

# **Horticulture Innovation Australia**

## **Final Report**

### **Opportunities for Mushrooms in Food Service**

Greg Seymour

Australian Mushroom Growers Association

Project Number: MU12006

## MU12006

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Fax: (02) 8295 2399

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## Summary

Opportunities for Mushrooms in Food Service (HIA project MU12006) was a multi-year project that delivered comprehensive market analysis and opportunity identification which can be used by the mushroom industry to develop future strategic and operational plans to encourage the use of mushrooms within the Australian food service industry.

Over the three years of the project a wide variety of general market data related to the Australian Food Service market and the specific use of mushrooms was 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 project plan for the Opportunities for Mushrooms in Food Service project was divided into three stages as follows:

Stage 1 (2013/14) – Market Mapping and Mushroom Food Service Opportunity Blueprint

Stage 2 (2014/15) – Collaborative Research projects with three food service sectors

Stage 3 (2015) – Mushroom Industry Food Service Strategic Direction and Recommendations report

The key outcome of the project has been a substantial increase in the depth of knowledge about the structure and operations of the Australian food service market, and the identification of opportunities and initiatives that could increase the use of fresh mushrooms in the sector.

The information is relevant to individual growers, and the industry as a whole, and can be used to develop strategies and tactics that can enhance the use of fresh mushrooms in food service.

It is recommended that:

1. a specific Food Service marketing and promotional plan be developed as part of the industry levy funded M&P program;
2. addressing food industry professionals should be the initial focus to build on the outcomes delivered by the Collaborative Projects;
3. funding of dedicated human resources to manage mushroom industry food service promotional and engagement activities be provided;
4. a plan be developed to focus on sustainable volume opportunities for fresh mushrooms, in particular by engaging with key decision makers in High Quantum of Influence organizations;
5. a plan be developed to target high volume food processors and value-adders to explore the use of fresh mushrooms as inputs, and/or finished

products.

6. a new mushroom industry food service professionals ("business") website and associated digital communication elements (such as an e-newsletter) be developed.
7. a new research project should be commissioned to investigate the potential for leveraging the 'clean and green' Australian positioning and identity and quantify potential Asian markets for value-added/processed Australian mushroom products.

## Keywords

Mushrooms; Food Service; Market; Value-Added; Supply Chain; Segments

## Introduction

The supply of fresh agaricus mushrooms in the Australian market was expected to grow by 30% by 2016.

In 2013, the majority (~70%) of fresh mushrooms are sold to consumers via retail outlets.

The industry was seeking to explore all available options to take up the expected volume in a profitable manner.

The food service (fs) sector in Australia is large, diverse and growing, with an estimated annual value exceeding \$45 billion.

Mushrooms had made some progress in fs, in particular with promotion to restaurants and cafes (Mushroom Mania being a major promotional activity). At the time it was estimated that ~23% of industry volume for fresh mushrooms was taken up by the food service channel.

However, the broader 'commercial' fs market opportunity was largely under-developed by the mushroom industry.

A variety of high volume commercial channels exist including government (defense & prisons), mining and remote sites, airlines, educational institutions, aged & health care, sport and leisure facilities and corporate catering.

However little was known about current usage patterns of mushrooms in the 'commercial' channels - who the key decision makers are, what their criteria is and what considerations the mushroom industry must consider to underpin further expansion in the sector.

To provide a strong fact base to underpin investment decisions a multi-stage research project was proposed to deeply understand the operations of various food service sectors, design effective engagement programs, and develop appropriate communication and product strategies to enhance the ability to sell more fresh mushrooms in the food service industry.

The desired outcome was to ensure that the Australian mushroom industry has the necessary information to expand the food service market for mushrooms.

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

## Methodology

A project team was formed comprising mushroom industry experts, food service industry specialists and market researchers. Other specialist resources were engaged as required to deliver specific components of the project.

The project plan for the Opportunities for Mushrooms in Food Service project was divided into three stages as follows:

Stage 1 (2013/14) – Market Mapping and Mushroom Food Service Opportunity Blueprint  
Stage 2 (2014/15) – Collaborative Research projects with three food service sectors  
Stage 3 (2015) – Mushroom Industry Food Service Strategic Directions Report

A multi-faceted range of data and inputs was collected and analysed as follows:

### Stage 1 - Market Mapping and Mushroom Food Service Opportunity Blueprint

- a. Desk Research – market / structure / supply chain investigation via secondary data sources.

A range of publically available market (eg. Foodmap) / company data, as well as syndicated proprietary research (such as IBIS World, BIS Shrapnel) was accessed to gain a detailed understanding on the market dynamics, sector configurations, supply chain characteristics and other demand and supply side issues.

- b. Depth Interviews – guided discussions with a cross section of food service supply chain participants and suppliers.

The interviews gathered baseline data on:

- the menu development and buying process across a variety of sectors;
- identification of the key decision makers and their criteria;
- current usage rates and perceptions of mushrooms, as well as feedback about barriers, issues and opportunities.

This data was analysed and aggregated to form the basis of a detailed Market Map.

Subsequently, a comprehensive Mushroom Food Service Opportunity Blueprint report was developed which summarised all mapping activities, and recommended three priority sectors for the development of detailed engagement programs. The choice of sectors was determined based on the recommendations provided in the Mushroom Food Service Opportunity Blueprint in consultation with the Principal Investigator.

A presentation was made to the Mushroom Industry Advisory Committee (MIAC) in March 2014 summarising the work to date, and outlining the rationale for the three proposed focused sector projects.

The projects were supported and endorsed by MIAC at that meeting.

#### Stage 2 – Collaborative Research projects with three food service sectors

The objective of this stage was to initiate partnerships to develop and test initiatives that addressed the identified opportunities, barriers and issues from the mapping stage.

The aim was to generate insights into factors including supply chain, product (including possible value-added formats) and communication approaches that most effectively support the consideration and adoption of mushrooms on a regular basis in menus within in the sector.

The three projects were:

Project 1 - Methods for developing sustainable partnerships with High Quantum Food Service Key Decision Makers

Project 2 – Exploring Digital Resource Requirements for effective Food Service industry communication

Project 3 – Assessing Opportunities for fresh mushroom Value Adding in Food Service / Manufacturing

The rationale, objectives, process and outcomes of each sector research project were compiled into three individual reports.

An executive summary and overview report was also developed to summarise key findings.

#### Stage 3 – Mushroom Industry Food Service Strategic Directions Report

The final stage of the project was to distil key findings and learning's into a Mushroom Industry Food Service Strategic Directions Report outlining best practice approaches and recommendations for ongoing strategies and tactics to best capture opportunities within food service on an ongoing basis.

## Outputs

MU12006 was made up of three individual output reports.

Overviews of the data collected during the project was recorded in series of milestone reports to HAL/HIA.

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.

The outputs from each report (in time sequence) follows.

### Stage 1 - Food Service Market Map & Opportunity Blueprint (2013/14) – reported June 2014

#### **Food Service Market Overview**

##### *Defining the Australian Food Service Market*

'Food Service' (fs) generically describes those organisations and companies who provide meals prepared outside the home. The vast majority of this food is also consumed by individuals away from home.

The market is characterised by enormous diversity in terms of venue, food type, quality, delivery format and price.

From fine dining, to fish and chips, food vans to home delivery, wedding catering to airline food there are nearly 75,000<sup>1</sup> outlets servicing the Food Service market in Australia.











1. s. 24 - Food Service Market Prospects – Australia and South East Asia, BIS Shrapnel Foodservice Sydney, SA Food Summit presentation, June 2012

*Australian Food Service Market Drivers*

Eating out of home is now an entrenched consumption mode across the Australian community.

