchase price is known.
- Smaller purchase quantities may also be preferred where this means less home waste.
- All indications are that it is harder to generate a higher retail price (\$/kg) for products with a higher average purchase quantity.

In general, there is an inverse relationship between the average purchase quantity and average retail price. It is often easier to gain a higher retail price on products that have a lower average purchase quantity for a variety of reasons.

Figure C



2.4 Purchase Quantity

Pre-Pack Quantity vs Loose Quantity

- Figure D compares the size of the average quantity purchased in pre-pack form versus a loose form, for 5 products. Understanding what a consumer seeks to buy in loose form can provide insight into the ideal size for a pre-pack offer.
- However, strategies can differ with some promoting pre-pack product as 'value-for-money', while others promote it as a premium product, offering assured quality and convenience attributes.
- Further, many vegetable uses are diverse and shoppers may purchase pre-pack and loose for different purposes. With some vegetables, both forms can be purchased on the same shopping trip.

Figure D

Product	Size Factor: Size of pre-pack vs. loose selection
Carrots	2.0
Potatoes	2.5
Celery	2.8
Beans	1.4
Lettuce	0.7



Here, the average purchase quantity for a pre-packed product is **bigger than what shoppers select in loose form**. For example the average quantity of **carrots** purchased in pre-pack form is twice the size (x2) of what shoppers choose when the product is loose. For **potatoes** it is more than twice the size (x2.5).



For the purpose of this analysis, loose **celery** encompasses pieces (in loose), while the pre-pack offer includes bunch, whole or half.



In contrast, the average quantity of a pre-pack purchase for **lettuce** is smaller than the quantity chosen when the product is sold loose (note: "loose" here includes "head lettuce").

Both pre-pack and loose lettuce is generally used as a salad base. While head lettuce offers good value, as it may be contribute to multiple salads, it may lead to waste if only one salad is required. It also requires preparation in washing, cutting and storing.

However, a pre-pack generally offers a smaller quantity, and may suit a smaller household and/or those seeking to reduce waste. Many pre-packs offer reduced preparation being pre-cut and washed.

Understanding the differences between purchase quantities sought for loose products can help determine a suitable size and pre-pack offer.

3.0 Vegetable Market Trends

The section reviews market performance for the first quarter of 2012

This section includes consideration of the following:

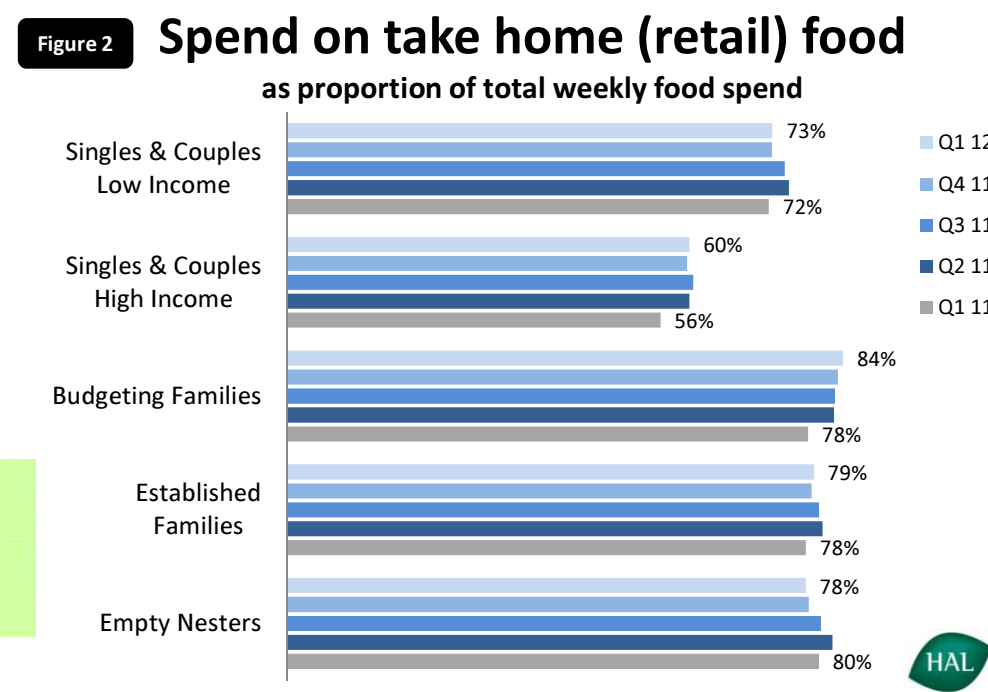
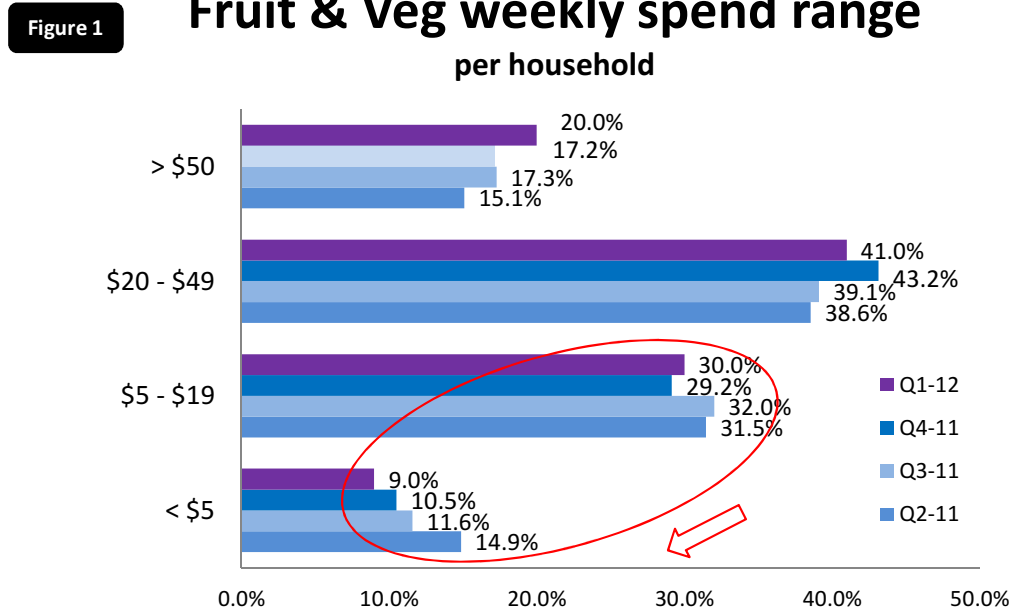
- Household spend on fruit and vegetables
- Market size and contribution
- Food and vegetable inflation
- Wholesale vegetable market price trends
- Vegetable retail promotional activity
- Vegetables purchased and preparation method
- Fresh vegetable buying patterns
- Most popular purchased vegetables and shopping trip patterns
- Vegetable buying trends and reasons for buying

3.1 Household spend on fruit and vegetables

Household spend on fruit and vegetables

- In Q1 12, the average household weekly expenditure on fresh fruit and vegetables was \$31.50 per household (compared to \$30.20 in the previous quarter). This higher spend has been influenced by stronger demand for fresh fruit, which is typical at this time of the year.
- As profiled in Figure 1, the range of spend per household varies substantially from <\$5 to >\$50 per week. In Q1 12, 0.6% of households moved out of the two lower spend categories into the higher spend categories. In all, 39% of households spent less than \$20 per week on fruit and vegetables, while 61% of households spent \$20 or more per week on fruit and vegetables.
- Figure 2 indicates that expenditure on take home food, i.e. food purchased at retail to be prepared at home, is currently 76.5% of total household food spend, consistent with the previous quarter (76.5%), but higher than in the same quarter last year (74.9%).
- Compared to the previous year, most household segments have shown a small increase in the proportion of their total food spend allocated to take home food, while Empty Nesters are spending slightly less.
- Since 2008 the proportion of spending on take home food has continued to increase, but reached a peak in Q2 2011 and has since eased. This implies that households are content with the value they have captured (supported by lower inflation) and/or that they wish to maintain some level of eating out.

