

Horticulture Innovation Australia

Final Report

Analytics for Mushrooms

Greg Seymour
Australian Mushroom Growers Association Ltd
(AMGA)

Project Number: MU12005

MU12005

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Level 8, 1 Chifley Square
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Tel: (02) 8295 2300
Fax: (02) 8295 2399

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Summary

Analytics for Mushrooms (HIA project MU12005) was a multi-year project that delivered data sets and insights which were used by the mushroom industry as inputs into its strategic and operational planning (in particular marketing and promotional planning), and the evaluation of outputs and outcomes from the industry's levy investment program.

Over the three years of the project a range of purchaser, consumer, channel and behavioural data related to the Australian mushroom industry was briefed, collected, analysed, interpreted and reported. Milestone reports were provided to HAL/HIAL and presentations made to MIAC (growers and independent experts). A formal presentation to growers was provided at the 2014 Australian Mushroom Growers conference.

The timing of the various components of the project was designed to track changes in market activity and buyer behaviour over the course of the project. In particular, the original configuration was designed to coincide with the national implementation of the 'Are you in the Dark about the Power of Mushrooms' marketing campaign to assess the impact of the increase in levy funded marketing and promotions activity. As it turned out this increased funding did not eventuate until early in 2015, rather than 2012 as was originally envisaged.

Even so, the staged process provided extremely useful information for the industry in its planning and operational activities.

MU12005 comprised seven discrete research projects undertaken by four different providers over three years.

The utilisation of multiple independent data sources and methodologies allowed for cross referencing of results to allow for validation and gap analysis. The seven discrete research projects are as per below:

Year 1 (2013)

'Mushrooms' - Nielsen Homescan (September 2013)

Baseline study of mushroom channel, retailer and purchaser behaviour.

Year 2 (2014)

'Loose mushrooms or lose shoppers' - Nielsen Homescan (August 2014)

2nd study of channel, retailer and purchaser behaviour. Includes focus on changing dynamics of format – loose vs. pre-pack.

'Mushrooms – High, Medium, Low Consumer Analysis' - Nielsen Homescan (October 2014)

Exploration of mushroom purchasing behaviour, dynamics and opportunities across Nielsen defined household segments.

'2014 Mushroom Monitor' – Quantitative, Purchaser Usage and Attitude Research - Mobium Group (October 2014)

Detailed mushroom purchaser study, n=2000+ – metrics including buying behaviour, usage in and out of home, knowledge & affinity, barriers and opportunities. Compares current with historical data.

'Australian fresh mushroom market profile' - Freshlogic (November 2014)

Review of mushroom industry category dynamics, supply chain, retail activity and purchaser behaviour

Year 3 (2015)

'The State of Mushrooms Sales' – Nielsen Homescan (June 2015)

3rd study of channel, retailer and purchaser behaviour. Includes focus on state based channel / retailer performance

'Mushroom Monitor Qualitative Research' – Myriad Research (June 2015)

8x focus groups (Sydney / Melbourne) exploring affinity, knowledge, drivers and TVC review

The project has generated deep insights into purchaser, consumer and market dynamics that are of use to the industry as a whole for strategic and operational review and planning, and to individual growers in their business planning and go-to-market activities.

For example, the annual snapshot measures from Homescan highlight the changing market shares of the various major retailers and channels. Over the life of the project this has seen the 'majors' – Woolworths, Coles and Aldi continue to gain share of the total retail mushroom market. This has come primarily at the expense of independent supermarkets and in particular Greengrocers / Markets.

This outcome has implications for supply chain and market access, as well as tactics for mushroom industry promotion, POS and engagement.

The project successfully provided data to assess strategic, operational, and management performance of the mushroom industry's levy investments. The data outputs have been used in strategic planning and evaluation activities by the industry, and by individual businesses in the supply chain.

It is recommended that a new analytics project be established by the Industry.

This should include:

1. A consultative review by industry of the future research and statistical needs of the Australian mushroom industry. The review should contain a

recommendation on the datasets, collection/reporting frequency and analytical insights that the industry will require for the future.

- It should reference and be embrative of the recently completed HIA Project MU08011 - Mushroom Industry Statistics, with the potential to develop an inclusive project.
2. A new project be developed based on the recommendations from (1) above;
 3. A new multi-year project be commissioned immediately to ensure there is continuity of datasets.

Keywords

Mushrooms; Analytics; Market; Research; Consumers; Purchasers; Behaviour; Channels

Introduction

The retail market (consumer) accounts for ~70% of the total volume of mushrooms sold in Australia.

'Generic' marketing and promotions (M&P) undertaken by the Australian mushroom industry targeted at the public are an important method of generating awareness about mushrooms and stimulating increased frequency of mushroom purchase / amount of mushrooms purchased per transaction.

The strategic aim over the longer term is to move mushrooms from a discretionary purchase by shoppers to a perceived essential item in the weekly food shop, and a preferred ingredient in the food service market.

Achieving this goal will lead to an increase in the volume of mushrooms being pulled through the supply chain throughout the year.

From July 2012 the industry transitioned to a new marketing positioning that highlighted the variety of positive health outcomes associated with the regular consumption of mushrooms.

Extensive testing of the 'Power of Mushrooms' (POM) campaign in a controlled test market experiment in 2010/11 highlighted that this new approach was effective in driving accelerated sales rates of mushrooms.

MU12005 – Analytics for Mushrooms project was a multi-year research project to capture and analyse market metrics and consumer behaviour data. It was designed to ensure that the mushroom industry made sound investment decisions with its M&P funds as the Power of Mushrooms was rolled out nationally, and to identify to potential opportunities for refinement of the marketing strategy.

The objectives of MU12005 – Analytics for Mushrooms project was to systematically collect data to:

1. Baseline and track changes in mushroom purchasing habits (such as household penetration, frequency of purchase, average purchase volume/value, product format participation, purchase on/off promotion) of shoppers that demonstrate progress in achieving behaviour change over time;
2. Track changes amongst mushroom purchasers about their level of understanding of the health benefits/outcomes of mushroom consumption, their level of awareness/exposure to mushroom industry marketing (and the claimed knowledge / behavioural actions from exposure) that demonstrate efficient and effective communication;
3. Review variances within the mushroom purchaser / consumer base (based on demographic variables) to understand opportunities to target specific audiences / refine communication;

4. Generate insights into emerging preferences in shopping channel, product format, meal preparation, communication channels /modes that can inform the development of innovative and high relevance approaches.

To gather robust longitudinal data a three year project timeline was agreed.

The project period was from July 1, 2013 until July 30, 2015.

Methodology

The project design called for a multi-faceted range of data sets to be collected and analysed.

Service providers were assessed for their ability to provide information that supported the overall project objectives in a cost effective manner. This approach allowed for a diversity of data collection techniques to be incorporated into the project.

Each discrete analysis provided unique data however in some cases a selection of the metrics were also captured by other service providers, allowing for cross referencing and triangulation of the measures.

The following outlines the data sources utilised in the project:

Homescan – mushroom category purchasing behaviour (Nielsen)

An annual mushroom category snapshot provided by representative panel of 10,000 Australian households managed by Nielsen.

Reveals actual consumer purchasing behaviour at a category, segment and product level as well understanding purchasing dynamics such as number of buyers, how much they buy, their loyalty, purchase frequency, repeat buying, as well as understanding shoppers, who they are and where they shop.

A customised report and analysis was produced (based on input from the project team in relation to specific areas of investigation) and provided to the Principal Investigator on an annual basis.

The reporting timetable was:

Report 1 – data MAT 10/8/2013 – September 2013

Report 2 – data MAT 12/7/2013 – August 2014

Report 3 – data MAT 16/5/2015 – June 2015

Mushroom Monitor – comprehensive usage, attitude, understanding and consumer awareness study.

The Mushroom Monitor is a comprehensive multi-mode (combination of quantitative / qualitative) shopper / consumer research study undertaken on average every 2-4 years since 1992 to understand usage, attitude, actions and opportunities for the mushroom industry.

The conduct of the Mushroom Monitor is highlighted as part of the indicative action plans included in the Australian Mushroom Industry Strategic Plan 2011-16.

The Mushroom Monitor provides a highly focused investigation and analysis of mushroom category purchasers. For example what motivates them to buy mushrooms and why, how they use mushrooms at home - in how many meals per week and in what quantities, what are their key sources of influence, what do they understand about the health benefits and outcomes of mushrooms, what level of recall do they have of the Industry marketing activities, and are these activities impacting on their knowledge about mushroom health outcomes.

Data collection included:

1. **Quantitative study** – ABS representative national survey
(n=, 2,000 – reliability 95% +/- 2.2% at a total level)

Mobium Group provided data collection, analysis and reporting.