Demand for food service and the options provided by the industry is driven by a range of social and economic factors.

These include:

<u>Social / Economic Trend</u>		<u>Impact / Implication</u>		<u>Food Service Response</u>
Time poor / 'right now' mentality		Increased focus on convenience and time-saving measures		Growing prevalence of out-of home eating, pre-prepared options and On the go formats
Household financial budgets stretched		Cost /value conscious		Value options and 'meal deals' proliferating in many out of home formats – cheaper than cooking at home
Increased emphasis on individual health and wellbeing		Preference for nutritional and 'fresh' food		Menu innovation provides healthy options when eating out of home
Multi-cultural and global influences		Seeking new experiences / tastes		Diversification of cuisine types and venue options / food formats
Focus on corporate efficiency		Core business provision and improved return on investment		Outsourcing of food preparation to specialist providers in various facilities

### *Australian Food Service Market Dynamics*

The total food service industry is a high value sector of the Australian economy.

FOODmap analysis undertaken by Freshlogic in 2012 estimates the market to be atleast \$A32.5 billion<sup>1</sup>.

IBISWorld<sup>a</sup> data indicates that the market is larger - around \$A45 billion per annum.

According to the Australian Foodservice Market 2012 research, published by industry research provider BIS Shrapnel approximately 35 cents in the dollar of total household food & beverage spending in Australia is allocated to out of home, up from 25 cents in 1980<sup>2</sup>. Accounting for food spending only, FOODmap data estimates 27% of total household food spending is attributable to food service<sup>3</sup> in 2012.

The FOODmap report also highlights that around 40% of all vegetables by volume are sold through food service channels<sup>4</sup>.

The Australian Foodservice Market 2012 report indicates the total annual industry food and beverage purchases exceeds \$A15.5 billion dollars<sup>5</sup>. Total purchase volumes into food service across all food and beverage classes amounted to 2.8 million tons in 2011<sup>6</sup>.

In total it is estimated that over 4.7 billion meals are served annually<sup>7</sup>.

The market is highly fragmented with a variety of segments operating that service different types of outlet types.

At a macro level the market is typically split into 'commercial' and 'institutional' sectors.

Commercial includes segments such as:

Full service restaurants (FSR), Quick Service Restaurants (QSR) – aka 'Fast Food', Café's, Accommodation, Pubs&Clubs, Function Centres, Sporting & Attraction Venues and Event Catering

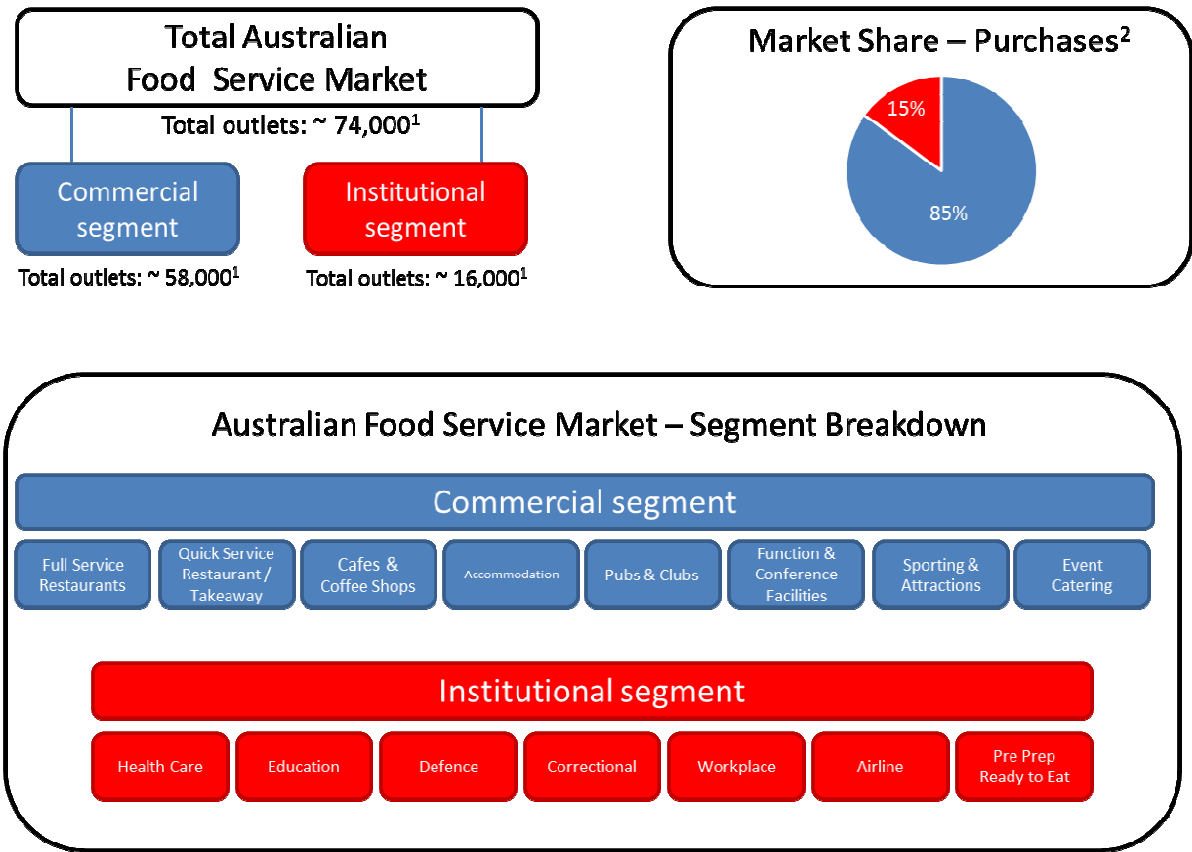
The institutional component includes:

Health, Education, Defence, Correctional, Workplace, Airline Catering and Pre-Prep Ready To Eat (RTE)

Supporting these operators is an extensive industry supply-chain comprising food producers, processors, wholesalers, distributors and value-adders that provide inputs into the final product.

1. p. 10 / 3. p. 83 / 4. Fig 75 p. 83 - FOODmap: An analysis of the Australian food supply chain, Department of Agriculture, Fisheries and Forestry, Canberra, July 2012
2. s. 13 / 5. s. 26 / 6. s. 26 / 7. s. 24 - Food Service Market Prospects – Australia and South East Asia, BIS Shrapnel Foodservice Sydney, SA Food Summit presentation, June 2012
- a. Aggregation of IBISworld Industry reports – H4511A Restaurants in Australia (June 2013), H4511B Cafes & Coffee Shops in Australia (June 2013), H4513 Catering Services in Australia (October 2013), H 4512 Fast Food Services in Australia (May 2013), H4530 Social Clubs in Australia (Sept 2013), H4520 Pubs, Bars and Nightclubs in Australia (October 2013)