1. Household spend on fruit and vegetables lifted over the quarter, supported by stronger demand for fresh fruit. Spend on take home food remains consistent with the previous quarter, after coming off a peak in Q2 2011.



3.2 Market size and contribution

Total vegetable sales

- Total retail vegetable sales in Q1 12 for all fresh, frozen and canned vegetables were \$1.67 billion as profiled in Figure 3.
- This sales level was an expected seasonal decrease of \$139.5 million or 7.7% on the previous quarter, which is attributed to strong retail competitor intensity, and an easing in formal home entertainment (which is common in the lead up to Christmas).
- These sales were \$131.6 million or 7.3% lower than the same quarter in 2011 and is attributed to declining wholesale prices, which were notably lower than at the same time in the previous year.
- In addition to retail sales, it is estimated that 58,000 tonnes of fresh vegetables were sold to the foodservice sector in Q1 12. This was lower than the previous quarter due to less holiday season sales.



Fresh vegetable category sales contribution

- The quarterly category level contribution profiled in Figure 4 reflects the shift to the full summer mix of vegetables.
- This shift is reflected in a transfer of 3.0% of sales contribution towards salad components and a corresponding decreases of -2.0% in soft cooked vegetables and -1.0% in hard cooked vegetables compared to last quarter of Q4 -11.

2. In Q1 12 retail sales of all vegetables were lower than the previous quarter and 7.3% down on the same first quarter in 2011.

Figure 3

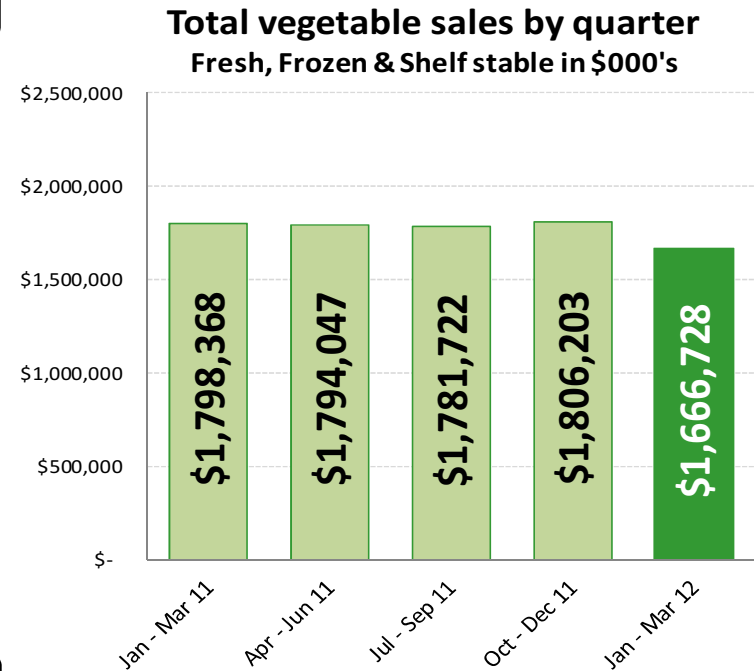
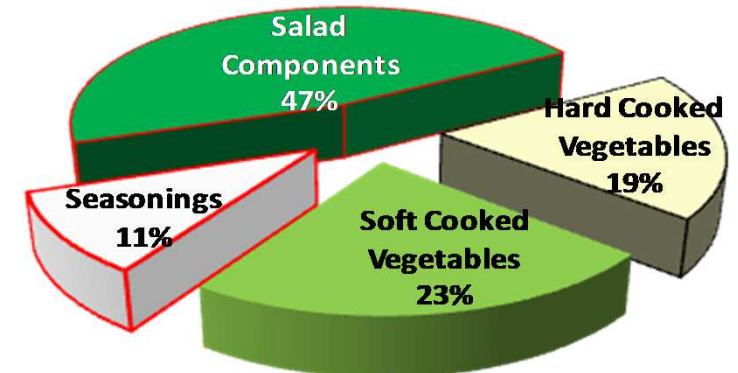


Figure 4

Fresh vegetable sales contribution by category Q1 -12



3.3 Food and vegetable inflation

Food inflation

- Food inflation, as reported by the ABS, was -2.5% in Q1 2012.
- This compares to 2.5% reported in the previous quarter, and 4.3% at the same time last year (see Figure 5).
- In Q1 12, the total food inflation was influenced most significantly by fruit and vegetables prices. Fruit prices decreased by 24.0% (compared to Q1 12), contributing -1.5% toward the total food inflation of -2.5%; while vegetable prices decreased by -17% (compared to Q1 12) contributing -1.3% towards the total food inflation.
- In comparison, meals out and takeaway rose 2.9% compared to the same time in the previous year and contributed 0.9% to total inflation.
- This is the second consecutive quarter where vegetable deflation (negative inflation) was recorded.



3. The ABS total annual food inflation was -2.5% in Q1 12, and was largely influenced by falling fruit and vegetable prices.