For the quantitative study a specific question set was developed in consultation with the Principal Investigator referencing prior Mushroom Monitors to provide continuity where possible for direct data trend comparison.

2. **Qualitative study** – focus groups with differing configurations
(8 x groups (Sydney & Melbourne) – variety of life-stage compositions, level of engagement with mushrooms)

Myriad Research provided group facilitation, analysis and reporting.

For the qualitative study a specific discussion guide was developed in consultation with the Principal Investigator based on key issues identified from the quantitative study and other aspects that the Principal Investigator deemed as requiring investigation.

Timetable:

MM Report 1 - Quantitative study – commenced July 2014 – reported October 2014

MM Report 2 - Qualitative study – commenced February 2015 – reported June 2015

Initially, retail scanning data was included in the project design however this was unavailable to the industry so alternative data sets were sourced and included in the project.

Nielsen was engaged to undertake a detailed segmentation (**HML Consumer Analysis**) reviewing mushroom purchase behaviour by lifestyle in an attempt to identify audiences that may be targeted by industry M&P activity. This was reported in October 2014.

Freshlogic was chosen to provide a **Mushroom Market Profile** report, an update to the work it had undertaken as part of MU 09009 (Mealpulse for Mushrooms) in 2011. This project provided measurement approaches and benchmarks to assess aspects of the mushroom supply chain, purchasing patterns, consumption and household penetration. This was reported in November 2014.

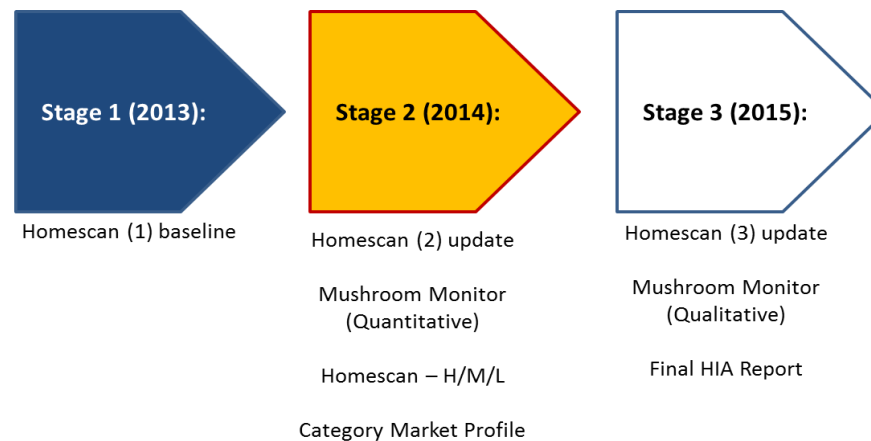
The timing of the various components of the project was designed to track changes in market activity and buyer behaviour over the course of the project.

In particular the original configuration was designed to coincide with the national rollout of the 'Are you in the Dark about the Power of Mushrooms' to assess the impact of the increase in levy funded marketing and promotions activity.

As it turned out this increased funding did not eventuate until early in 2015, rather than 2012 as was envisaged.

Even so, the staged process provided extremely useful information for the Industry in its planning and operational activities.

The project stages are outlined below:



Outputs

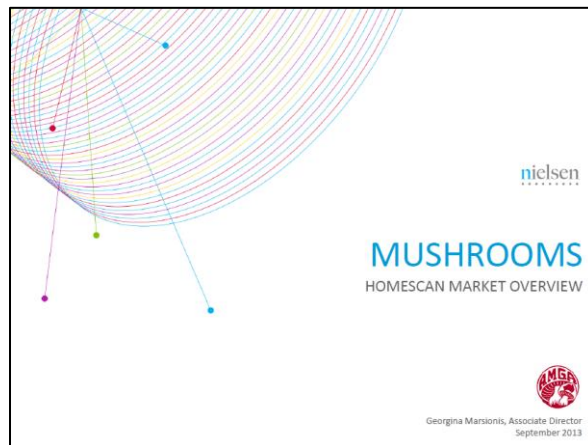
MU12005 was made up of seven individual research reports. Overviews of the data collected during the project was recorded in series of milestone reports. Formal updates were provided in presentations to the Mushroom Industry Advisory Committee (MIAC). An update to Industry participants was provided at the 2014 Australian Mushroom Growers conference in September 2014.

A snapshot of the outputs from each report (in time sequence) follows. The full reports are detailed in the Appendices.

Year 1 (2013)

'Mushrooms' - Nielsen Homescan (September 2013)

Baseline study of mushroom channel, retailer and purchaser behaviour



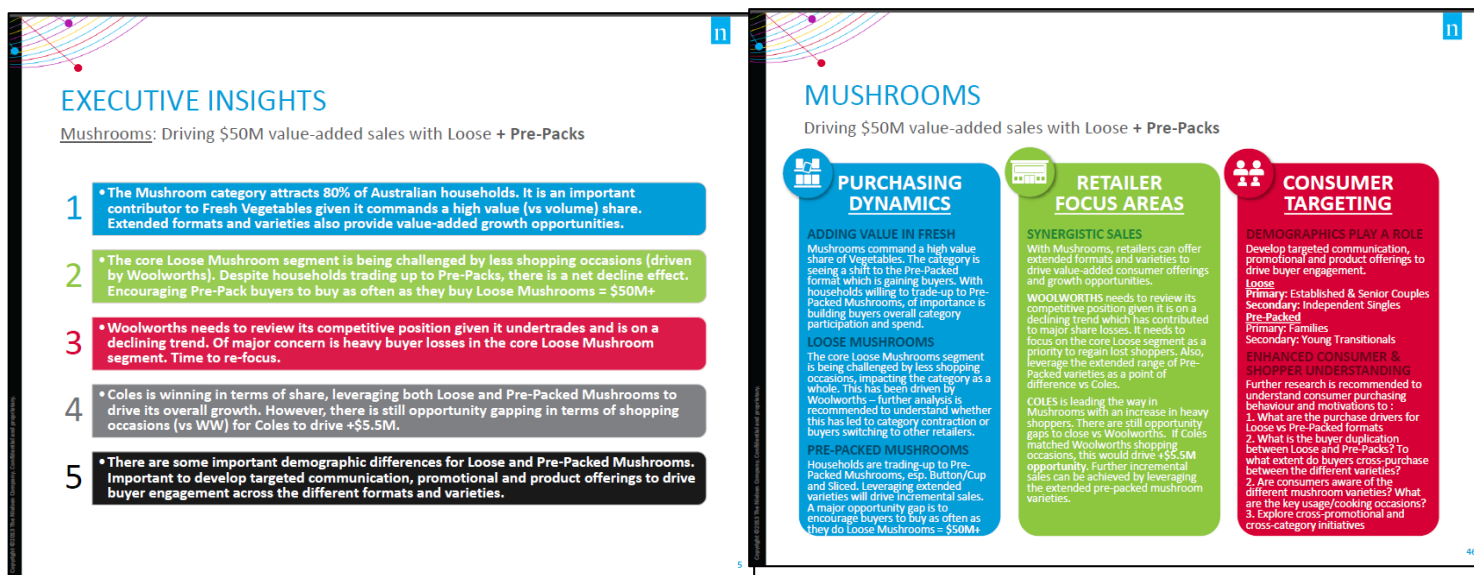
This 36 page report provided a baseline set of data for the mushroom category in Australia:

- ~ Channel share and performance by product format
- ~ Household participation rates
- ~ Purchasing behaviour and format preference
- ~ Category loyalty
- ~ Major retailer performance – Coles & Woolworths
- ~ Analysis by lifestage on format participation rates

The baseline Homescan provided strong insights into the changing dynamics the retail market for mushrooms and also the shift in share between loose and pre-packed mushrooms.

Of note was the significant decline in the performance of independent greengrocers, as well as the under-performance of Woolworths. Aldi's performance with mushrooms was a standout, garnering 13.8% of all retail mushrooms sold, compared with an overall Grocery share of 8%.

The Executive Insights highlighted five key findings, in particular the fact that the increasing focus and uptake of pre-packed mushrooms in major supermarkets was leading to lower purchase occasions driving an overall opportunity gap of \$50m per annum compared with loose shoppers.



The information in the baseline Homescan provided metrics and insights that were used in the development of the Industry M&P plan. Data was also used to engage the supply chain through the Industry Retailer Development program within the industry's marketing program.

Year 2 (2014)

'Loose mushrooms or lose shoppers' - Nielsen Homescan (August 2014)

2nd study of channel, retailer and purchaser behaviour. Includes focus on changing dynamics of format – loose vs. pre-pack



The 2nd Homescan report (52 pages) provided an update to the baseline set of data.