Australian Food Service Market Map - Summary

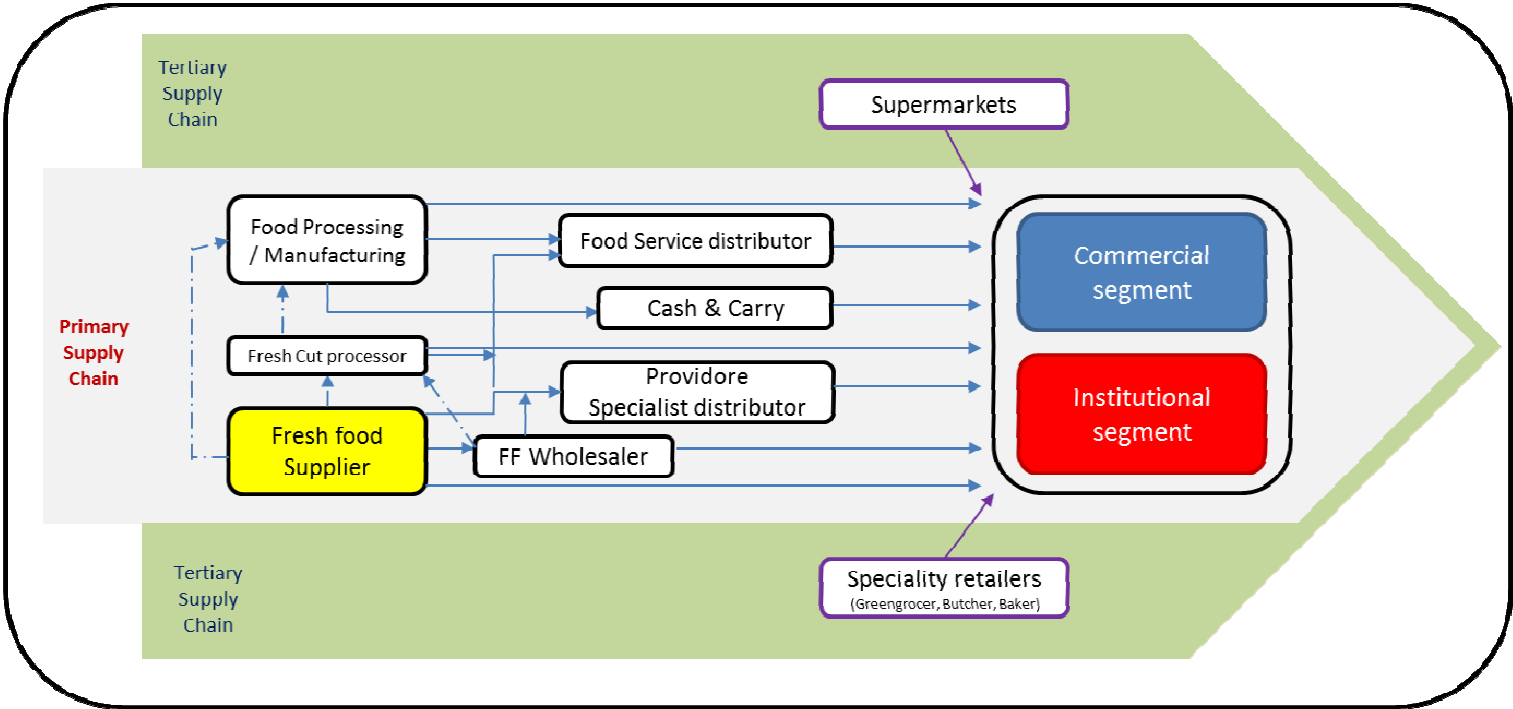


1. s. 24 / 2. s. 27 - Food Service Market Prospects – Australia and South East Asia, BIS Shrapnel Foodservice Sydney, SA Food Summit presentation, June 2012

Australian Food Service Market Map – Food Industry Supply Chain

The supply chain for fresh food products to the end user in the food service sector is typically through intermediaries – wholesalers and distributors playing a vital role in the aggregation and delivery process.

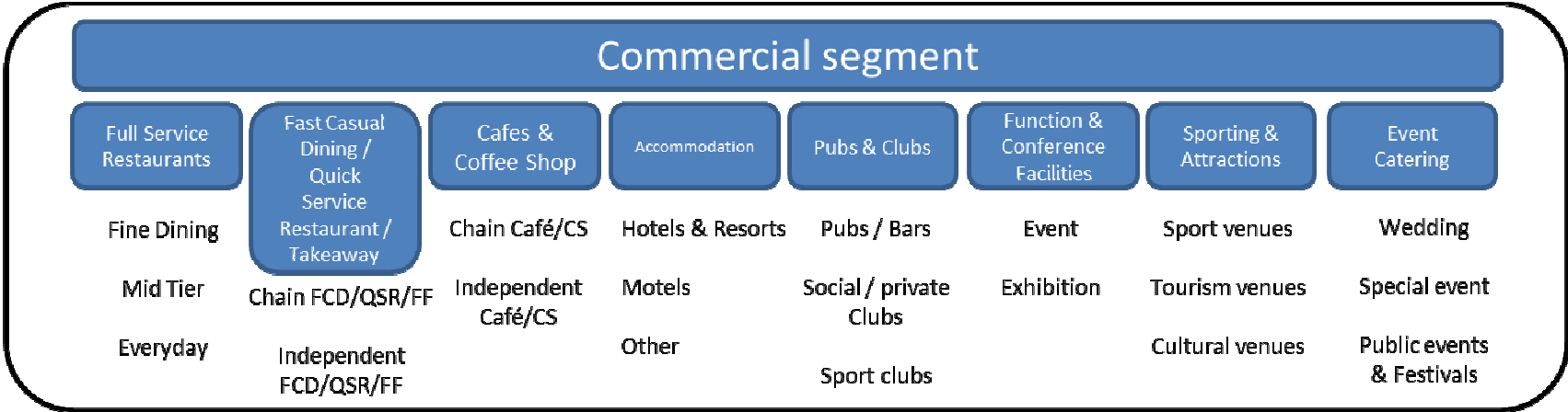
In some instances direct relationships are established between suppliers and food service end customers in high volume situations.



<u>Food Processing / Manufacturers</u> Provide bulk inputs / finished product for use in meal preparation to the fs industry. Examples include: Simplot, Nestle, Unilever, Fonterra, Prestige Foods, Kraft, Snapfresh.	<u>Fresh Food Wholesalers</u> Provide sales / agency services on behalf of growers. Customers include direct fs customers and providores / specialist distributors Examples include: Fresh Produce Group	<u>Food Service Distributors</u> Provide supply and delivery of a range of ingredients / inputs / finished product to the fs industry. Focus on range breadth and one point solution. Examples include: PFD, Bidvest, Nationwide, Combined, NAFDA, Sealane	<u>Providores / Specialist distributor</u> Provide supply and delivery of fresh produce (some include value-adding services) . Focus on quality Examples include: <i>Dimattina</i> , Tasty Chips	<u>Cash &amp; Carry</u> Provide self serve supply of wide range of fs inputs (typically non fresh food) Examples include: Campbell's Cash & Carry
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*Australian Food Service Market Map – Commercial Segment Overview*

The commercial segment of food service encompasses a diverse range of hospitality venues serving an array of different food types.



This component of food service is typically 'consumer facing' whereby it provides meals to end users who make active choices about the food they wish to consume and the outlet from which they purchase.

Some sub segments such as sporting venues and attractions (museums, fun parks) and public events & festivals are more 'captive' whereby choices are limited to those provided by the venue/event organiser – though even within this environment there are often diverse options available – from snack based take-away to fine dining.

The commercial segment is generally dominated by independent owner/operators with large portions of the restaurant, café, accommodation and pub & club trade being single outlets.

Much of the food prepared by independents is created from scratch using on premise kitchens by in-house staff to meet the needs of their chosen audience.

