

Horticulture Innovation Australia

Final Report

Mealpulse for Mushrooms

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(AMGA)

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MU09009

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Mushroom Consumption Analysis

Media Summary

This is the Final Report for project MU 09009 *Mushroom Consumption Analysis*, which was undertaken by Freshlogic using the Mealpulse™ consumer panel. The project operated over four quarters Q2 2010 – Q1 2011, ending 31 March 2011.

The purpose of the project was to assess aspects of mushroom purchasing patterns, consumption and household penetration to establish measurement benchmarks and potentially extend some qualitative research to guide further investments in marketing.

This involved the incorporation of a series of mushroom specific questions into the Mealpulse™ food shopper panel operated by Freshlogic for a 12 month period. The questions collated answers from respondents on the use of shopping lists, frequency and quantity of mushroom purchasing and methods of preparation. Through the Docketdata capacity of Mealpulse™, which collates details of purchase receipts, details of product types and quantities were able to be confirmed.

This buying and consumption specific data was then linked into a model of the mushroom supply chain. This in turn allowed the level of household penetration, the number of shopping trips and the quantity per trip to be confirmed by reconciling with the mushroom volumes supplied.

This provided a complete mushroom market profile and enabled a set of measurement metrics to be defined to track the commercial impact of investments in mushroom consumption which can be used by industry and other interested parties.

Key annual outputs include: **

- 67.4% of households purchased mushrooms at least once every 4 weeks.
- The average purchase quantity per trip (as per docket data) was 267 grams.
- 61% of shoppers always or often used a shopping list.
- 43.5% of mushroom buying households prepared mushroom meals weekly.
- 88% of mushroom buying households used mushrooms in cooked dishes.
- Over the year there was an average of 76 retail promotions per quarter involving mushrooms. Promotions were heaviest in winter.
- 91.5% of households purchased fresh vegetables at least once every 4 weeks.
- Individual households made between 22.1 and 26.6 mushroom shopping trips over the course of the year.
- Households purchased around 38,646 tonnes of ‘retail’ mushroom per year.
- Households made an average of 65 fresh vegetable shopping trips per year.
- The fresh mushroom retail category value MAT is estimated at \$412 million.

** Annual average, over the four quarters to March 2011. Results differ from quarter-to-quarter.

Technical Summary

This is the Final Report for project MU 09009 *Mushroom Consumption Analysis*, which was undertaken by Freshlogic using the Mealpulse™ consumer panel.

The project operated over four quarters from Q2 2010 – Q1 2011, ending 31 March 2011.

This project assessed the aspects of mushroom purchasing patterns, consumption and household penetration in order to establish measurement benchmarks and potentially extend some qualitative research to guide further investments in marketing.

Key components of the project include:

- Collaborating processes to collect mushroom consumption data
- Modelling and forecasting of market values and trends
- Identifying consumption drivers and their impacts
- Providing insights on relevant market trends

It offered greater insights on the market drivers and trends of the mushroom industry by:

- Incorporating a series of mushroom specific questions into the Mealpulse™ food shopper panel operated by Freshlogic over a 12-month period
- Collating answers from respondents on the use of shopping lists, frequency and quantity of mushroom purchasing and methods of preparation
- Confirming the detail of product types and quantities through the Docketdata capacity of Mealpulse™
- Linking this purchasing and consumption specific data to a model of the mushroom supply chain. This in turn allowed the level of household penetration, the number of shopping trips, and the quantity per trip to be confirmed by reconciling with the mushroom volumes supplied.

The project provided a complete mushroom market profile and enabled a set of measurement metrics to be defined to track the commercial impact of investments in mushroom consumption. It also provided a basis to track and assess market growth and a basis for enterprise assessment by comparison to the credible total market over the period of four quarters.

The project drew conclusions and extended them into implications for those operating in the mushroom market settings. Some of the major findings are:

- Volume supplied to the market can be aligned with market tracking.
- There are seasonal variations in mushroom consumption.
- There is strong value in the accuracy of data extracted from retail docketts.
- The evolved set of measurement metrics provides full supply chain tracking coverage.

Introduction

The purpose of this Final report is to review and conclude project MU 09009 *Mushroom Consumption Analysis*, which has operated over the past four quarters Q2 2010 – Q1 2011, ending 30 June 2010. During this period, under the year-long project, four reports on Mushroom Consumption were delivered. These reports covered the following periods.

- *Mushroom Consumption Analysis – Q2 2010, ending 30 June 2010*
- *Mushroom Consumption Analysis – Q3 2010, ending 30 September 2010*
- *Mushroom Consumption Analysis – Q4 2010, ending December 2010*
- *Mushroom Consumption Analysis – Q1 2011, ending 31 March 2011*

Project MU 09009 *Mushroom Consumption Analysis* was undertaken to assess and profile household consumption patterns for fresh mushrooms, together with establishing specific consumption metrics in order to track and quantify the impact of planned marketing investments.