In addition for this report, Nielsen were asked to undertake a highly focused 'deep dive' into the characteristics of 'loose' buyers and to contrast this to pre-pack' purchasers. The objective was to ascertain what impact the continued sales growth of pre-packs was having on the overall market value.

The update showed a continued decline in the performance of greengrocers and a bounce back in the performance of Woolworths. Coles performance was a standout, with growth of 0.8% of a market share point in the year driven by a 6.3% growth in mushroom sales value in the year, compared with a national average of 3.2%.

The deep dive on the purchasing dynamics highlighted the need for retailers to protect shoppers who buy loose mushrooms as they are the most loyal, spend the most per transaction and are the most used format by Heavy mushroom purchasers.

The negative impact to the category was assessed at \$60 million retail dollars per annum if loose mushrooms were delisted by the major supermarkets.

THE CASE FOR LOOSE MUSHROOMS

What?

Alongside gaining an updated understanding of **Mushroom performance**, there is a sense that retailers wish to **delist Loose Mushrooms** – this analysis investigates if this is the right thing to do

Findings

Performance: Volume is growing faster than value (+4.0% vs 3.2%*), but overall sales lagging behind Total Veg sales still (+4.3%*): an opportunity gap of **\$2.4m**
All retailers are contributing to the growth – but Aldi's smaller pack format strategy appears to be bringing down volume

Loose: Though pre-packed are attracting more buyers YOY, Loose continues to have greater appeal, & higher average spend levels; a format particularly important to Heavy Mushroom buyers.
Loose mushroom buyers are highly loyal to that format, allocating 2/3 of their spend to Loose vs pre-packed – with 2 in 5 Loose mushroom buyers **only** buying that format: potential risk of **\$60m category loss** if delisted

Recommendations

Focus on driving **reasons to consume**: if light Mushroom buyers were to buy 1 extra time a year it could add **\$11m** to the category
Reiterate the importance of Loose in the category: instrumental to the heaviest category buyers; leverage to drive additional support & focus on Loose to avoid further declines

3

LOOSE BUYERS MUST BE PROTECTED

Heavy buyers of Loose driving the format volume spend 25% more on Loose mushrooms than their Pre-Packed counterparts, driven by visits

		Penetration	AWOP	No Occasions	Spend per Occasion
Heavy		10.7%	\$83.5	24.3	\$3.4
		7.4%	\$66.6	15.4	\$4.3
Medium		12.7%	\$35.6	13.6	\$2.6
		9.3%	\$29.5	7.4	\$4.0
Light		47.7%	\$9.8	4.3	\$2.3
		34.1%	\$8.6	2.2	\$3.8

Loose: Heavy: >5.1 kg (top 50% volume); Medium: 2.6 – 5.1kg (next 25% volume); Light: <2.6kg (next 25% volume)
Prepacked: Heavy: >3.45kg (top 50% volume); Medium: 1.7 – 3.45kg (next 25% volume); Light: <1.7kg (next 25% volume)

Source: Nielsen Homescan MAT to 12/7/14 vs YA

SUBSTANTIAL RISK OF LOSING CATEGORY SALES IF LOOSE MUSHROOMS WERE NO LONGER RANGED

2 in 5 Loose mushroom buyers **only** buy that format (some 2.4m shoppers) – compared to 1 in 5 pre-packed mushroom buyers only shopping that format

BUYER EXCLUSIVITY AND DUPLICATION
MAT To 12/07/2014 vs. YA | Market: AUS | Relative to Total Mushrooms

T. Loose Mushrooms

37.1%	51.0%	11.9%
88.1%	41.2%	9.6%
71.1%	68.2%	6.2%
29.9%	67.2%	5.4%
93.8%		
25.6%		
94.6%		
27.4%		

43.8% of T. Loose Mushrooms buyers are exclusive buyers.

T. Barcoded Mushrooms

62.9%
50.8%
74.4%
72.6%

15.0% of T. Barcoded Mushrooms buyers are exclusive buyers.

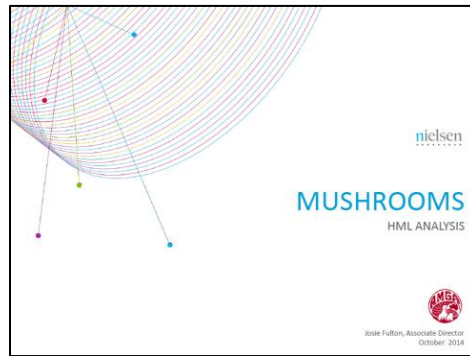
Distribution of Buyers %
Penetration %
% Value Contribution
% Volume Contribution

*29.9% penetration x 7.8m hdds x Loose Mushroom AWOOP of \$25.5
Nielsen Homescan Australia – Source Issue # BED - 751749,751 BASE: HAL

The information in the 2nd Homescan report again provided analysis and measures that were used in the development of the Industry M&P plan. The data on the importance of loose mushroom ranging to the category was used in Supply Chain Development program discussions with major chains Coles and Woolworths.

'Mushrooms – High, Medium, Light Consumer Analysis' - Nielsen Homescan (October 2014)

Exploration of mushroom purchasing behaviour, dynamics and opportunities across Nielsen defined household segments.



Based on discussions with Nielsen the team identified the potential to conduct extra analysis to deeply understand the differences between Heavy / Medium / Light mushroom purchasers.

This H/M/L analysis was delivered by Nielsen in October 2014.

The review investigated the shopping behaviours amongst the seven Nielsen Homescan Lifestage segments.

According to the Nielsen Associate Director who undertook the analysis for the project; “the key thing jumping out at me is that mushroom engagement irrespective of format is not about income or household size to any huge degree overall (slightly more so with pre-packed but not loose)”.

SUMMARY

What?

Findings

Recommendations

Following on from previous analysis, we wish to understand the dynamics of Heavy/Medium/Light Mushroom buyers – and what the profile of each group means for ongoing Mushrooms sales & strategy

Age & Hhd Size do not impact Mushroom buying behaviour; price a likely issue with Low Incomes less engaged; Independent Singles by far the least involved – but this likely reflects overall Fruit & Veg engagement

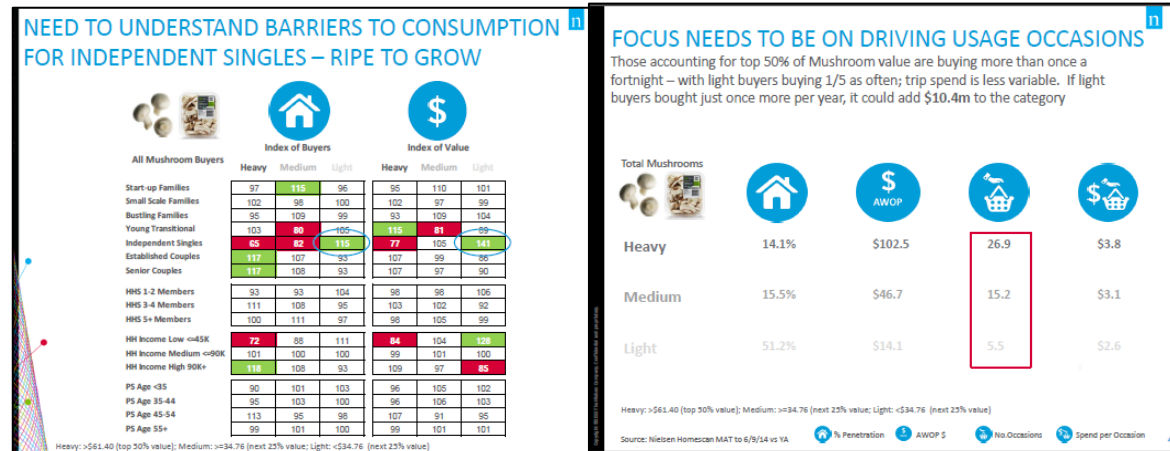
Pack format little driver of purchasing behaviour by demographic, format clearly a personal choice: need to ensure both formats readily available for all shoppers

Driving Visits: the biggest dynamic differentiating Heavy from Light Mushrooms is visits, with Light buyers shopping 1/5 as often. Just one extra annual visit from this group could deliver an additional \$10.4m

Focus on driving reasons to consume for all buyers: big opportunity to make mushrooms more part of the regular shop

Understand if taste/ pester power a barrier in driving Bustling Family consumption

Investigate if a true opportunity with Independent Singles exists or a broader issue with Fruit & Veg generally



The key findings which show widespread and generally consistent participation amongst shoppers support the Industry strategy of communicating with a broad cross section of grocery shoppers within the community and that providing a 'compelling reason to include' is vital to drive usage

occasions.