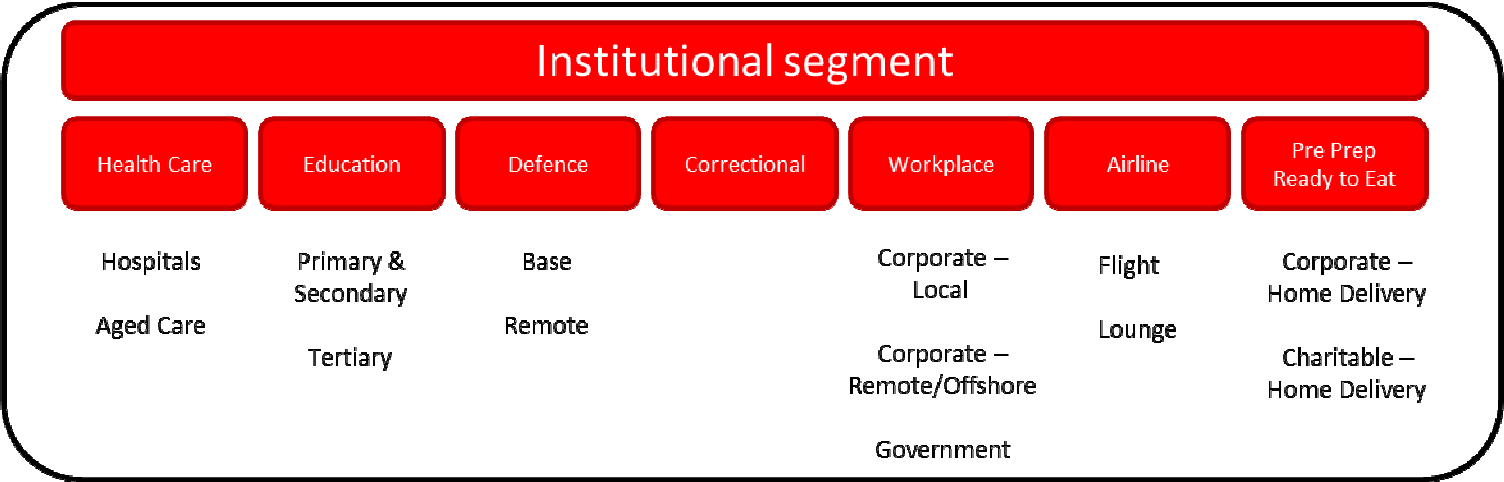
Chain operators are stronger in the FCD/QSR space with franchise and company owned stores proliferating and gaining market share at the expense of independent outlets. In multi-store chains consistency is paramount and so there is a stronger emphasis on specifications and pre-preparation – with many ingredients and components either supplied par cooked or from nominated supplier to an agreed standard and often with

some value-added.

As venues scale in size there is more likely to be an increase in pre-preparation or out-sourcing of the food prep and service function to catering contractors.

*Australian Food Service Market Map – Institutional Segment Overview*

The institutional segment of food service typically services mass audiences within a ‘captive’ situation. Often the customer has little choice but to participate in the meals offered due to circumstances (hospital, prison, remote work site) or is constrained by the setting such that alternative meal options are not easily available (airline, education).



In the institutional segment meals are typically produced at scale to service large numbers. In some circumstances this could mean the requirement of thousands (or tens of thousands) of meals per day per site. In most cases this sees menu choices planned well in advance and often to a rotating schedule. Selections on any given day may include a small variety of choices.

The production of these meals can range from on-site scratch preparation through to pre-prepared meals that only require ‘heating for eating’ on site. In the institutional setting many organisations have chosen to outsource meal preparation to specialist catering organisations as meal supply is not part of their core expertise.

In many instances the food preparation is undertaken in large format off-site kitchens who specialise in mass production and can sustain large volumes. Food provided to the airline industry and the pre-prep RTE home delivery are examples.

In many institutional settings the nutritional aspects of the meals provided is important due to the nature of the audience (health care, education, defence, correctional) where regulations and guidelines, as well as welfare issues mandate nutrition standards are met.

This impacts on the menu development within these organisations.

#### *Australian Food Service Market Map – Menu Decision Process / Key Decision Makers*

For any ingredient (including mushrooms) to be included in a menu in the food service environment there are a small number of key decision makers involved.

Depending on the nature of the operation these could be a single person or a team.

For example in a local restaurant the owner may be the sole decision maker in relation to menu selection. Often times this may be in consultation with the chef (if not the owner).

In an operation with greater scale many people are potentially involved.

These may include:

- Commercial Managers who set margin requirements, develop food budgets, monitor profitability and assess performance;
- Consulting and Executive Chefs who establish menus based on the commercial requirements as well as the audience;
- Nutritionists and / or dieticians who assess various health aspects of menu items (sometimes to ensure compliance with legislated guidelines)
- Production / Operational Managers who have day to day on-site management of meal preparation and provide feedback on issues on menu items in terms of taste / quality / ease of preparation in a mass production environment

In any circumstance the decision makers will take into account the dynamics of the customer / consumer being served.

This audience assessment will include food preferences and requirements such as convenience and health aspects. This is balanced against the commercial implications – in particular the margin requirements. Other considerations include the facilities available as to the nature of the food preparation.

Menus are then developed taking into account these aspects and focus on variety of options to satisfy the customer consumer within a series of price points.

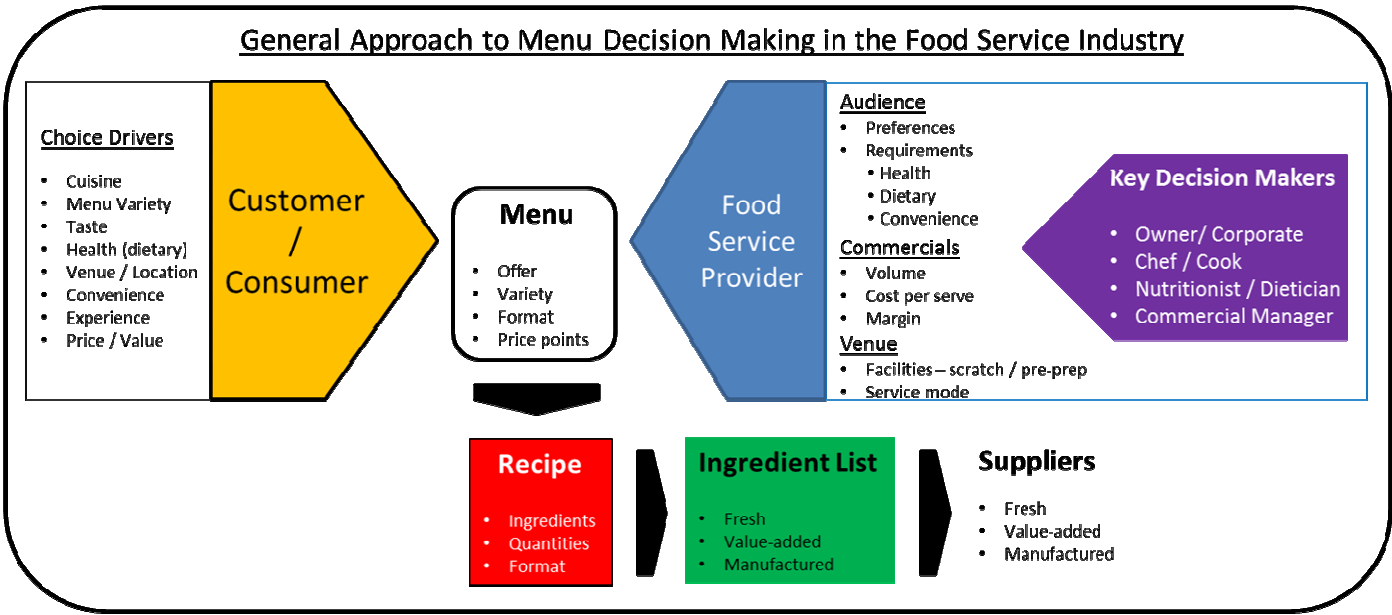
Once the menu is settled recipes are developed which dictate the ingredients required and quantities needed.