Figure 5

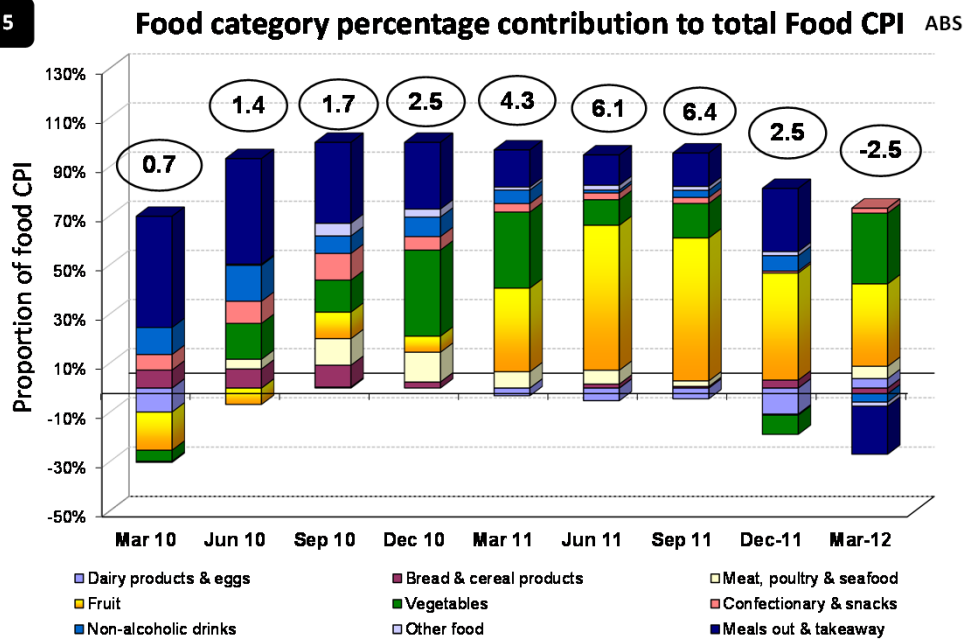
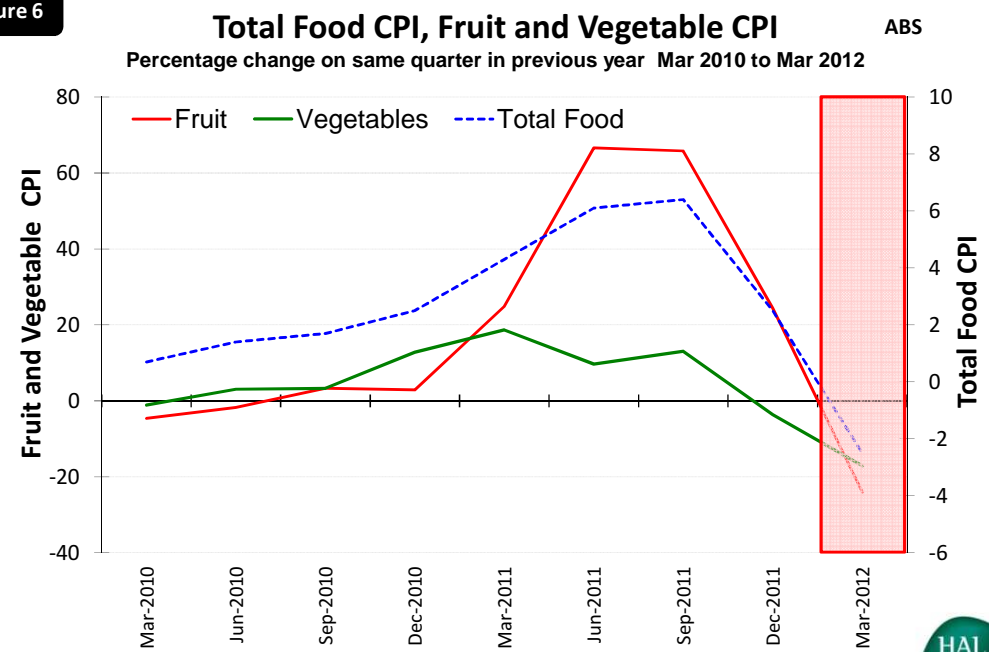


Figure 6



3.4 Wholesale vegetable market price trends

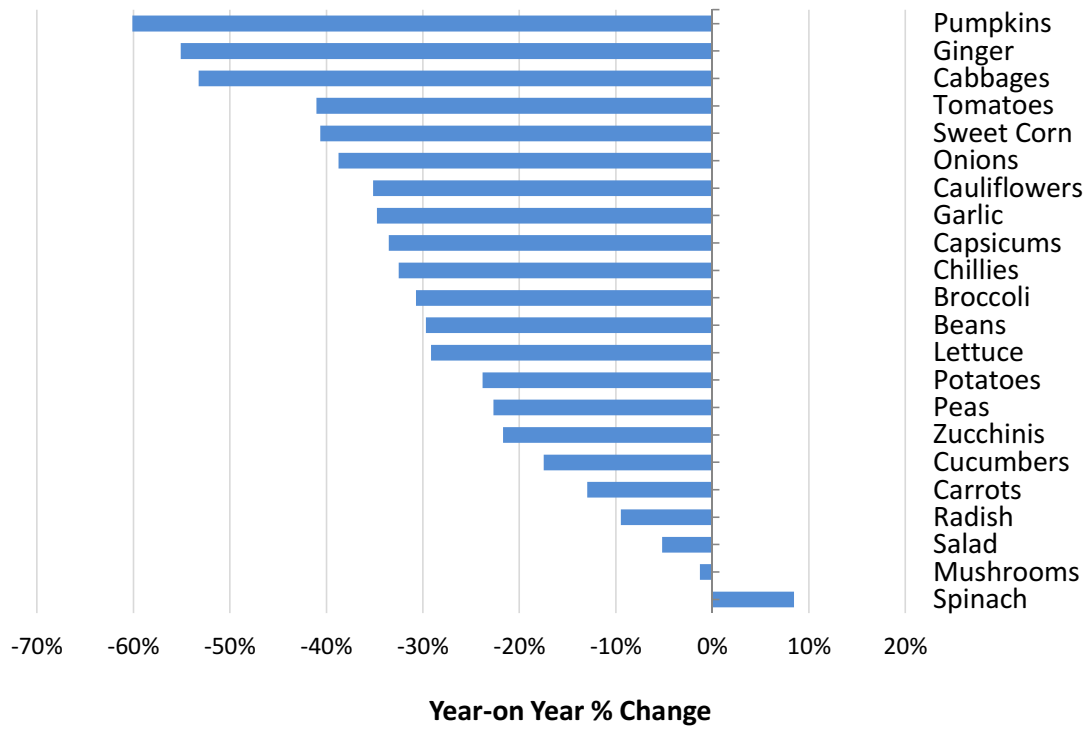
Wholesale prices

- The wholesale vegetable price trends (per kg) are based on a model that weights the range of vegetable products from the five main wholesale markets.
- The trend for Q1 12, which ran from the week commencing 2 January to 26 March 2012, reflects an increase in prices with the average price over the period 6% higher than in the previous quarter. This was influenced by temporary supply shortages and logistical challenges resulting from state-based weather events.
- However prices have eased compared to the same quarter in the previous year (see Figure 7), with the average price 21% lower than at the same time last year.
- Almost all vegetables experienced a decline in prices over the year, and in particular pumpkin, ginger and cabbages, while spinach experienced a moderate increase in prices over this period.
- Over Q1 12, the major holidays affecting demand included New Years Day, Australia Day and Labour Day in some states. Further, school holidays and traditional work holidays occurred during January, and major sporting events such as the Grand Prix and Australian Tennis Open also took place during this period.

Figure 7

State weighted national wholesale price per kg

Change for Q1 2012 vs Q1 2011



4. Overall, wholesale prices increased moderately over the quarter, but eased considerably compared to the same quarter in the previous year.

3.5 Vegetable retail promotional activity

Retail promotional activity

- The promotional activity by retailers that featured vegetables increased by 14% to 3,192 products for Q1 12, compared to the previous quarter. Retail advertising increased following a slowdown over Christmas period and fluctuated a little over the remainder of the period.
- On average, 246 vegetable products were advertised in the five main states each week in Q1 12, compared to 216 lines per week in the previous quarter.
- The increase in promotional activity over Q1 12 was driven by fresh and canned promotions which increased 20% and 17% respectively compared to the previous quarter. Frozen vegetable promotions increased a modest 4%.
- In all, 43% of total frozen vegetable promotions were for frozen potatoes.
- Over the quarter, frozen vegetables contributed 30% of total adverts, while canned vegetables contributed 16%. Adverts for fresh produce remains prominent, contributing 55% (up from 52% in the previous quarter).
- Within the fresh vegetable category, the strongest drivers of growth were hard cooked by (up 34% compared to the previous quarter) and seasonings (up 64%).
- Promotions for salad components increased 10% compared to the previous quarter, and contributed almost one quarter of all vegetable promotions in Q1 12 (see Fig 9). The contribution of hard cooked vegetables was 15%, soft cooked vegetables 11% and seasonings 5%.
- The overall increase in promotional activity during the quarter reflects the ongoing level of competitive intensity within the retail channel and seasonal influences.
- The continued strength of frozen vegetables adverts corresponds to the longer term growth in the use of frozen vegetables by households (see p. 19).