The information in the Homescan HML analysis was used to validate the target audience for Industry communications and reconfirmed the appropriateness of using mass media channels. The outcomes were then included in the Industry M&P operational plans.

Furthermore the analysis gave strong credence to the tactical aspects of the promotional messaging conducted by the industry in support of driving using occasions.

'2014 Mushroom Monitor' – Quantitative, Purchaser Usage and Attitude Research - Mobium Group (October 2014)

Detailed mushroom purchaser study, n=2000+ – metrics including buying behaviour, usage in and out of home, knowledge & affinity, barriers and opportunities. Compares current with historical data.






Mobium Group delivered the 'Mushroom Monitor' Purchaser Usage & Attitude Research in October 2014.

The project provides a comprehensive exploration of the current attitudes, perceptions and behaviours of 2,021 Australian mushroom purchasers.


The research report totals over 150 pages of data and supporting analysis, as well as thousands of verbatim comments.

The Mushroom Monitor is a central piece of industry intelligence as it has been conducted on a regular basis since 1992, allowing for tracking of changes in industry structure and purchaser behaviour over time.

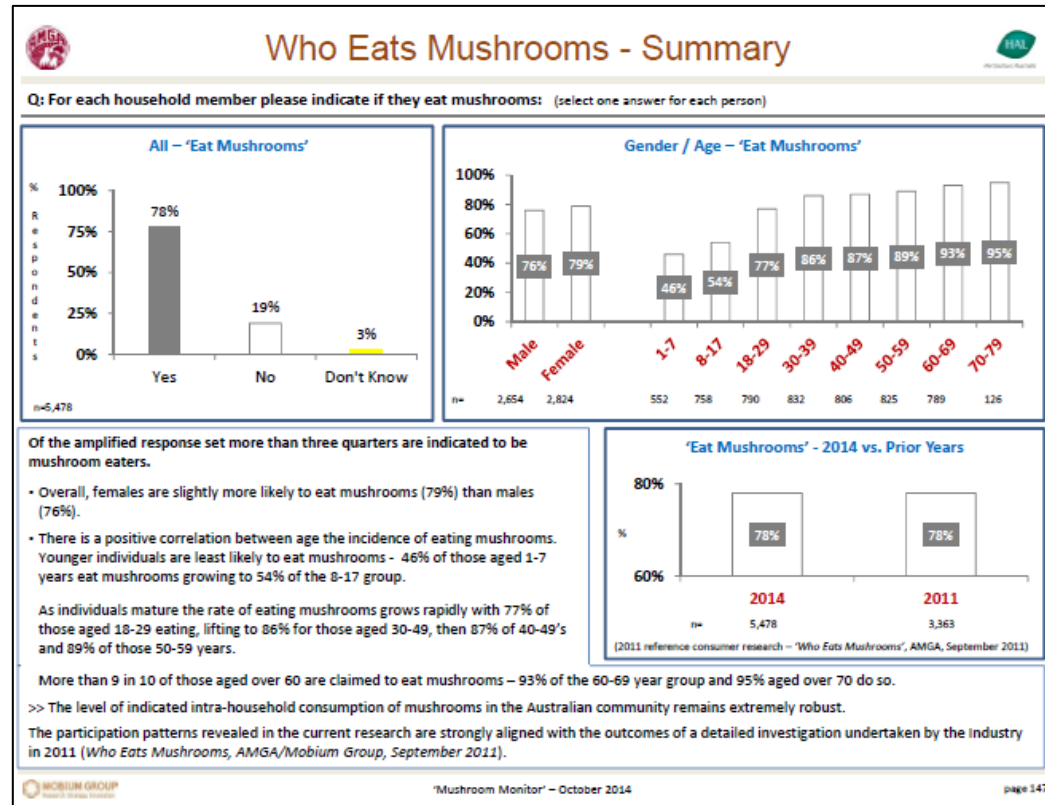
The Key Metrics summaries (5 pages covering 79 measures) provides a historical context to current outcomes giving the industry the ability to monitor changes over time.

Key Metrics				
		2014 n=2,021	2010 n=2,095	2006 n=201
% of households who purchase fresh mushrooms in a month:		81%	82%	82%
% of all people within households who eat mushrooms:		78%	78% (2011 WEM research)	New
Strength of affinity with mushrooms:	'Love'	41%	40%	New
	'Like'	29%	27% (2011 WEM research)	New
Major perceived benefits of mushrooms:		Healthy Taste Quick/Easy	Taste Healthy Quick/Easy	Taste Healthy Versatile
% of all purchasing HH fresh vegetable shopping occasions that include fresh mushrooms:		74%	71%	72%
% of mushroom purchaser households that pre-plan food purchase (use shopping list):	'always'	37%	38%	New
	'often'	45%	29%	New
% of mushroom purchaser households that have mushrooms on their shopping list:		86%	78%	70%
Change in fresh mushroom purchase intensity vs. year ago:	buying 'more often'	31%	30%	24%
	buying 'the same'	67%	68%	69%
	buying 'less often'	2%	2%	7%
Fresh mushroom purchaser perception of product 'quality' experience:	'excellent'	38%	40%	42%
	'good'	53%	51%	49%
Estimated number of shopping occasions with increased purchase uplift due to quality:		2.4 occ	2.6 occ	2.2 occ
 				
 Mushroom Monitor – October 2014 page 19				

The summary of findings (14 pages covering 43 topic areas) provided a thorough snapshot of the modern mushroom purchaser and their shopping and usage habits.

Summary of Findings		
Mushroom purchasers believe that an 'excellent' quality mushroom is one that is 'fresh' as characterised by being 'white', 'clean' and 'firm'...	<p>no Blemishes Clean Size Fresh not Bruised Perfect not Brown Firm Not Only White no Marks Unblemished not Discoloured not Slimy</p>	<p>The open responses show that an excellent quality mushroom is seen as <u>not</u> 'slimy', 'discoloured', 'bruised', 'dirty' or 'blemished'</p> <p>Read more on pages 59 - 60</p>
And the quality of fresh mushrooms can drive increased purchasing above usual buying patterns...	<p>68%</p> <p>said that they had 'bought more fresh mushrooms than usual because the product looked so good' in the past year.</p> <p>The incidence of purchase uplift due to good quality occurred 2.4 occasions on average in the past year.</p>	<p>Read more on pages 61 - 62</p>
Almost all Australian mushroom purchasers buy 'loose' mushrooms on occasion, however the loyalty to the format is waning...	<p>45%</p> <p>of fresh mushroom purchasers say that they 'always' by loose, down from 73% in 2010.</p>	<p>Read more on pages 64 - 65</p>
The primary drivers of preference for loose mushroom purchasers relate to aspects of 'control' of the selection process by the shopper...	<p>68%</p> <p>cite the ability to choose specific mushrooms from those on offer.</p> <p>Next is the ability to control the exact quantity desired (61%) and the capacity to select the preferred size of product (55%).</p>	<p>Read more on pages 66 - 68</p>
"Mushroom Monitor" – October 2014		page 8

Amongst the major highlights the research confirmed that three quarters of Australians now eat mushrooms.



Mushrooms are least popular with children and teenagers. Around 50% of children (1-7 years) and teenagers (aged 8-17) either 'like' or 'love' mushrooms. This appreciation climbs as age increases to over 85% of people over the age of 30 who 'love' or 'like' mushrooms.

80% of Australian households claim to purchase mushrooms, nearly 60% of all shoppers who buy mushrooms claim to do so at least once every week and almost three quarters of all fresh produce buying occasions by mushroom purchasing households include mushrooms.

Of those households who do buy mushrooms, in an average week mushrooms are included in 2.4 meals that are prepared at home in Australia. On average 5.8 mushrooms are used in a meal prepared at home.

There was also increase in community knowledge about the health benefits of regular consumption of mushrooms, and evidence showing a positive progression in the number of Australians who could identify the 'Are you in the Dark about the Power of Mushrooms' positioning.

A project debrief between Mobium and the MU12005 project team was held in late November 2014.

This discussion was used to clarify key learning's and to identify themes that warrant further investigation in the qualitative (focus group) stage of the Mushroom Monitor that was conducted by Myriad Research in Q2 & Q3 2015.

The information in the Mushroom Monitor quantitative analysis was used to populate key aspects of the target market and market dynamics in the industry M&P plan. It also validated the target audience for Industry communications and consolidated overall industry knowledge for use in the next Industry Strategic planning round to commence in 2015.

'Australian fresh mushroom market profile' - Freshlogic (November 2014)

Review of mushroom industry category dynamics, supply chain, retail activity and purchaser behaviour



The Freshlogic market profile was delivered in November 2014.