For any meal this usually includes a range of fresh and/or value-added and/or manufactured ingredients.

In high volume segments the menu is often 'fixed' in advance with tight specification of ingredients and preparation to ensure consistency. In some situations a rotating menu is used to increase variety within a set repertoire.

In the restaurant or café segments menu items are often changed based on the success of the meal or to provide seasonal variety / increased interest. 'Specials' provide a facility in certain sectors to have a base menu and then on a daily or weekly basis add extra menu items.

Influencing key decision makers is the key to increasing consideration for any given menu item (and ingredient inclusion).



### *Australian Food Service Market Map – Competitive Landscape*

In general the Australian Food Service industry has a low level of concentration with tens of thousands of single outlet owner operators competing against a relatively small number higher scale multi-outlet operators.

Within this context there are around 25 'mega' players who cross into multiple segments of the food service industry and service outlets counts in the hundreds and even thousands.

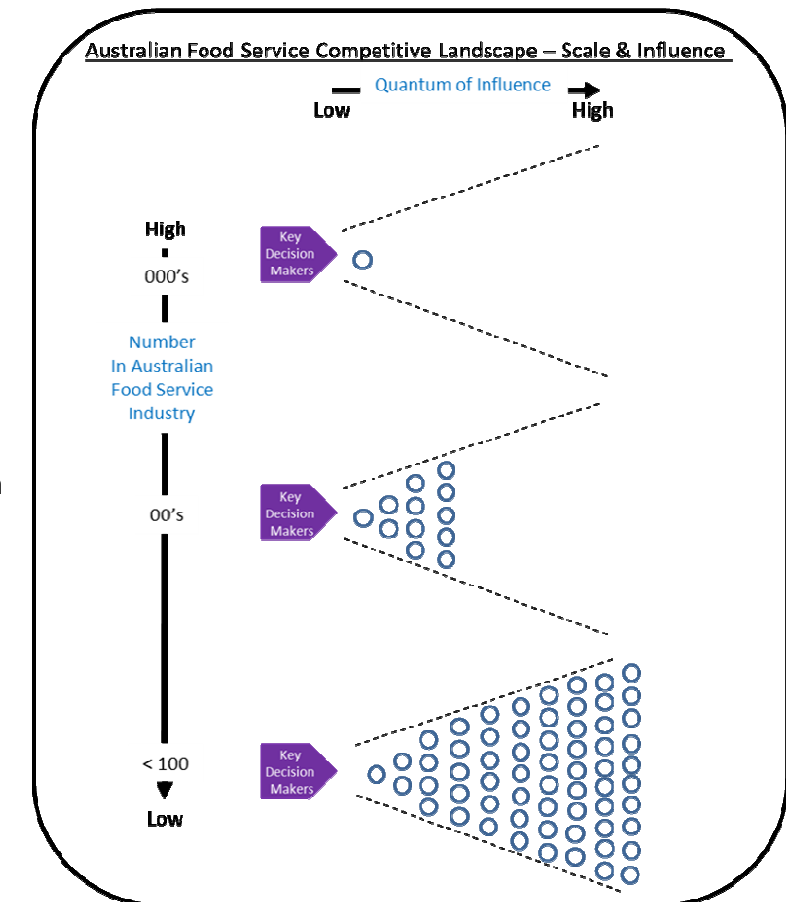
Additionally around 40 'chain' food service operators with more than 100 stores operate in Australia, typically in the FCD, QSR and Café segments.

In these environments decision making is often centralised with 'corporate' decisions on menu flowing through to the various points of final distribution for their food offers.

The decision makers in these organisations though relatively few in overall number, have a significant quantum of influence in terms of volume generated.


In summary those in the high quantum of influence category provide an efficient approach for suppliers as one set of decision makers can drive the outcomes for multiple locations.

This compares with single outlet owner operators which are numerous but only have a low quantum of influence as they only make menu decisions that impact on one point of distribution.



Australian Food Service Market Map – Selected Major Operators

**Compass Group**



COMPASS GROUP

Corporate Head Office  
35-51 Mitchell Street,  
McVahons Point, NSW 2060  
compassgroup.com.au

Health Care	Education	Workplace	Function & Conference Facilities	Sporting & Attractions	Event Catering	Quick Service Restaurant / Takeaway / Cafe
Hospitals Aged Care	Primary & Secondary Tertiary	Corporate – Local Corporate – Remote/Offshore Government	Event Exhibition	Sport venues Tourism venues Cultural venues	Wedding Special event Public events & Festivals	

In 1941, 'Factory Canteens Ltd' was founded in the UK. Over 60 years the company has grown to be one the worlds largest hospitality and facility management firms. Compass commenced operations in Australia in 1965, with Compass Group formed in 1999.

Over the years a number of global acquisitions have seen other brands enter the stable including Eurest as well as sector specific offshoots – Medirest (hospitals and aged care) and Scholarest (education).



In Australia further acquisitions of Life's a Party Group (2010) and Heritage Catering Services (2011) have provided further scale and sector spread. IBISworld estimates that in total Compass group brands generate \$A1.2 billion<sup>1</sup> in annual revenue from catering services, making them the largest food service operator in Australia. It employs over 11,000 staff and has a footprint in 600 locations.


Recipe creation within Compass Group is inspired by a network of consultant chefs. With its global reach the Australian business is influenced by Michelin starred Albert Roux, Michel Roux Junior, Gary Rhodes and Wolfgang Puck.

In Australia, they partner with Sean Connolly (*Astral, Sean's Kitchen, The Grill by Sean Connolly, The Morrison*) who develops seasonal signature menus, in addition to one-off menus for VIP events. He also spends 'hands on' kitchen time with Chefs in training, developing and coaching in ensuring their offer is continually being revolutionised.

The operational team include dozens of executive chefs supported by kitchen teams in each facility.

1. IBISworld Industry report – H4513 Catering Services in Australia (October 2013) and information extracted from Compass Group website - compass-group.com.au

**Sodexo**



National Support Centre  
Level 8, 607 St Kilda Road  
Melbourne VIC 3004  
au.sodexo.com // ssds.com.au


Health Care

Hospitals  
Aged Care

Education

Primary & Secondary  
Tertiary

Defence

  
Base  
Remote

Workplace

Quick Service Restaurant / Takeaway, Cafe

Branded QSR/FF

Founded in 1966 in Marseilles, France, Sodexo is now the worldwide leader in outsourced facility management including catering and hospitality. Globally, the company employs over 413,000 people in 80 countries and has over €18 billion in annual revenues.

In Australia Sodexo operates in a range of sectors, including Mining, Oil and Gas, Corporate, Education, Retail, Seniors and Defense (52 sites) across 300 locations. The current workforce stands at 6,000 employees and revenues exceed \$885 million. It is estimated that \$A400m<sup>1</sup> is derived from catering services.

For example in the corporate sector Sodexo provides catering services over 40 sites – primarily in the professional (eg. PWC), and legal sectors, as well as manufacturing plants (eg. General Mills).

The company has embarked on a number of initiatives to improve the healthiness of their meal choices including:



**Culinary Council**  
A sodexo INITIATIVE

**VISION:**  
To be the custodians and knowledge sharing of "culinary excellence" across Sodexo Australia – menu innovation, trends, food standards, best practices and continuous improvement.