5. The number of vegetables products advertised increased by 14% over the quarter, reflecting the competitive intensity within the retail channel and seasonal influences.

Figure 8

Type of advert October 2011 - March 2012

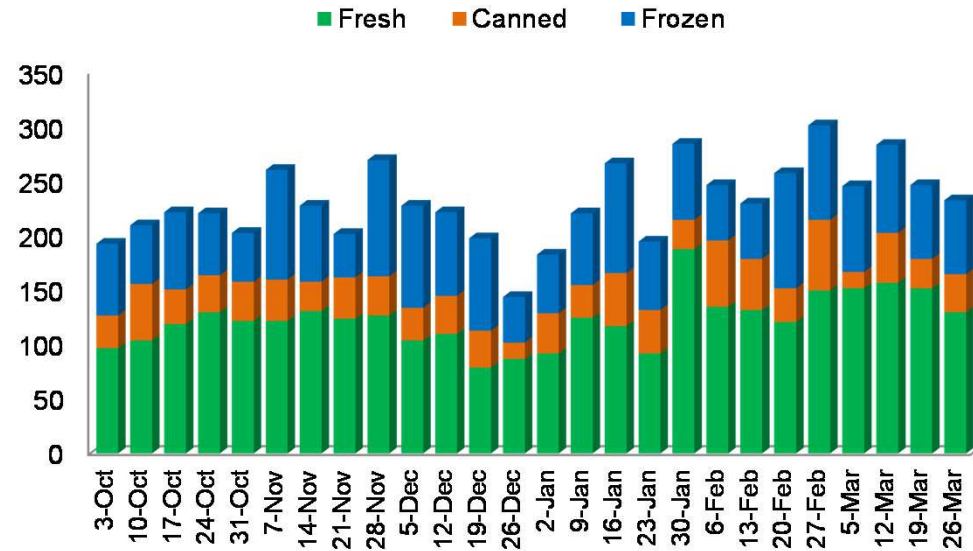
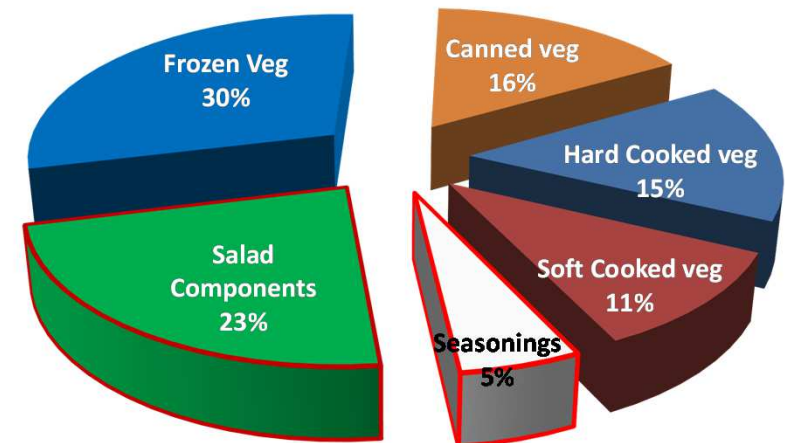


Figure 9

Advertised vegetable products

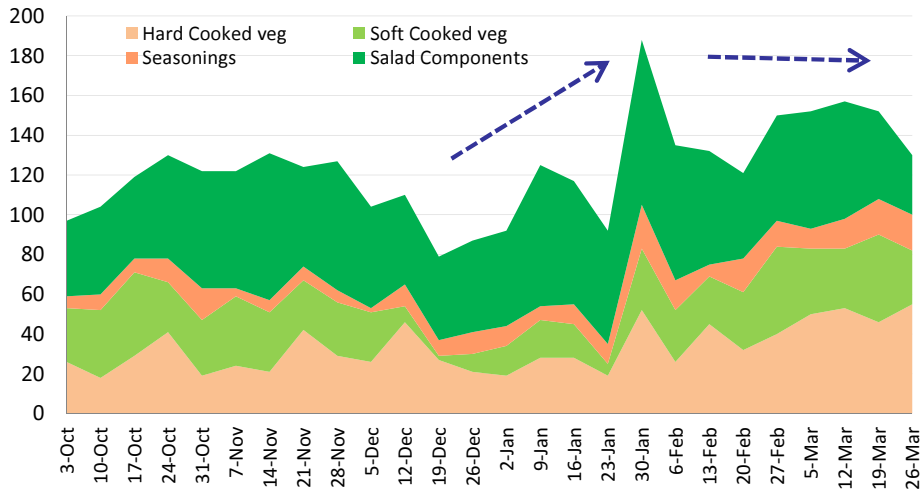
3,198 adverts by category - Q1 - 12



3.5 Vegetable retail promotional activity (continued)

Figure 10

Number of Advertised Fresh Vegetable Products
October 2011 - March 2012



Trends:
Q4 11 and Q1 12

- The type of product advertised in Q1 12 reflects a continued focus on salad components, particularly over the first half of the quarter, combined with a move towards hard cooked vegetables towards the end of the quarter.
- At a product level this was most evident in strong promotion of tomatoes and lettuce, together with potatoes.