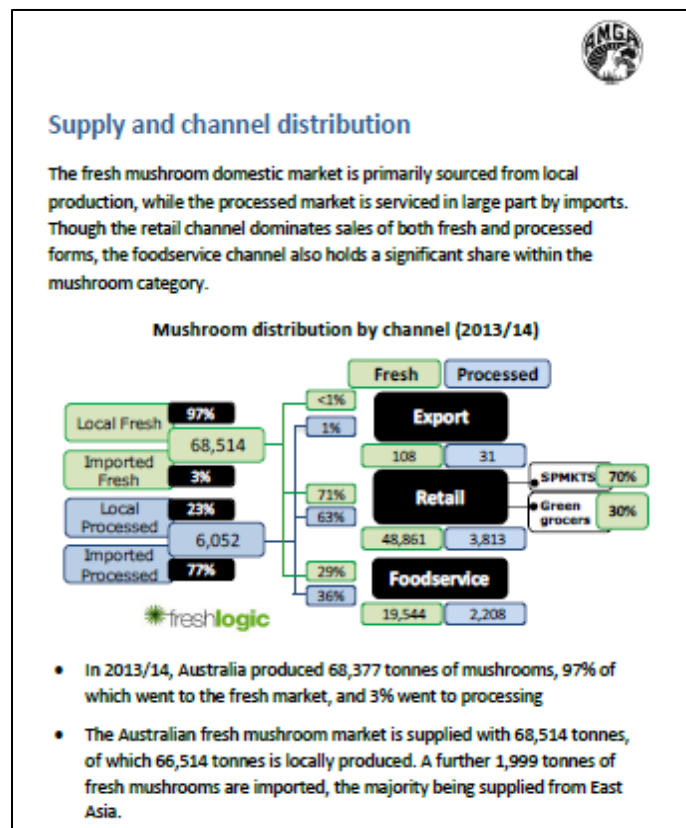
The 20 page document explored the dynamics and trends in the Australian fresh mushroom market.

It was compiled with consideration to informing decisions made at an industry level aimed at developing the overall fresh mushroom category.

Key topics included:

- Supply and demand distribution
- Production & International Trade
- Wholesale Pricing
- Contribution to the fresh produce market

- Fresh retail sales
- Retail promotional activity
- Retail range profile
- Household penetration
- Consumption profile & Per Capita consumption
- Mushroom range by retailer



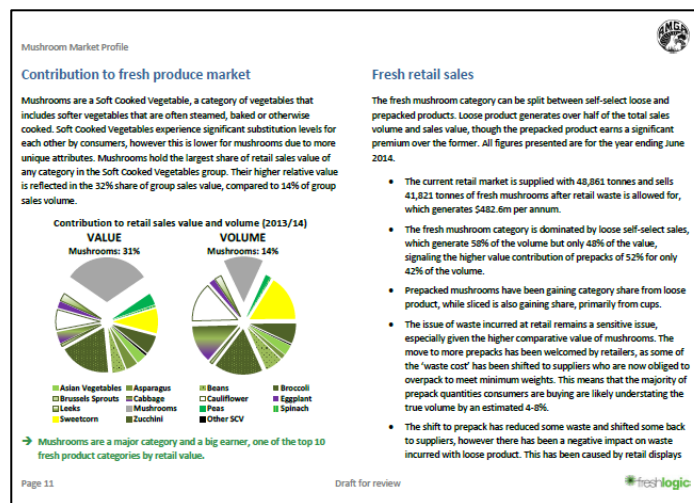
from loose to the pre-pack format.

Furthermore it added another layer of evidence to the strong levels of household penetration that mushrooms enjoy within the Australian with 38% indicated as purchasing weekly.

A key output was the development of a detailed distribution map for the Australian fresh mushroom market.

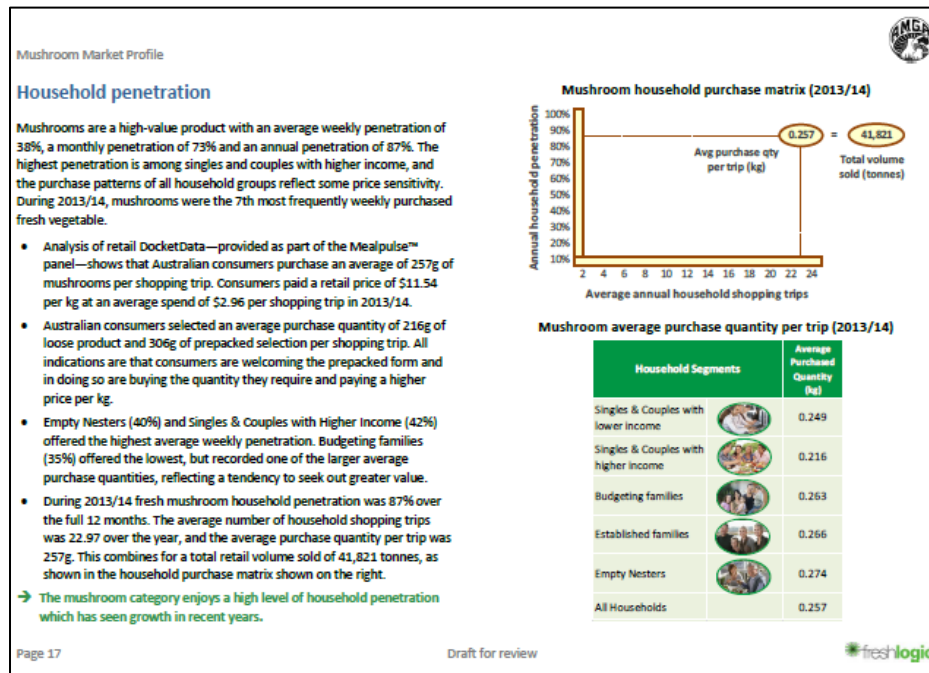
It provided a quantification of the volume split between retail (70%) and food service (30%). The scale of food service reconfirmed the requirement for the Industry to implement promotional activities that address both segments.

This information also assists in quantifying prospects identified in the HIA project MU12006 – Opportunities for Mushrooms in Food Service.



The analysis highlighted the strong contribution that mushrooms make to the overall vegetable offer within retail, contributing nearly 1/3rd of sales value of the soft cooked vegetable segment.

The Freshlogic report also supports the Homescan and Mushroom Monitor data in tracking a shift



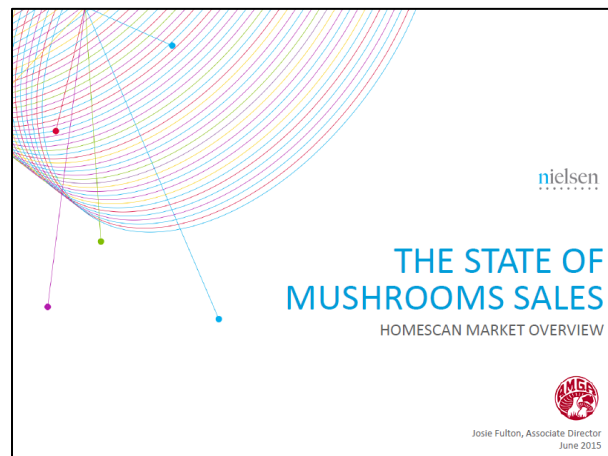
Mealpulse (shopper docket data) analysis showed an increase in the annual number of purchase occasions to 22.97.

The information in the Market Profile provided new models for understanding the fresh mushroom supply chain and retail market structure which have application for growers individually and the Industry as a whole. In addition metrics about purchaser behaviour and shopping patterns provided further directional guidance for Industry marketing and promotional planning.

Year 3 (2015)

'The State of Mushrooms Sales' – Nielsen Homescan (June 2015)

3rd study of channel, retailer and purchaser behaviour. Includes focus on state based channel / retailer performance



The 3rd Homescan report (32 pages) provided refreshed measures to update the baseline set of data.