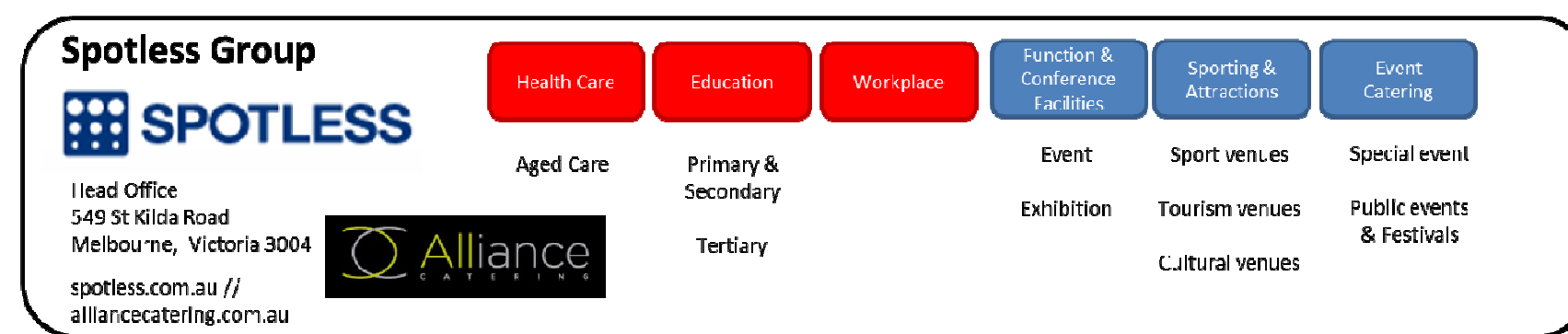


**STRATEGIC FOCUS:**

- 1 Culinary Excellence
- 2 Contemporary Menus
- 3 Food Standards & Continuous Improvement
- 4 Chef Development
- 5 Sustainability

- Culinary Council – a cross Sodexo program aimed at knowledge sharing on ‘culinary excellence’ across the group
- Smartfuel - easy to identify options that are low in sugar, salt and fat)
- Simply to Go - fresh & healthy ‘eat on the run’ pre-packaged meals)

1. IBISworld Industry report – H4513 Catering Services in Australia (October 2013) and information extracted from Sodexo websites - au.sodexo.com & ssds.com.au



Spotless Group is an Australian owned, managed and operated provider of integrated facility management services.

A key component of the offer is contract catering and hospitality management with over 50 years experience in this sector. Estimated revenue from catering operations was \$A644 million<sup>1</sup>.

The company provides catering sectors across a variety of high volume sectors under its own brand (Spotless Catering) and others that it has acquired. These are MODE Group, Mustard Catering and Alliance Catering.

Spotless has major contracts with various high profile venues and events such as the Melbourne Cricket Ground, The F1 Grand Prix, Perth Convention Centre as well as remote sites such as BHP Pilbara.

Alliance is one of the largest food service providers in the southern hemisphere specialising in the distinct needs of the education, business and aged care markets. Each day they service over 180,000 individuals in corporate and industrial workplaces, aged care facilities, primary and

secondary schools and tertiary institutions across Australia.

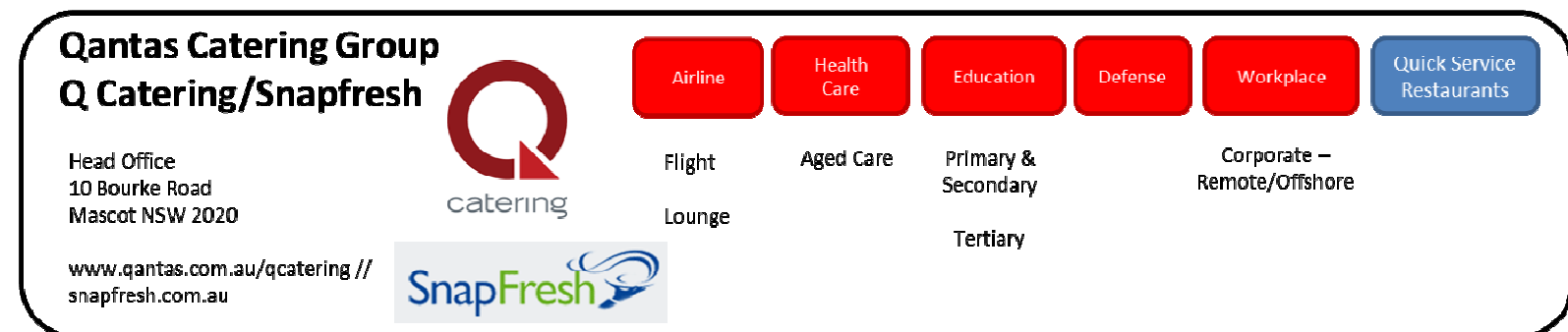
Menus are designed around the seasons, taking into account ingredient freshness and availability. Chefs are encouraged to be adventurous, incorporating local and international influences while focusing on quality and variety.

Wellbeing it's Vital is a dedicated healthy eating program encouraging our customers to make healthier choices.

Based on Australian Dietary Guidelines established for healthy adults, the program is supported by a dedicated range of promotional materials and incentives. Wellbeing food choices are indicated on menus highlighting meal options that are low in fat, low in salt, low in sugar and high in fibre.

Another program What's in Your Food? is aimed at giving students the knowledge and skills required to make informed food choices during their education years and beyond.

1. IBISworld Industry report – H4513 Catering Services in Australia (October 2013) and information extracted from Spotless Group and Alliance Catering websites - [spotless.com.au](http://spotless.com.au) & [alliancecatering.com.au](http://alliancecatering.com.au)



Qantas’s catering business operates in six cities across five states supplying its own airlines, other aircraft operators and clients in the defense, education, health and long-distance rail sectors.

The Qantas Catering Group is comprised of the Q Catering and Snap Fresh businesses, with the collective capacity to produce around 40 million meals a year with over 74,000 m<sup>2</sup> of production space across the nation. More than 100 qualified chefs work for the Qantas Catering Group.

Q Catering provides a variety of meal options from premium full service (across first, business and economy classes) to snack based offers and crew meals. Customers include Qantas International and Domestic, QantasLink, Singapore Airlines, Thai Airways, Cathay Pacific, Philippine Airlines and Vietnam Airlines. In total over 273,000 flights are serviced each year.

Many airlines have consulting chefs who develop rotating menus. Qantas has a long standing relationship with well known Australian chef Neil Perry.

Snap Fresh based in Queensland is a centralised production facility for frozen meals and supplies to Q catering and clients in defense, rail, education, remote sites and quick-service restaurants.

In July 2012, the company announced that parts of the catering business based in Sydney and Cairns had been sold to the Swiss airline catering company, Gate Gourmet. It also announced plans to close its Adelaide catering facility in 2013. Notwithstanding these exits, ongoing revenue from the Qantas Catering Group is estimated to exceed \$A 400 million<sup>1</sup>.

<sup>1</sup> IBISWorld Industry report – H4513 Catering Services in Australia (October 2013) and information extracted from Q Catering and Snapfresh websites - [qantas.com.au/qcatering](http://qantas.com.au/qcatering) & [snapfresh.com.au](http://snapfresh.com.au)

### Delaware North



Head Office  
630 Church St  
Richmond Victoria 3121 Australia  
[delawarenorth.com/international-australia-new-zealand-our-locations](http://delawarenorth.com/international-australia-new-zealand-our-locations)

#### Accommodation

El Questro  
Heron Island  
Kings Canyon  
Lizard Island  
Wilson Island

#### Sporting & Attractions

Etihad Stadium  
Melbourne & Olympic Parks  
Sovereign Hill  
Sydney Cricket Ground & Allianz Stadium  
Western Australian Cricket Association  
WIN Sports & Entertainment Centres

#### Quick Service Restaurant / Takeaway, Cafe

Adelaide Airport  
Alice Springs Airport  
Brisbane Airport  
Darwin International Airport  
Hobart Airport  
Launceston Airport  
Melbourne Airport

Perth Airport  
Sydney Airport  
Sydney Central Station  
Sydney Circular Quay  
The Terrace -  
Royal Botanic Gardens,  
Melbourne

Delaware North Companies is a global food service and hospitality company headquartered in Buffalo, New York in the United States. Globally, the company employs over 55,000 people and has over \$USD2.6 billion in annual revenues.