Figure 12

Number of Advertised Soft Cooked Veg
October 2011 - March 2012

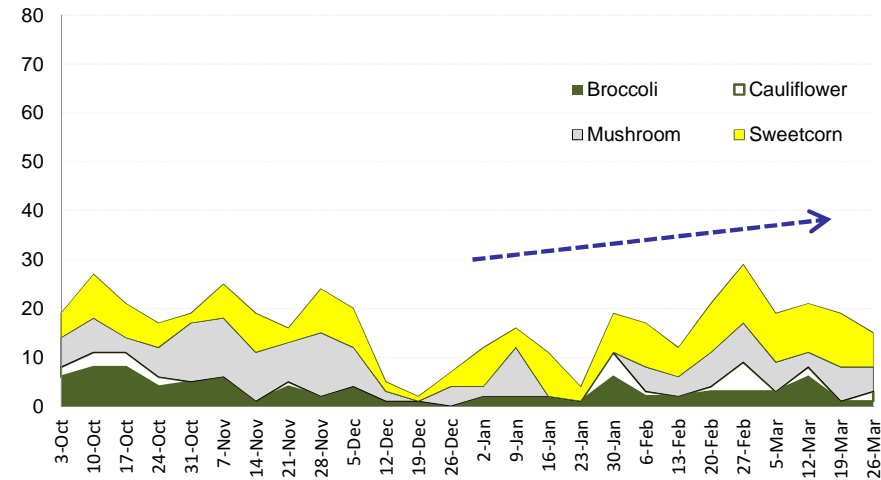


Figure 11

Number of Advertised Hard Cooked Veg
October 2011 - March 2012

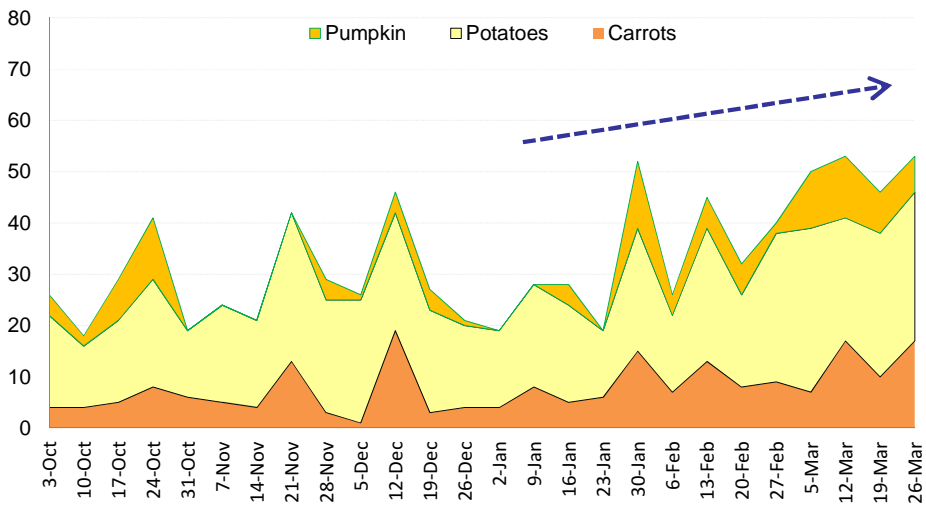
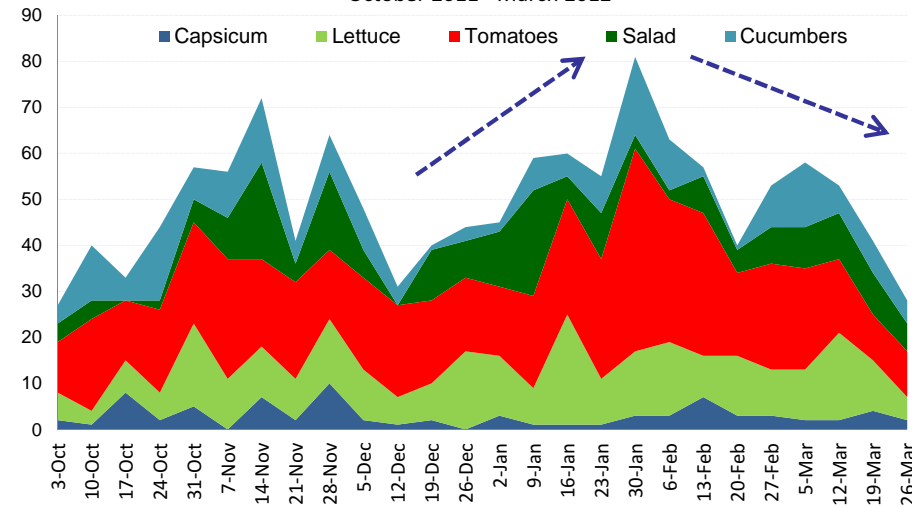


Figure 13

Number of Advertised Salad Components
October 2011 - March 2012



6. In Q1 2012 fresh vegetable advertising reflected an initial focus on salad components, following by a stronger focus on hard cooked vegetables reflecting a seasonal shift as the weather cooled.

3.6 Vegetables purchased and preparation method

Participation by vegetable form

- Figure 14 profiles the proportion of households that purchased vegetables in frozen, canned, and fresh forms in Q4 11 and Q1 12.
- Compared to the previous quarter, more households purchased fresh products, which may have been supported by promotional advertising. There was no change in the proportion of households purchasing canned products. The number of households purchasing frozen products eased slightly, although the longer term trend still indicates ongoing growth in the frozen category.
- Compared to the previous year, the proportion of households who purchased fresh and frozen products has increased slightly, while those who purchased canned products declined slightly.

Vegetable preparation

- Cooking, which includes steaming, boiling, roasting and stir frying, remains the dominant method of preparation, with 89% of households using this method in Q1 12. The use of cooking increased slightly over the quarter, which may reflect the cooler/wetter summer experienced in some states.
- In contrast, the use of salads decreased to 63%, compared to the previous quarter when 66% of households used this method and is a reflection of seasonal factors, availability and promotions at this time.
- The proportion of households who reported eating vegetables raw (41%) decreased compared to the previous quarter (44%).

7. Over the quarter, the use of cooking preparation increased, while the use in salads eased, in line with seasonal patterns as cooler weather approaches.

Figure 14

Type of vegetables purchased by household

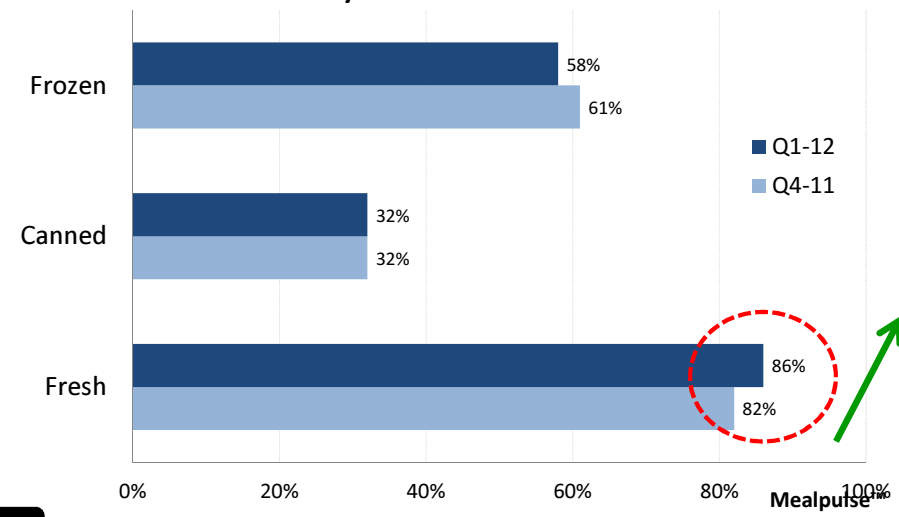
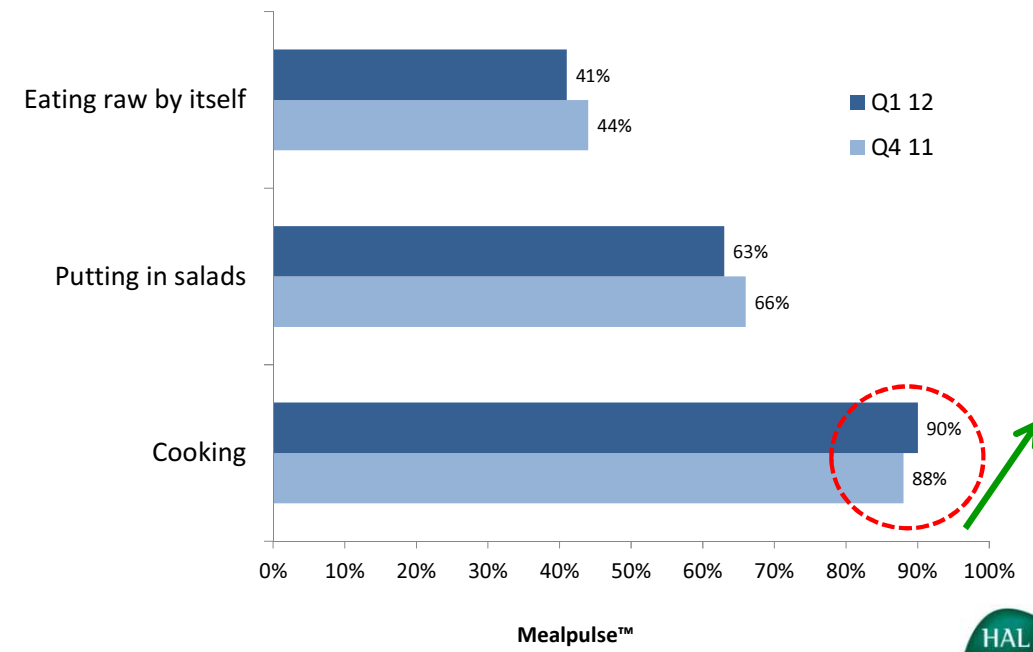


Figure 15

Method of vegetable preparation



3.7 Fresh vegetable buying patterns

Fresh vegetables purchased

- Figure 16 profiles changes in the level of weekly fresh vegetable purchases by gender and household segment in Q1 12 and Q4 11 – that is, the proportion of households who bought any fresh vegetables over the period of a week.
- In Q1 12, the total weekly household penetration increased to 86%, up from 82% in the previous quarter.
- Higher weekly vegetable penetration levels were reported across almost all segments, particularly among Budgeting and Established Families, and Empty Nesters. In contrast, Single and Couples with low income remained consistent with the previous quarter.
- Compared to the same quarter in the previous year, total weekly household penetration increased by 2%, from 84% to 86%.