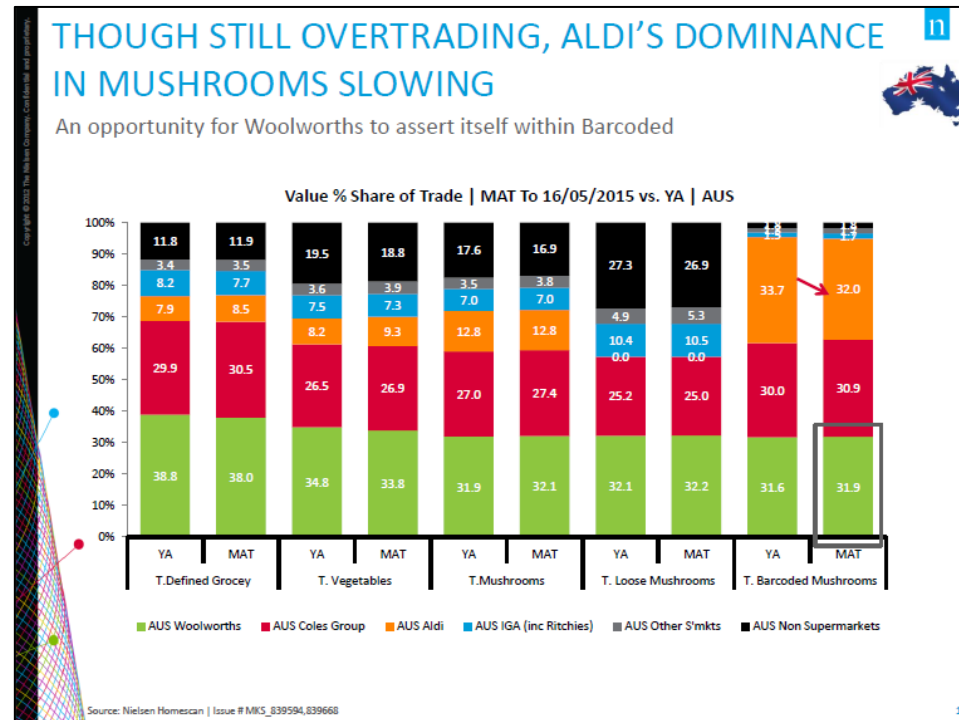
This has allowed for tracking of key metrics over time. For example the measured average value per purchase occasion has increased from \$3.10 in 2013 to \$3.20 in 2014 and finally \$3.42 in 2015.

In addition for this report, Nielsen were asked to undertake a detailed review of the variances

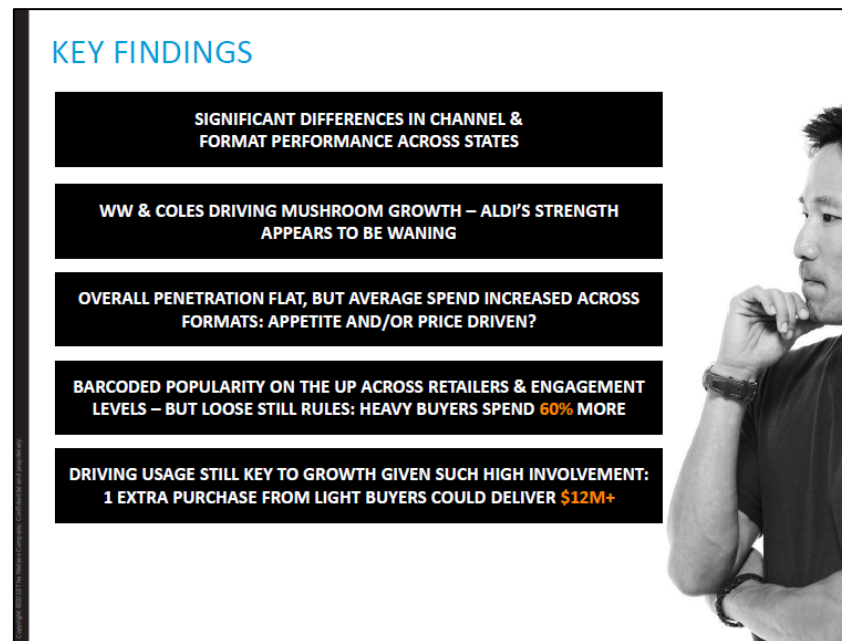
in performance of retailers by state. The objective was to ascertain if there are specific opportunities by retailer / channel in any given geography.

This insight was seen to be particularly relevant to growers, as well as the Industry in planning its supply chain engagement activities.

The 2015 update showed a further deterioration in the performance of greengrocers and a faltering in the over performance of Aldi.



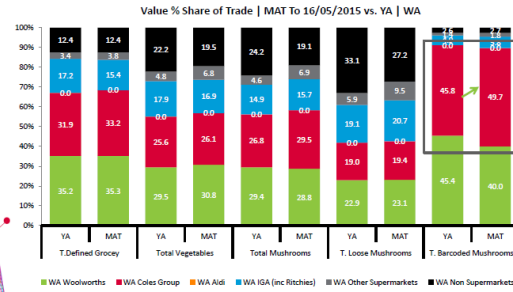
The Key Findings reinforced the continued growth of barcoded (pre-packs) mushrooms but the analysis again highlighted the importance of a credible loose offer to the overall performance of the category.



The deep dive into the state market share identified significant differences in retailer performances across the geographies. Furthermore the mix of loose and pre-pack sales also exhibited high levels of variation.

For example, Aldi's importance to the retail market is masked by the fact that it does not yet participate in the South Australian or Western Australian markets. It garners 12.8% share of total mushroom value nationally but achieves 17.7% in Victoria, 17.5% in New South Wales and 13.6% in Queensland – the states in which it currently has a presence.

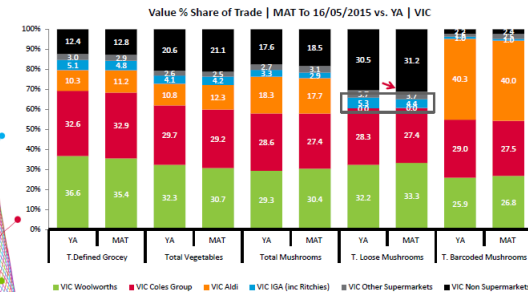
WA: BARCODED A HUGE STRENGTH FOR COLES – AND GROWING



Source: Nielsen Homescan | Issue # NM3_039596.039660

15

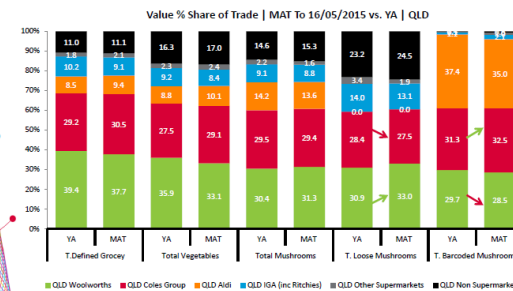
VICTORIA: IGA LOSING SHARE IN LOOSE, UNLIKE TOTAL VEGETABLES



Source: Nielsen Homescan | Issue # NM3_039596.039660

16

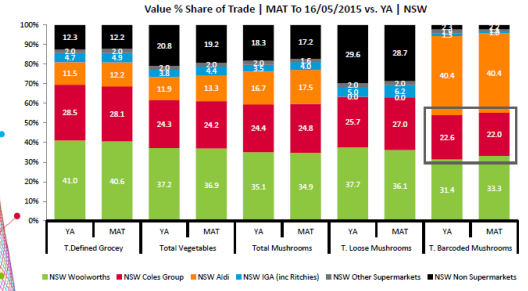
QUEENSLAND: THE BIG TWO APPEARING TO BE FOCUSING ON DIFFERENT FORMATS



Source: Nielsen Homescan | Issue # NM3_039596.039660

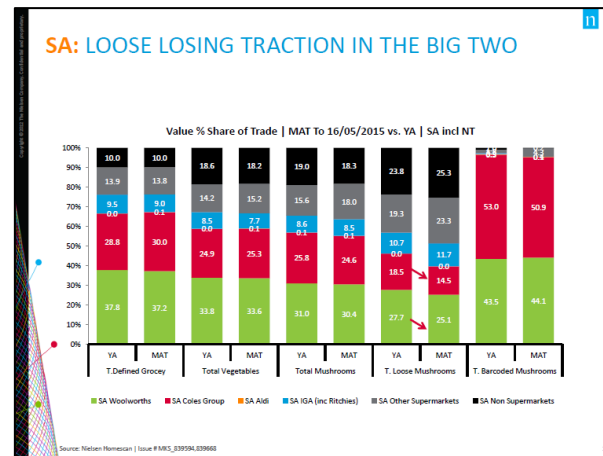
17

NSW: ALDI REMAINING STRONG, COLES HAVE WORK TO DO IN BARCODED



Source: Nielsen Homescan | Issue # NM3_039596.039660

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The information in the 3rd Homescan report allowed for review of progress on key metrics over the course of the project. The deep dive data allows the industry to quantify performance by retailer which is important for growers in their commercial decision making as well as for the industry as a whole when planning its Supply Chain Development program and the associated resourcing and promotional investment allocations amongst retailers / channels.