The research data was collected through the Mealpulse consumer panel, a platform of consumer research and analysis that uses questionnaire responses and retail dockets from over 15,000 respondents annually to capture the food attitudes and buying behaviour of Australian households. Data was also drawn from Freshlogic's Adwatch, a service that profiles and tracks retailer food promotional advertising in Australia.

Thus, the data which was available for analysis included:

- Responses to a set of mushroom specific questions
- Respondents retail dockets
- Retail promotional activity by retailer, state, and product type (for e.g. loose or pre-pack mushrooms)

During the life of MU 09009, the outputs were further developed in both refining the existing content as well as incorporating new content. This was undertaken to improve the relevance of the report and provide greater insight on the important drivers influencing household mushroom purchasing and consumption patterns and future prospects of the mushroom industry. It provided a complete mushroom market profile and defined a set of measurement metrics that track the commercial impact of investments in mushroom consumption.

This Final Report for project MU 09009 has been compiled to provide a basis for others to see the rationale for what was included in the outputs and potentially guide stakeholders in assessing their options in garden market. This document will also serve as a resource guide for AMGA, HAL, or their consumer research partners who may wish to evolve the Mushroom Consumption Analysis project's findings and practices into new types of information outputs.

This research data pertaining to the purchasing and consumption for mushrooms was further linked to a model of the mushroom supply chain, reconciling the level of household penetration, the number of shopping trips, and the quantity per trip with the mushroom volumes supplied. This provided a complete mushroom market setting and enabled a set of measurement metrics to be defined to track the commercial impact of investments in mushroom consumption. It also provided a basis to track and assess market growth and a basis for enterprise assessment by comparison to the credible total market over the period of four quarters.

Results

A number of key trends were evident during the period of this project, which spanned four quarters Q2 2010 – Q1 2011. They include:

1. The incidence of mushrooms being featured on shopping lists has grown over the past year, with 83% of list-using respondents always, often, or occasionally having mushroom on their list.
2. The strongest correlation between shopper attitudes and use of lists can be found among shoppers who like to try foods from other countries. Singles and couples with low incomes, Empty nesters, Budgeting families, and Established families are more likely to use a list.
3. The changes in price per kg of mushrooms over the past four quarters will have been influenced by the frequency, product selection, and price of the retail promotional activity, together with the seasonal demand.
4. There has been an increase in purchases greater than 3 weeks ago and a decline in those less than 6 days ago, over the past year.
5. Over the four quarters, the fresh mushroom retail share trends for Woolworths and Coles increased. There was a similar trend for ALDI, but to a lesser extent
6. There was a steady increase in the proportion of households preparing mushrooms once a month or less over the four quarters.
7. Over the four quarters, the use of mushrooms in cooked dishes declined slightly, while the use of mushrooms in salads increased, in part a reflection of seasonal conditions, which lead to more salad consumption in warmer weather.

Metrics	Q2 -10 National	Q3 -10 National	Q4-10 National	Q1-11 National	Q4-10 Vic/Tas	Q1-11 Vic/Tas	Annual
Primary							
Household penetration of mushrooms (purchased at least once every 4 weeks)	70%	68.5%	67%	64%	69%	70%	67.4%
Mushroom purchase quantity per trip as per docket data (grams)	286g	274g	258g	251g	260g	296g	267g
Secondary							
Shoppers always or often use a shopping list	60%	62%	59%	63%	61%	63%	61%
Prepare mushroom meals weekly by mushroom buying households	44%	45%	44%	41%	39%	40%	43.5%
Use of mushrooms in cooked dishes	91%	88%	86%	87%	88%	87%	88%
Retailer mushroom promotions during this period	102	65	74	64	19	6	76
Fresh vegetable penetration (purchased at least once every 4 weeks)	93%	94%	90%	89%	91%	90%	91.5%
Benchmarks							
Mushroom shopping trips per household per annum YTD							22.1-26.6
Retail mushroom volume purchased by households per annum							38,646t
Fresh vegetable shopping trips per annum							65
Fresh mushroom retail category value MAT							\$421M

Figure 1 - Mushroom Analysis - Measurement Metrics

Discussion

Driving Factors

A series of factors that are deemed to have a direct impact on purchasing and consumption of mushrooms were identified, analysed, and reported in each of the four-quarterly reports.

The research data obtained from an analysis of these variables was then further linked with the mushroom supply chain model in order to provide a complete picture of the mushroom market setting. The purpose of profiling these variables is to allow stakeholders in the mushroom market to assess their own commercial performance in the context of these changing variables.