Fresh vegetables purchased - state-based variations

- Figure 17 profiles the variations in household weekly penetration for fresh vegetable purchasing by state between Q1 12 and Q4 11.
- Compared to the previous quarter, almost all states reported an increase in fresh vegetable purchasing in Q1 12, and was particularly strong in Western Australia, South Australia/Northern Territory, and New South Wales/Australian Capital Territory. In contrast, fresh vegetable purchasing in Queensland remained consistent.
- Compared to the same time last year, many states reported an increase, while Queensland reported a small decrease, and Victoria/Tasmania remained consistent.

8. Over the quarter, 86% of households reported purchasing fresh vegetables on a weekly basis.

Figure 16

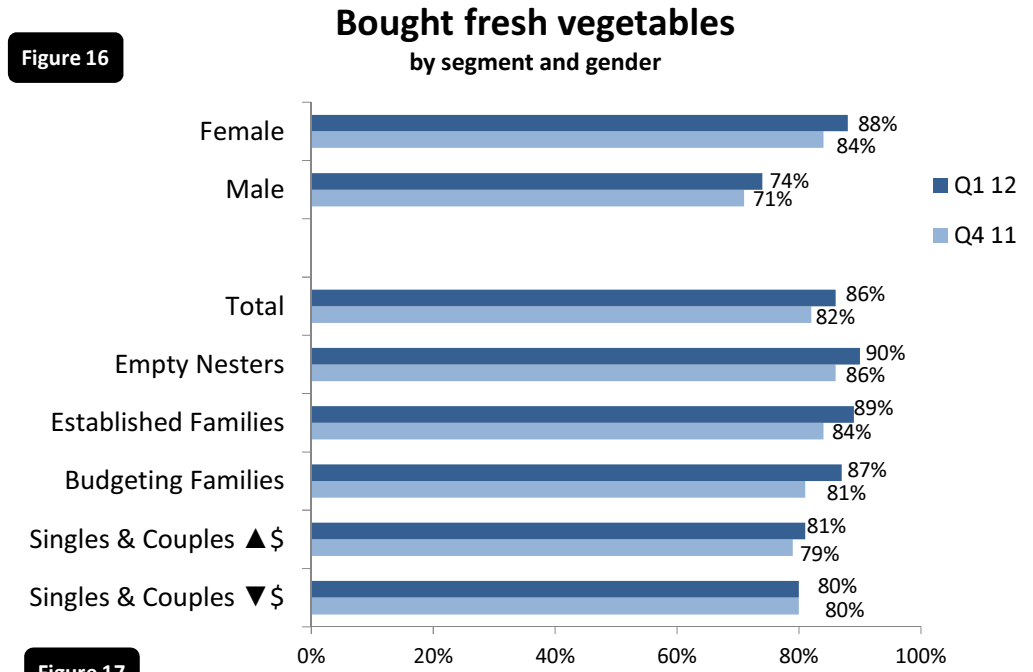
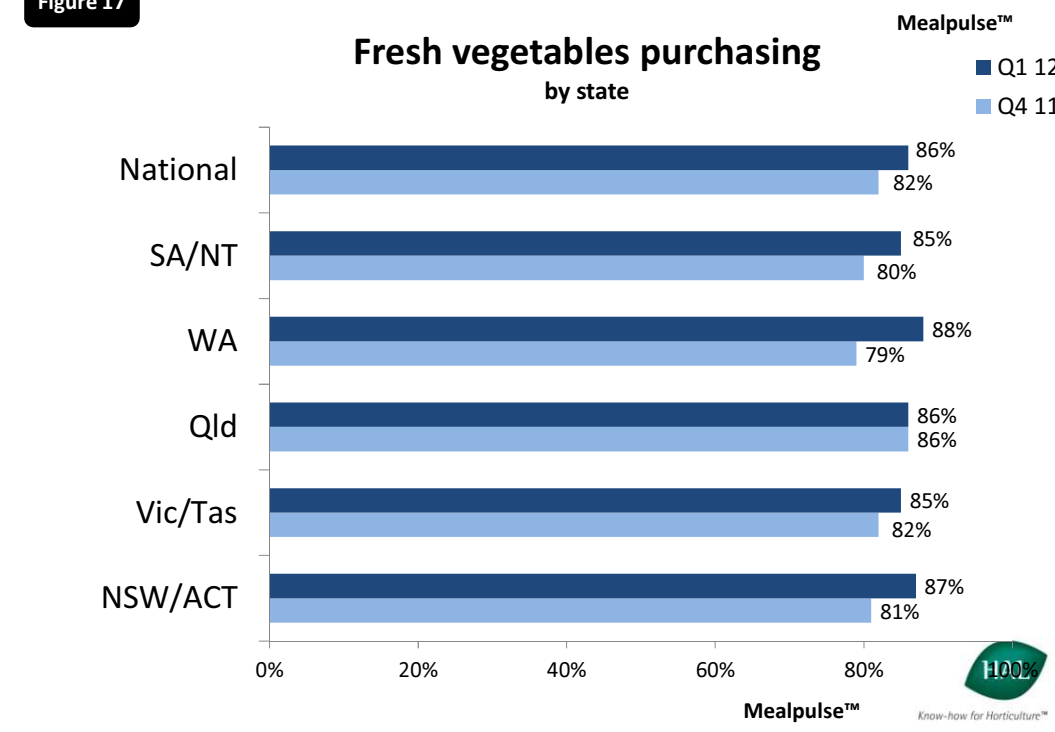


Figure 17



3.8 Most popular purchased vegetables and shopping trip patterns

Most popular vegetable purchased weekly

- Figure 18 profiles the 10 most commonly purchased fresh vegetables in Q1 12, and the respective levels in the previous quarter (Q4 11).
- In Q1 12, carrots were the most popular vegetable, purchased by 63% of households weekly, followed by tomatoes (59%) and potatoes (55%).
- The increase in households purchasing carrots and potatoes reflective of their use as core components during cooler months, as is the increase in households purchasing pumpkins and onions. The cooler-than-expected weather over the March quarter has seen an earlier-than-usual switch to winter vegetables.
- The continued popularity of carrots, potatoes and tomatoes reflects their versatility and most likely the consistent pricing that they provide, as well as the relative affordability that they offer compared to other vegetables.