'Mushroom Monitor Qualitative Research' – Myriad Research (June 2015)
8x focus groups (Sydney / Melbourne) exploring affinity, knowledge, drivers and TVC review

Myriad Research
ENGAGE - INFORM - EMPOWER

HORTICULTURE AUSTRALIA
AUSTRALIAN MUSHROOM GROWERS ASSOCIATION

COMMERCIAL IN CONFIDENCE

Research Report
Final

Client: Horticulture Australia and the Australian Mushroom Growers Association

Project: Analytics for Mushrooms – Mushroom Monitor Qualitative Research

Conducted: March 2015

Reported: June 2015

T (03) 6244 2607 E mail@myriadresearch.com P PO Box 1000, Royston Park 7016
F (03) 6245 0023 W www.myriadresearch.com A 32 Bayfield Street, Royston Park 7016

Myriad Research undertook eight focus groups (four in Melbourne and four in Sydney) which comprised a total of 65 respondents (47 female, 18 male) in March 2015.

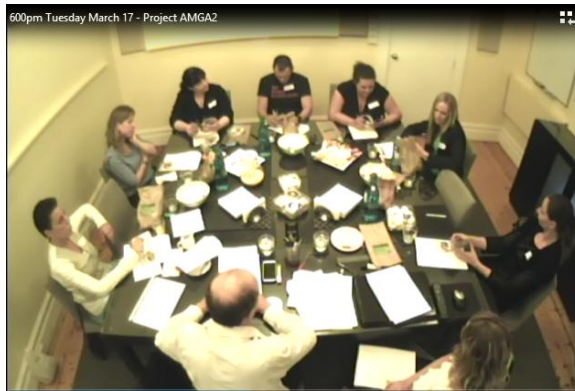
Group participants were the primary or joint grocery buyer and meal preparer for the household, had purchased mushrooms for the household within the last month and regularly consume the product.

The groups included a mix of mushroom purchase frequency – light (monthly), medium (at least fortnightly) and heavy (weekly), with a range of occupations (blue, white, grey collar) and residential locations across Greater Melbourne and Greater Sydney, including surrounding districts.

A final report comprising 76 pages was delivered in June 2015.

The research objectives were to conduct an in-depth investigation of consumer behavioural patterns, perceptions, attitudes and experiences, in particular exploring the following key aspects of the Industry marketing strategy:

- Retest that the health outcomes of regular consumption of mushrooms are a driver of sustainable behavioural changes
- The opportunities for increased household consumption of mushrooms, specifically via:
 - ~ inclusion within the regular suite of household recipes (*blendability*)
 - ~ inclusion as ingredients within new meal ideas (*inspirations*)



The groups covered a wide variety of topics such as a discussion about constraints and roadblocks to usage at home.

Findings were that; "there are some barriers to household consumption which may relate to:

- shelf life – a perception that they do not last as long as other vegetables (therefore smaller quantities bought at one time);
- store price – the prevailing store price (less bought when the price is higher), though generally not a major factor;
- not a staple – the fact that mushrooms are not generally regarded as a staple and therefore not an automatic inclusion on the household shopping list;
- household routine – the limitations of routine and available time in terms of household meal planning and preparation and the range of recipes used – *'just go with what I know'*;
- 'fussy' children – both pre-teens and teenagers – who for whatever reason are not (yet) fans of the product. The younger and older family groups had a range of strategies for getting past this barrier – creative presentations (including mincing or grating finely to hide their presence), associating the product with the positive health outcomes – *'if you want to be like He Man, eat your mushrooms'* – bribery, or just patiently *'waiting for my children's taste to mature and conform with the rest of the family'*.

Health and nutritional facts as an influence in the amount of mushrooms included in the diet

Participants were likely to report that the information provided at the groups in relation to **health and nutritional facts** would have a **strong influence** in increasing the amount of mushrooms they would include in their diet – 62% of total. An additional 20% of participants reported that exposure to the information at the sessions would have a moderate influence on their mushroom consumption – hence 82% in total reporting at least a moderate influence on their mushroom consumption.

Young singles/couples and those from the Melbourne sessions were more likely to report a likely strong influence on dietary consumption after exposure to the material, noting the lower pre exposure consumption of the young singles/couples segment. Some in the group reported that their consumption was unlikely to increase – being already at a high level.

The clear consensus across all groups was that **information reviewed** at the groups would have a **significant influence** on mushroom consumption in the household, or to quote the response from the Sydney young singles/couples – ‘Yes! Definitely! Absolutely!’

The increased household consumption is expected to come from **adding mushrooms to existing meals** – as a side with eggs for breakfasts, in salads, in spaghetti bolognese, blended in with burgers, as a side with chicken or steak, etc, etc – or as an **ingredient in new recipe ideas** (with the recipe brochures from the groups as a springboard) ... thus picking up both key aspects of the AMGA marketing plan objectives – *blendability and inspirations*.

The nutritional and health benefits of mushrooms will steer some of these consumers towards a more organised meal roster with one comment ... *I'm in the process of creating a 2 week roster – will try and increase more there. Make life a bit more organised, easier and healthier!*

There was a real impetus from the groups to be **more adventurous with mushrooms in meal preparation** (and for between meal snacks), for breakfast, lunch and dinner, in summer as well as winter (particularly in salads and on the BBQ).

One participant was moved to prepare the *mushroom, rice and quinoa salad* from one of the recipe brochures for a family gathering on the weekend following the Melbourne groups ... and send a photo to the researchers, very proud of her *new favourite dish* which was a winner with the family!

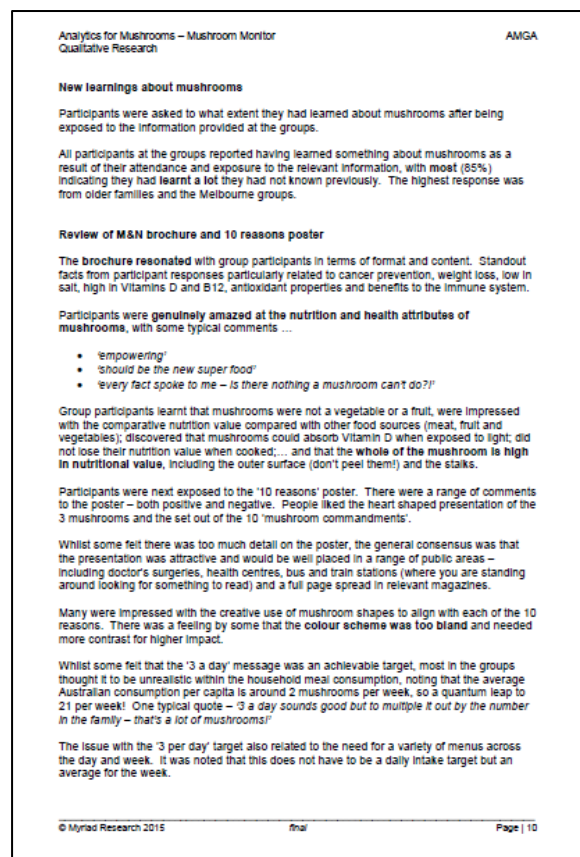
Another participant had already increased mushroom intake with a diet based on advice from health professionals – losing 40kgs in 12 months.

Exploration of the underlying knowledge about health outcome benefits of regular mushroom consumption revealed that;

“...Participants were genuinely amazed at the nutrition and health attributes of mushrooms, with some typical comments ...

- ‘empowering’
- ‘should be the new super food’
- ‘every fact spoke to me – is there nothing a mushroom can’t do?!’

Group participants learnt that mushrooms were not a vegetable or a fruit, were impressed with the comparative nutrition value compared with other food sources (meat, fruit and vegetables); discovered that mushrooms could absorb Vitamin D when exposed to light; did not lose their nutrition value when cooked;... and that the whole of the mushroom is high in nutritional value, including the outer surface (don’t peel them!) and the stalks.”



as winter (particularly in salads and on the BBQ).

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Another participant had already increased mushroom intake with a diet based on advice from health professionals – losing 40kgs in 12 months.”

One of the key aspects to be explored was if health and nutritional facts can act as an influence in the amount of mushrooms included in the diet.

The discussions provided strong validation of the general desire in the community to be better informed about the health benefits of eating mushrooms and that when they are, they would act.

Just over 60% said that access to health and nutritional facts would have a strong influence in increasing the amount of mushrooms they would include in their diet.

The report highlights;

“The increased household consumption is expected to come from adding mushrooms to existing meals – as a side with eggs for breakfasts, in salads, in spaghetti bolognese, blended in with burgers, as a side with chicken or steak, etc, etc

or

as an ingredient in new recipe ideas (with the recipe brochures from the groups as a springboard) ... thus picking up both key aspects of the AMGA marketing plan objectives – *blendability and inspirations*.