Shopping lists – This examined the use of shopping lists by respondents. With time pressure influencing shopping patterns in today’s lifestyle demands, insights from Mealpulse showed that the trend of planning before the shopping trip has gained dominance, with over 60% shoppers “always” or “often” using a shopping list.

This involved the collection of data on use of shopping lists by state and gender; household segments and attitude; and retailer. Further analysis of data offered a platform to understand ‘how’ and ‘why’ this trend may impact purchasing and consumption of mushrooms. It was also clear that products included on shopping lists were purchased more regularly. Figure 2 depicts the trend of mushrooms on list.

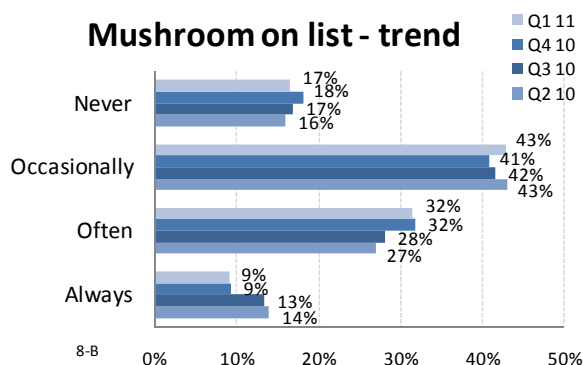


Figure 2 Mushrooms on list trend

Quantity of mushrooms last purchased - This involved an assessment of the quantity of mushrooms purchased on each shopping trip by households. This included the respondent docket data analyses, which are weighted by household segment. This is then compared with the quantity of mushrooms last purchased reported by households, which in turn gives an accurate picture of the mushroom quantity actually purchased over each of the four quarters.

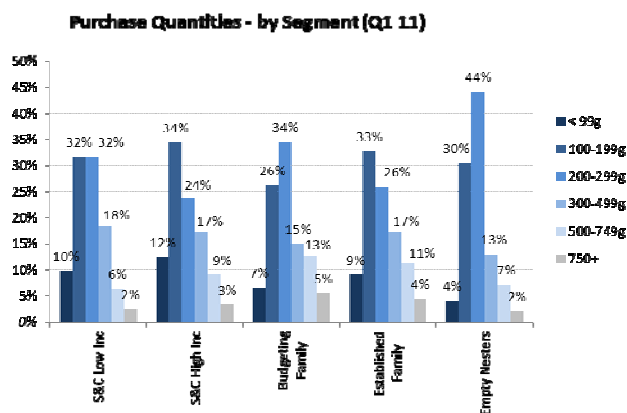


Figure 3 Purchase quantities by segment

An assessment of the **quantity purchased by household segment** also revealed the different quantities which are more popular with particular household groups. As profiled in Figure 3, smaller quantity range is more popular among Singles & couples with high income and Established families, while the medium sized quantity is purchased more by Empty Nesters and Budgeting families.

Last bought mushrooms – This profiled the purchase frequency of mushrooms by the households, which was tracked over the four quarters. Figure 4 portrays the frequency of mushroom purchase by households over the four quarters.

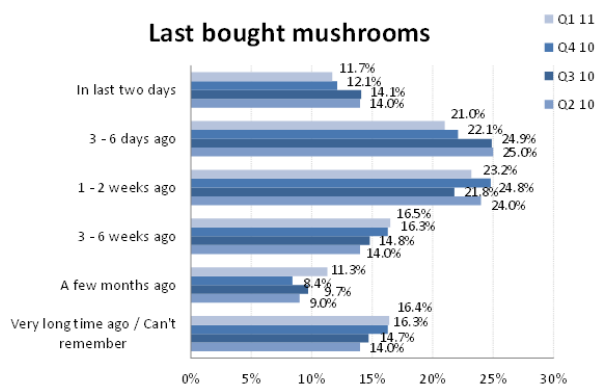


Figure 4 Purchase frequency of mushrooms

Where purchased - This involved tracking where the households purchased fresh mushrooms, including retailers Woolworths, Coles, IGA, Aldi, other supermarket or fruit shop/market.

Mushroom usage frequency – This profiled an estimate of the use of mushroom usage frequency in meals prepared at home – four times a week or two to three times a week to once a week, fortnight, and a month or less.

Meals prepared - This involved the collection of data on how mushrooms are used – in Asian/middle eastern dishes, cooked dishes, or as salad components, as profiled in Figure 5.

Mushroom advertising activity – This involved monitoring of retail promotional activity by major retailers for loose and pre-pack mushrooms across the states over the past four quarters. Figure 6 profiles the type of product advertised since April 2009.

Market Growth, Size and Share

Model outputs are generated by the market models developed in the project. They enable the profiling of the total market, which is then further broken down to examine the volumes by production & wholesaling, processing, retail, foodservice, supermarkets, greengrocer, fast food, café/restaurant, events & institutions channels. This provides an in-depth view of the entire mushroom market setting. This map, profiled in Figure7, reflects assumptions on market share and allowances for supply chain waste. It is assumed that the waste will be incurred from packing into cartons at point of production through to the point of sale.