Shopping trip patterns

- In Q1 12, 47% of households made less than 4 food buying trips per week (to supermarkets and specialists), 34% made between 4 and 6, while the remaining 20% made more than 6 trips per week.
- Compared to the previous quarter, a greater proportion of households are undertaking less frequency trips, with fewer undertaking more than 6 trips per week.
- Despite this small decrease, the long term trend more top up shops continues.

9. Carrots were the most popular vegetable purchased weekly by households in Q1 12. Over the quarter, a slightly smaller proportion of households are undertaking more than 6 food buying trips per week.

Figure 18

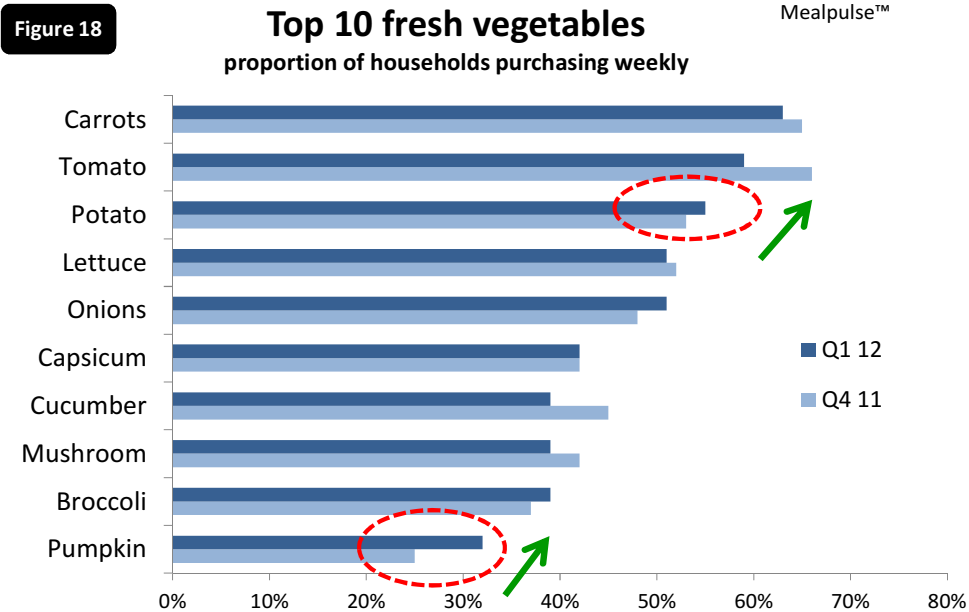
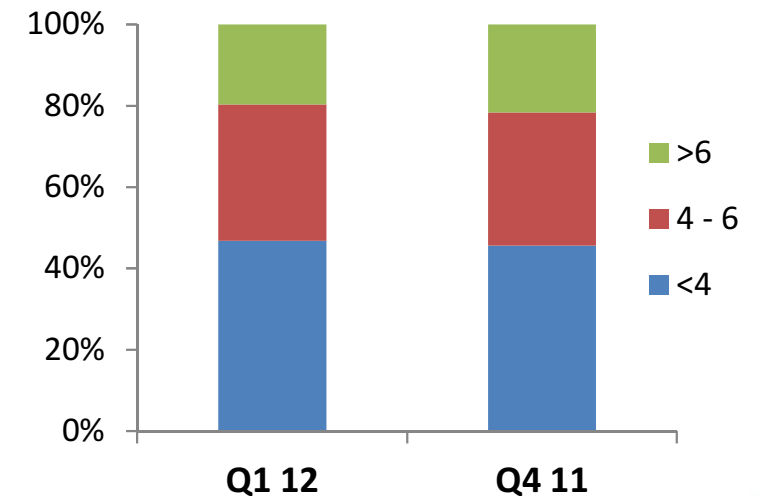


Figure 19

% of Households Making Food Buying Trips



3.9 Vegetable buying trends and reason for buying

Vegetable buying trend

- This section profiles whether those who do purchase vegetables on a weekly basis, purchased 'more' or 'less' than they did in the previous quarter.
- Overall, 73% of households were consistent in their purchasing habits, having reported purchasing the 'same' amount of vegetables this quarter as they did in the previous quarter.
- The changes in vegetable buying over the last 4 quarters reflects common patterns as profiled in Figure 20. Over the 4 quarters, 70% of households continue to buy the same quantity and of the 30% that change, 19% bought less and 11% bought more. This profiles a consumer base where 81% are consistently buying similar or more vegetables. The exposure, in terms of an adverse impact on sales and consumption, is with 19% who are likely to buy less.

Vegetable buying trend reasons

- Figure 21 profiles reasons why households purchased more, less or the same quantity of vegetables as they did in the previous quarter.
- Of the 10% of households who purchased more in Q1 12, 75% reported that being 'in season/looked good' supported their decision, while 53% were encouraged by the fact it was 'on special'.
- Of the 17% of households who purchased less, 24% reported that they did so because it was 'too dear', which is slightly higher than in the previous quarter when 22% reported this as an influence.

10. Appearance, seasonality and promotions were the main reasons households purchased 'more' vegetables over the quarter. Purchase patterns show that 19% of consumers have been influenced to buy less and 11% to buy more vegetables.

Figure 20

Changes in Vegetable Buying

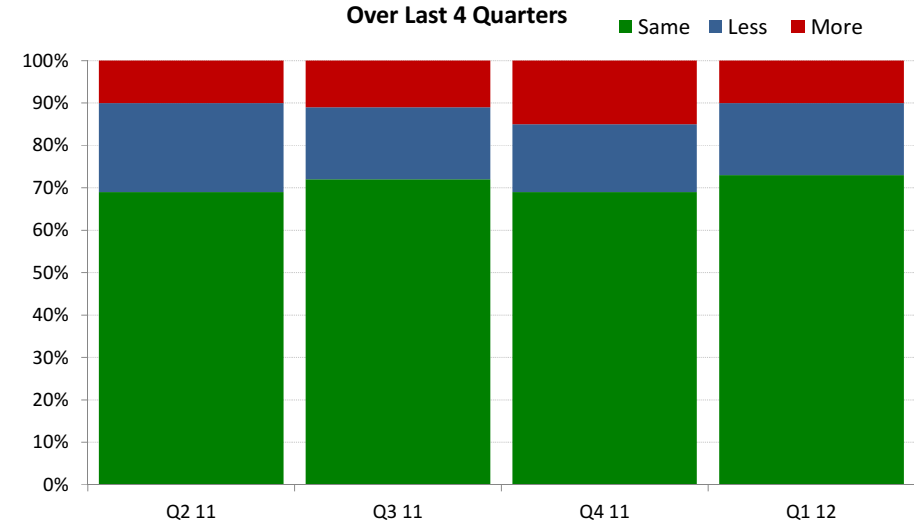
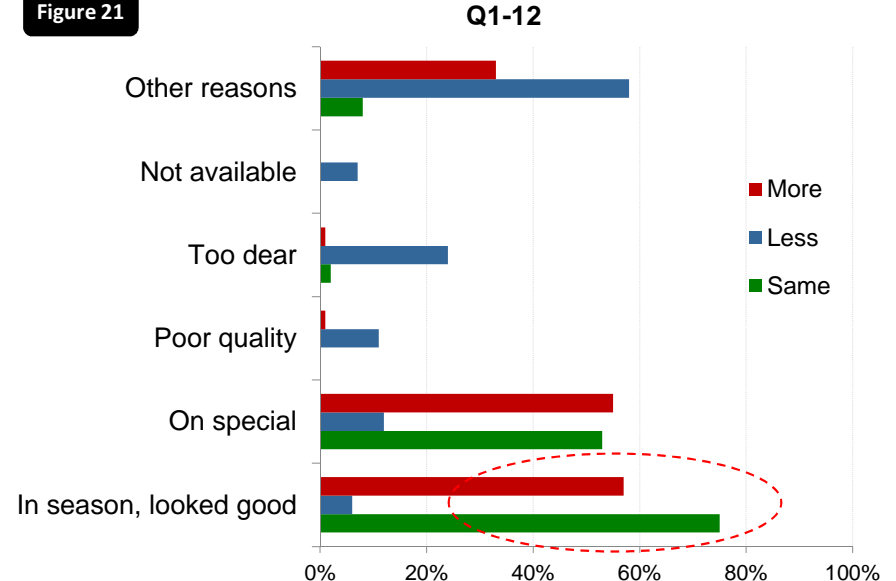