In 1988, Delaware North Companies began building a presence in the Australian market and now employs over 5,000 staff across 30 high volume venues.

Each year, Delaware North hospitality management services teams attend to:

- More than 650,000 guests at the Australian Open Grand Slam tennis tournament
- Passengers at every Australian state capital city airport
- More than 450,000 visitors each year at Sovereign Hill

Delaware North Companies Australia Parks & Resorts own and operate spectacular resort destinations in the Great Barrier Reef, the Red Centre of Australia, and in the Kimberley of Western Australia.

The Australian catering management teams deliver food and beverage solutions that reflect the demographics, tastes and requirements of each customer segment.

The Culinary Wellbeing program initiated in 2011 seeks to include lighter / healthier options in menus.

Information extracted from Delaware North website - [delawarenorth.com/international-australia-new-zealand](http://delawarenorth.com/international-australia-new-zealand)



The famous Golden Arches came to life in 1954 in the USA Ray Kroc met the McDonald brothers' who ran a hamburger outlet in California. He was impressed by their company - the menu was simple and cheap but the hamburgers were good; the fries were made in-store; and the shakes were thicker than usual.

Kroc made them an offer. "Let me open new McDonald's stores and I'll give you half of one per cent of the gross sales for the use of the name and the idea." The McDonald's brothers accepted and Ray opened his first store in Des Plaines, Illinois. He began to build the business by granting franchises to local entrepreneurs.

By 1960, he'd opened 200 restaurants throughout the USA. In 1961 he bought the McDonald brothers' share of the business for \$3 million and in 1965 the company became the McDonald's Corporation. Today, there are more than 34,000 restaurants in over 118 countries. Every day, more than 50 million meals are served worldwide.

In 1971 McDonalds opened its first restaurant in suburban Sydney. In 2014 there are over 900 McDonald's across Australia with around 90,000 people employed across the restaurants and management offices. Serving more than 1 million meals a day in Australia with revenue in 2012-13 exceeding \$A 2.3 billion<sup>1</sup>. On this basis it has a total revenue share of 19% of the QSR / Fast Food segment whilst operating just 4.5% of stores underlying the popularity of the offer.

Menu development is centrally controlled and tightly researched. A team of chefs, nutritionists and dieticians collaborate with operational and marketing personnel in trailing new products.

Mushrooms have been seen on a rotational basis on global menus with the Angus Swiss & Mushroom available in Australia for a 4 month period in 2011-12 and 2013-14.

1. Information extracted from McDonalds company website - [www.mcdonalds.com.au](http://www.mcdonalds.com.au)

Mushrooms in the Australian Food Service Market

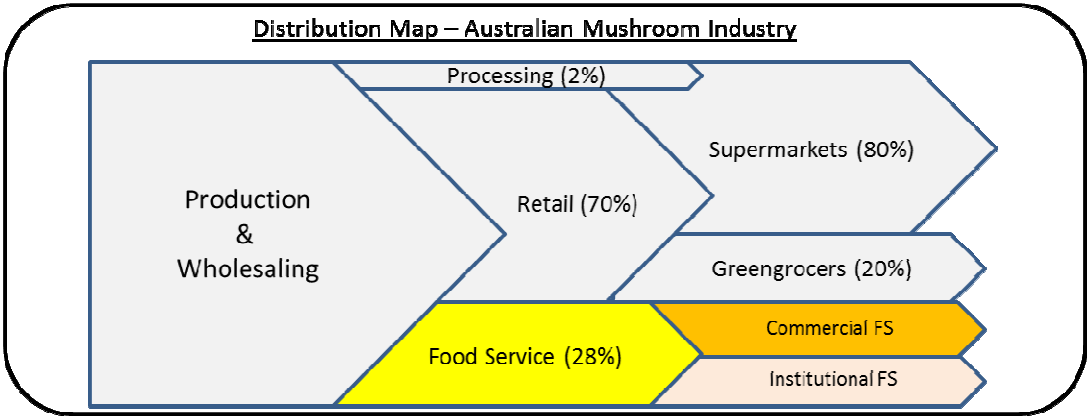
Overview

Mushrooms have a long history of usage within the Australian Food Service industry.

Generally food service channels have provided lower profitability contribution to growers however sales into the sector are an important contributor to overall industry volume uptake, in particular for product of lesser quality.

Over the past decade uptake into the fs component of the mushroom distribution channels mix has increased as mushrooms continue to grow in popularity in the community. Increasingly mushrooms are being recognised across all components of the food service industry as a desired and versatile inclusion in menu’s.

Mapping undertaken for the industry by FreshLogic in 2011<sup>1</sup> and updated in 2014<sup>2</sup> indicated that nearly 30% of industry volume is taken up by food service. This implies an annualised volume of ~19,000 tonnes of fresh agaricus mushrooms.



However, it should be noted that this quantification may understate the actual volume flowing to food service as there is strong evidence to suggest that a portion of smaller food service operators (typically from the commercial sector such as restaurants and take-away’s) often purchase their mushrooms (and other vegetables) from local supermarkets / greengrocers. The quantum of this type of purchasing behaviour is unknown but could represent an additional 10% or more.

1. p. 15 – Mealpulse : Mushroom Analysis - Mushroom Market Settings, FreshLogic, April 2011  
2. p. 7 – Australian Fresh Mushroom Market Profile, FreshLogic, November 2014 (MU 12005 – Analytics for Mushrooms)

Mushrooms appear on the menu in settings across most segments of the Australian Food Service market.

They are most frequently seen in breakfast and dinner meal occasions.

The frequency / breadth of mushrooms used varies widely by dining style, cuisine type, customer profile and venue audience.

In general mushrooms are used in the following ways:

- Primary ingredient – Field mushrooms with..., Mushroom Soup with...
- Feature ingredient – Mushroom risotto, Mushroom omelette, Mushroom pizza
- Accompaniment ingredient – ...with sautéed mushrooms, ...with mushroom sauce
- Inclusion ingredient – ...made with mushroom stock

*Mushroom Promotion in the Australian Food Service Market*

As part of its marketing and promotional program the Australian mushroom industry has undertaken ongoing activities to stimulate the use of mushrooms in food service.

Mushroom Chef

This food service focused website was developed in the mid 2000’s to provide a resource for industry participants to learn more about mushrooms and encourage mushroom usage in the sector. It was a key tool to support Mushroom Mania. Of recent years has been largely dormant but some content remains relevant.

Mushroom Mania

Over the past decade the major activity has been ‘Mushroom Mania’ a month long event targeted primarily at the commercial segment, particularly restaurants, cafes and clubs. The aim was to engage chefs and venues to celebrate the use of mushrooms and to include them on menus, and for consumers to seek out mushroom dishes.

Mania was a major promotional event for the industry which was supported by radio advertising, online referencing of participating venues well as strong on the ground support by the industry State Promotions Co-Ordinator’s (SPC’s) which included



mushroom farm walks for chefs and media.