The nutritional and health benefits of mushrooms will steer some of these consumers towards a more organised meal roster with one comment ... *'I'm in the process of creating a 2 week roster – will try and increase more there. Make life a bit more organised, easier and healthier!'*

There was a real impetus from the groups to be more adventurous with mushrooms in meal preparation (and for between meal snacks), for breakfast, lunch and dinner, in summer as well

On the impact of the spend in dollar terms, the conclusion was that there was a ...“marked increase in estimated spend after being exposed to the information at the sessions – overall 33%.”.

Review of the new Power of Mushrooms TVC's provided good insights with a generally favourable disposition.

The 'Bag on Head' was divisive. According to the report; “the device certainly grabbed attention but the majority consensus was that it was not appropriate in this day and age, and was not needed within the advertising collateral.”



the rationale and underpinnings of the 'In the Dark' knowledge then supports both strategic direction Industry Marketing and Promotions program, in health focus areas.

In summary the research reported that; “the group consensus was that the TV advertising on its own would work to make consumers more aware of the nutritional value, and in conjunction with other marketing collateral would positively influence household mushroom consumption.”



The information in the Mushroom Monitor qualitative report reaffirmed positioning and campaign. This and tactical modes employed in the particular messaging approach and

Furthermore, specific feedback regarding TVC's, recipe cards and point of sale materials is useful for the Industry creative agency and other service providers in forward planning and enhancement of communication.

Outcomes

The key outcome of the project has been a dramatic increase in the depth of knowledge of the modern mushroom market and purchaser environment.

This insight has been a key input into good quality planning for the industry's annual Marketing and Promotional operational programs and the efficient and effective management of levy investments in marketing.

An update to industry participants was provided at the 2014 Australian Mushroom Growers conference in September 2014.

Copies of the conference presentation and associated project data were provided to individual levy payers upon request after the conference.

The seven individual reports of the project are available for download on the mushroom industry levy payers website.

Evaluation and Discussion

The project proceeded as planned and met its objectives.

The outputs were utilised in the way they were intended in the strategic and operational planning of industry Marketing & Promotional programs, informing the industry Supply Chain Development initiatives, and providing measures of strategic and operational outcomes of marketing levy investment.

Over the life of the project a series of key learning's were established:

1. The need for multiple datasets for cross-referencing on the same measures was reconfirmed many times during the project. No single data set/collection method provides absolute accuracy of the figures reported. This is primarily a function of different data collection and analysis methodologies used by the various service providers
2. Analysis and interpretation of the data generated by this project requires a deep understanding of the mushroom industry, the collection methodologies, the inter-relationships between the data sets, and an awareness of the impact of industry and retailer activities.

Taking the results and analysis from the service providers at 'face value' and without context may lead to incorrect or incomplete assumptions being formed.

For example, the changing purchasing dynamics related to the growth of pre-packs highlighted by multiple service providers during the course of the project were often reported as being driven by consumers seeking out 'convenience' in their shopping. But this is only part of the story and does not take into account a range of other factors that are influencing this shift.

Based on industry experience and market observations the project team was able to ascertain a number of other influences that impacted:

- Major retailer merchandising strategy – space allocation to pre-packs increased over the past 3 years;
- Major retailer pricing strategy – general reduction in price premiums for pre-packs compared to loose and reduction in differential between sliced and cup pre-packs;
- Major retailer promotional strategy – major increase in promotional frequency of pre-packs, coupled with aggressive price points on promotion – pre-pack price per kilo less than loose;

- 'Extra value' available in pre-packs – over packing provides on average 10-20% free product. Eg. 200 gram pre-pack = 250 grams in pack, 500 gram = 620 gram in pack



- Major retailer store operations – persistent presentation / out of stocks in loose, in particular during peak trading hours. Poor store disciplines and lack of staff major contributors.



Unavailability of loose drives some consumers to pre-packs (and others to abandon their planned mushroom purchase). Additional research work done (outside MU12005) quantifies the annual impact in retail sales in excess of \$20 million.

3. Whilst the current annual reviews undertaken in the project were appropriate, there is a case to consider more frequent updates of certain data sets. This would provide better insights into seasonality and closer monitoring of market responses to industry activity. Consideration would need to be given to assess the additional cost versus the marginal benefit.

4. New data sets, in particular retailer loyalty data and new observational techniques have become available since the project commenced, The appropriateness of these emerging modes should be evaluated for inclusion in future industry research. Furthermore, the emergence of new tools to incorporate and analyse multiple data streams from diverse sources ('big data') should also be factored. In addition, specific new evaluations of various factors (such as media performance) will likely be required as the industry moves to increased allocations of investment in mass media as part of its forward marketing and promotional programs.
5. Given general pricing increases from service providers in delivering the data sets in MU12005 and taking into account points 3 & 4 above, the cost to provide future analytics support and insight will require a significantly larger investment than the current project.
6. The opportunity for a well-structured and detailed industry discussion about future data needs for the mushroom industry should be a part of any future analytics project. Consideration of combining the industry analytics project (MU12005) with the recently completed MU08011 - Mushroom Industry Statistics project to develop an industry 'super data' project should be considered.

Recommendations

The analytical needs of the mushroom industry are becoming greater as planning, evaluation and management of the industry's levy investments becomes more sophisticated. New data sources are available for any ever-increasing range of industry activities, and the measurement and reporting tools to leverage the information are becoming more powerful.

The information collected in this project remains highly relevant however it is recommended that information be collected regularly at shorter time intervals to maintain an industry database that can be used widely to better inform strategic and operational decision making.

It is recommended that a new analytics project be established by the Australian mushroom industry.

This should include:

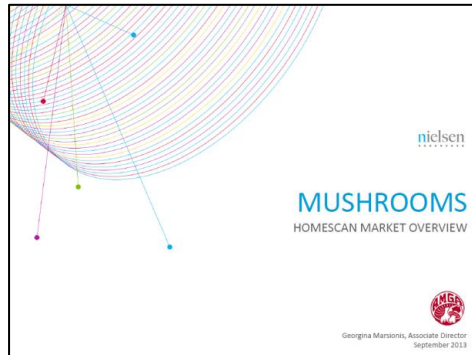
1. A consultative review by industry of the future research and analysis needs of the industry. The review should contain a recommendation on the datasets, collection/reporting frequency and insights that the industry will require for the future.
 - It should reference and be embrative of the recently completed HIA Project MU08011 - Mushroom Industry Statistics, with the potential to develop an inclusive project.
2. A new project be developed based on the recommendations from (1) above;
3. A new multi-year project be commissioned immediately to ensure there is continuity of datasets.

Acknowledgements

All service providers are acknowledged for their thorough and timely provision of the briefed outputs they were commissioned to provide. In addition, they are to be lauded for their commitment to answering questions and information if requested, and/or providing additional data that added value to the project.

Appendices

1. Mushrooms Market Overview – Homescan - Nielsen (September 2013)



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130915 Mushrooms
- Homescan Market

2. Loose Mushrooms or Lose Shoppers – Homescan - Nielsen (August 2014)

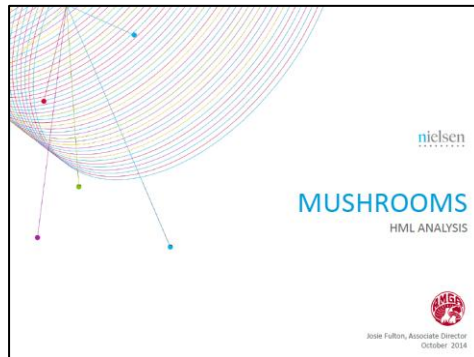


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140828 Mushroom
Deep Dive.pdf

3. Mushrooms – Homescan HML Analysis - Nielsen (October 2014)



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4. Mushroom Monitor Quantitative Research – Mobium Group (October 2014)



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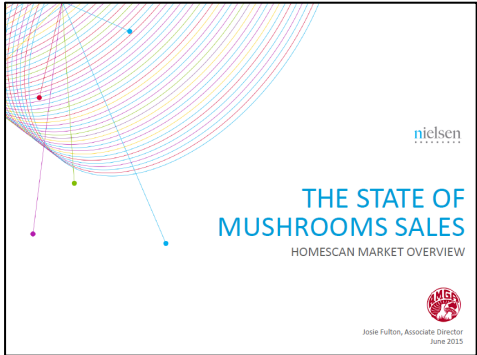
5. Australian Fresh Mushroom Market Profile – Fresh Logic (November 2014)



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6. The State of Mushroom Sales – Homescan - Nielsen (June 2015)



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7. Mushroom Monitor Qualitative Research – Myriad Research (June 2015)



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