Figure 21

Vegetables buying trend reasons



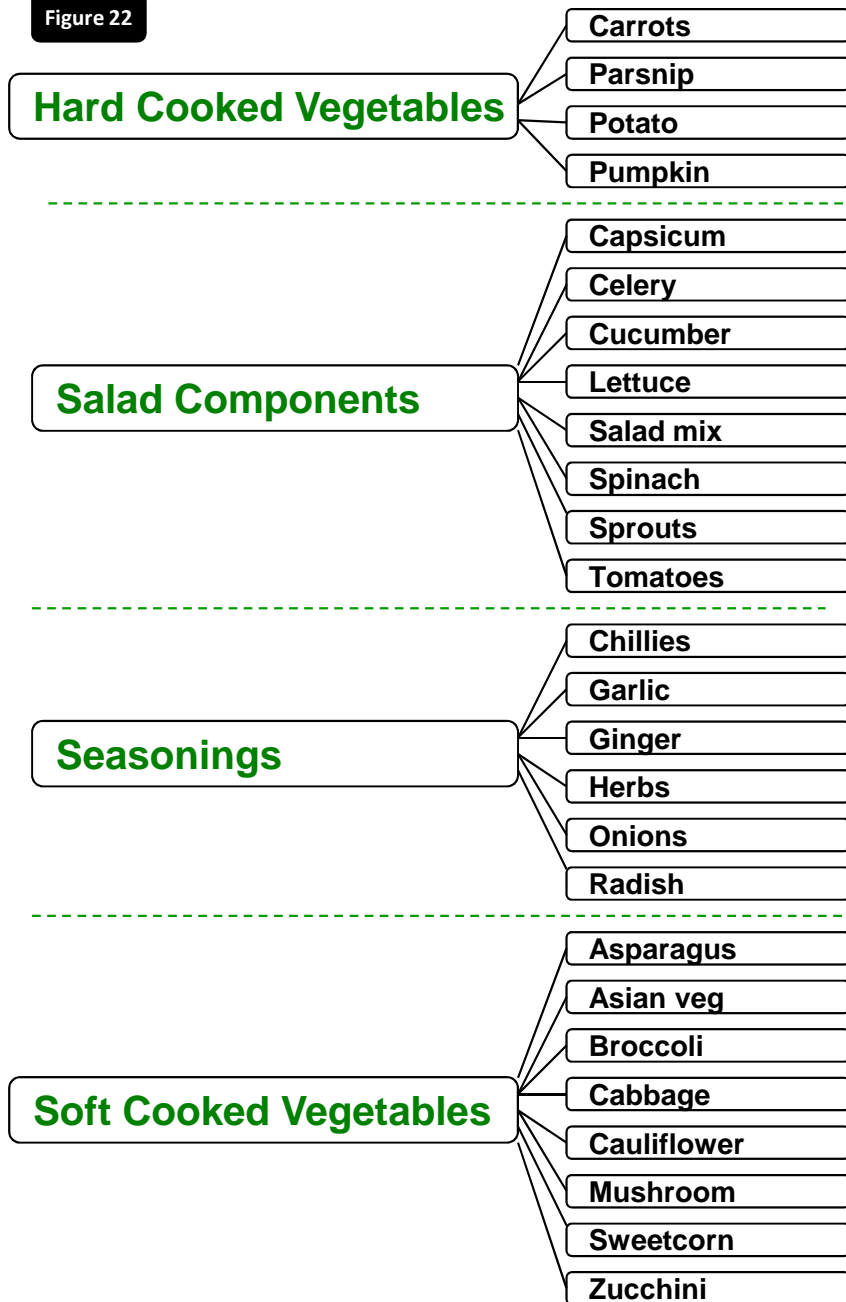
4.0 Summary - Household segments and key characteristics

This table provides a reference, summarising household segments and their key characteristics.

Household Segment	Description	Fresh Vegetable Weekly Household Penetration Q2-11 to Q1-12	Key Characteristics (incl. shopping habits, food spend, retailer patronage, price sensitivity)
 Singles & Couples with Lower Income (S&C▼\$)	<ul style="list-style-type: none"> No children, lower income, eating out restricted by income. 	<ul style="list-style-type: none"> 79%-83% 	<ul style="list-style-type: none"> Does not plan much shopping. Shops on convenience and price. Chooses greengrocer if price is okay. Is constrained by budget. Often has a busy, active lifestyle. Health considerations have some impact on food purchases. 73%-75% of total food \$ spent on food at home. (Q2-11 to Q1-12)
 Singles & Couples with Higher Income (S&C▲\$)	<ul style="list-style-type: none"> No children, higher income and available discretionary dollars, eats out often. 	<ul style="list-style-type: none"> 79%-81% 	<ul style="list-style-type: none"> Does not plan shopping. Likes farmers' markets and ethical foods. Uses greengrocer when has time. Driven by lifestyle demands on time and is a frequent top up shopper. Health influences diet, but taste remains important. Will buy convenience ready meals. 60%-61% of total food \$ spent on food at home.
 Budgeting Families	<ul style="list-style-type: none"> Single and dual parent families with children, financially stretched and time pressured. 	<ul style="list-style-type: none"> 80%-87% 	<ul style="list-style-type: none"> Plans some shopping to manage budget. Top up shops 2-3 times a week. Likes greengrocer. Often has an active lifestyle. Conscious of the food budget. Some health factors influence diet. 82%-84% of total food \$ spent on food at home.
 Established Families	<ul style="list-style-type: none"> Single or couples with children and above average income, at least one adult eats out regularly. 	<ul style="list-style-type: none"> 83%-90% 	<ul style="list-style-type: none"> Plans some shopping but mostly top up shops. Understands and seeks ethical foods. Patronises 1-2 supermarkets. Likes markets and greengrocer. Will buy for taste. 79%-80% of total food \$ spent on food at home.
 Empty Nesters	<ul style="list-style-type: none"> 60 years plus, no children permanently at home, generally have income to eat out often but prepare and eat most meals at home. 	<ul style="list-style-type: none"> 86%-90% 	<ul style="list-style-type: none"> Plans shopping. Seeks out and buys specials. Patronises 2-3 supermarkets. Uses greengrocer on the basis of value. Often sensitive to food prices and budgets. Is influenced by health considerations and ethical foods. Will buy for convenience. 78%-82% of total food \$ spent on food at home.

5.0 Fresh vegetable categories

Figure 22



Vegetable category structure

Based on like or complementary products, the vegetable types are grouped into categories listed in Figure 22, which enables a summary level analysis of all the vegetables.

The categorisation rationale is driven by the inclusions of like product that consumers will trade off and products that are consumed together.