This type of profiling provides a basis to track and assess market growth and a basis for enterprise assessment by comparison to the credible total market over the period of four quarters.

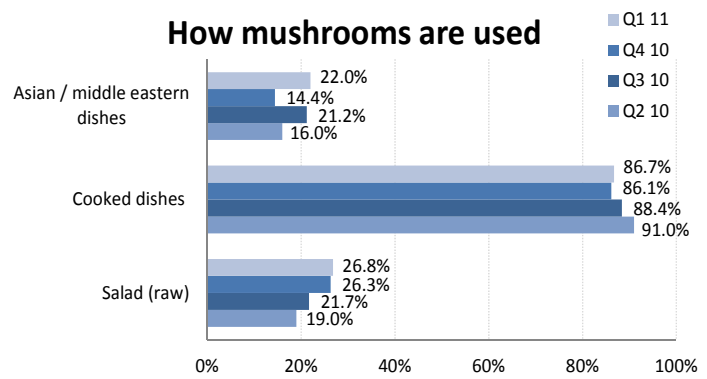


Figure 5 How mushrooms are prepared at home

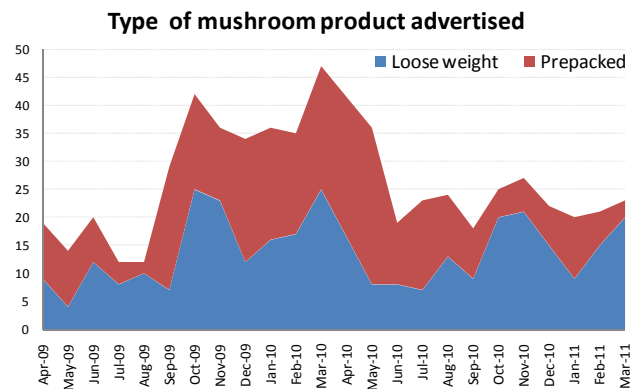


Figure 6 Type of mushroom advertised

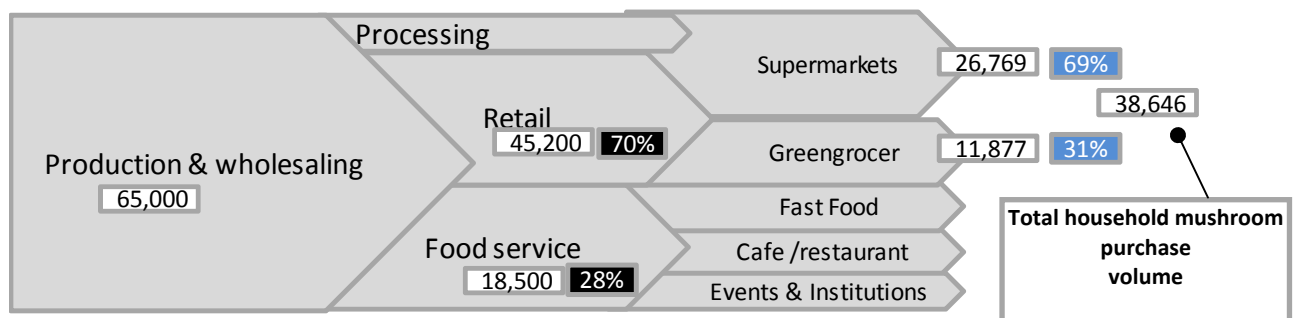


Figure 7 Supply chain volumes (annual tonnes)

Other Enhancements

Conclusion & Implications - Provided an enhancement to the document by drawing conclusions at various points in the document for those operating in the mushroom market.

Data Sourcing - Data is obtained from all sectors of the industry, including growers, wholesalers, and retailers. Data is provided on a regular basis or captured through interviews and from a range of commercial operators. The identity of the organisations and individuals that provide data, or data related to one individual organisation, is treated as strictly confidential.

Technology Transfer

The scope technology transfer benefits from the project are centred on the use of the defined methods and measures of consumption, to guide investments in increasing mushroom consumption. Therefore it is the potential investors in mushroom consumption that have been the key audience for outputs from this project.

- The four quarterly reports have been made available.
- A mid project workshop was held with AMGA stakeholders to consolidate early findings.
- A press release has been compiled and made available for publishing

Industry Recommendations

Recommendations are for the data collection, analysis measures and outputs used and developed in this project to be adopted as the basis for tracking mushroom consumption.

Acknowledgements

Freshlogic would like to acknowledge the input and feedback provided by AMGA and their consumer research partners, including further details of data collected and alignment of measurement outputs.

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