At its height nearly 2,000 venues participated.

In 2011 venue participation was stagnating and the resourcing requirements of the program was becoming time and cost intensive. Technological enhancements such as a dedicated app for consumers to find venues and provide feedback was trailed in this year but the ROI continued to wane.

From 2012 the approach to Mushroom Mania was modified with a greater emphasis on social media and promotion via the (then) newly launched powerofmushrooms.com.au website.

From 2013, Mushroom Mania was promoted through channels including the Mushroom Lovers Club newsletter, Facebook, the powerofmushrooms website and a network of Food Bloggers which maintained the momentum of the event.



Images from powerofmushrooms.com.au // facebook.com/mushroommania // missfoodie.com.au/mushroom-mania-2013/ // thefoodpornographer.com/2013/07/mushroom-mania-2013-v-burger-bar-east-victoria-park

TAFE Program

Through the State Promotional Co-Ordinators the mushroom industry continues to provide regular support to TAFE and other Chef training colleges. The TAFE program provides liaison with teachers and direct provision of information on mushroom handling, usage and health benefits to students as well as supporting special events such as Farm walks and Celebrity Chef appearances.

For example in 2013, TAFE's in each state hosted Mother Day functions for the Industry providing a showcase for students to demonstrate their cooking skills with mushrooms to winners of mushroom industry Mothers Day competitions.



Images from SPCS's – TAFE program / Mothers Day function at TAFE 2013

Mushrooms in the Australian Food Service Market - Commercial Segment – Full Service Restaurant sector

Full Service Restaurants		Food prep:	Specific – on site In-house / pre-prep	Nutrition Focus:	Low
Fine Dining	~8,300 total outlets <sup>1</sup>  Est. meals per year 211 million <sup>2</sup>	Decision Maker:	Owner, Chef, Corporate	Nutritional Guidelines: Regulated	No
Mid Tier		Sector volume:	High	Current Mushroom: Usage:	Low-Med
Everyday		Meals per day:	Low-Med		

The Full Service restaurant sector of the Australian food service market provides sit down meals for immediate consumption on premises.

They are usually they have a relatively broad menu and provide table service. Meals are predominately cooked from scratch, on-site.

These establishments offer diverse cuisine types which vary in their origins, ethnicity and styles of food served. From Chinese to tapas and degustation – the options are seemingly endless.

The sector is dominated by independent owner operators (representing 85% of all outlets), with some owners running multiple venues (directly or as investors) and a small number of chain operators such as La Porchetta (80 locations), Hogs Breath (69 locations) and Outback Steakhouse (7 restaurants).

The vast majority of food served is prepared on premise and cooked to order. Owner / Chef is the key decision maker in terms of menu selection, based on the 'theme' of the restaurant. Those in chain operations operate within corporate menu development with meal specification / ingredients being tightly specified and potentially sourced from nominated suppliers.

The fine dining sector (main typically \$45 - \$70 +) is increasingly being leveraged by the burgeoning numbers of 'celebrity' chefs to drive clientele to existing and new venues. Well respected cooking personalities such as Neil Perry (Rockpool, Spice Temple), Shannon Bennet (Vue du Monde), George Calombaris (Press Club), Pete Evans (Bar Nacional) and Curtis Stone (Maude). Investment in fit-out is often lavish – with multi-million spends now common.

Mushrooms are found on many menus – as featured items in entrée's and sometimes mains, as accompaniments and in sauces. This usage covers many cuisine styles and from the cheap and cheerful local restaurant to the ultimate in fine dining.

The mushroom Industry has focused on this segment with the Mushroom Mania promotion over the past decade and appears to have made steady progress.

1. IBISworld Industry reports – H4511A Restaurants in Australia (June 2013)
2. Estimation based on average 75 meals per day per outlet (340 days) per year

Mushrooms in the Australian Food Service Market - Commercial Segment – Fast Casual Dining / Quick Service Restaurant / Takeaway sector

<div>Fast Casual Dining / Quick Service Restaurant / Takeaway</div> <div>~19,500 total outlets <sup>1</sup></div> <div>Est. meals per year 1.75 billion <sup>2</sup></div> <div>Chain FCD/QSR/FF ~6,300 total outlets <sup>3</sup></div> <div>Independent FCD/QSR/FF ~13,000 outlets <sup>1</sup></div>		Food prep: Specific – on site / pre-prep In-house / Outsourced	Nutrition Focus: Low-Med
		Decision Maker: Corporate, operations, nutritionist Owner	Nutritional Guidelines: Regulated No
		Sector volume: Very High	Current Mushroom: Low-High
		Meals per day: Low – Very High	Usage:

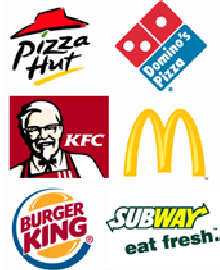
The Fast Casual Dining / Quick Service / Takeaway sector of the Australian food service market provides ‘fast food’ in a variety of styles – from fish and chips, through burgers, pizza, chicken and a variety of Asian food types through sandwiches and souvlaki.

Chain FCD/ QSR / Takeaway

This sub sector covers a number of large (100+) chains of FCD, QSR or takeaway food outlets which serve convenience meals. Aggregated store counts for chains exceed 6,000 across a number of food types representing about 30% of all outlets but hold a significant share of revenue – 47%<sup>4</sup>.

QSR outlets are typically franchised, with meal ingredients are centrally purchased and supplied according to tight specifications through sophisticated logistics management practices. These supply arrangements generally encompass either outsourced or in-house component processing and preparation, which will include pre-cooking, shredding and cutting, and pre-packaging of certain fast-moving meal items.

Overall consumer trend towards healthier eating has changed menu offerings towards fresher, salad-based products. In recent years breakfast has become a high focus meal occasion through this channel.



	Outlets <sup>3</sup>	Mushroom Use
Pizza		
Dominos	559	High
Pizza Hut	362	High
Eagle Boys	280	High
Pizza Capers	105	High
Burgers		
McDonalds	905	Infrequent rotation
Hungry Jacks	310	No
Grill'd	75	Yes
Chicken		
KFC	600	No
Red Rooster	351	No
Nandos	300	No
Aporto	140	No
Sandwiches		
Subway	1377	No
Sunto	98	Yes

*Burgers*

McDonalds has been the pioneer and market leader in the burger sector, with over 1 million people per day being served in Australia. Mushrooms have been used in recent years in the limited edition Swiss Cheese and Mushroom Angus burgers. Likewise Hungry Jacks offered the Swiss Mushroom Angus XT in 2012 and 2014 for around 3 months.

Fast growing chain Grill’d which focuses on more premium, healthier burger options provides a Grilled field mushroom option as a standard line in its Veggie Burger range.

*Pizza*

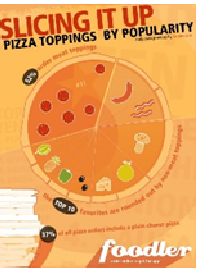
The pizza sub sector has a high number of chain based operators led by Dominos and Pizza Hut with a combined store count exceeding 1,300. Many other smaller regional chains also exist with 10+ outlets.

The chains co-exist with thousands of single location owner-operators across the Australian community.

Mushrooms are a staple, high volume topping item in the segment.  
Global research indicates that mushrooms are the 2nd most popular pizza topping.

Pizza Hut offers 6 (of 19) options that include mushrooms, whilst Dominos has 7 of 21 with mushroom inclusions.  
Likewise mushrooms are a regular on the menus of independent pizza houses.

The Pizza sub segment is most likely the highest regular user of mushrooms in the Australian food service industry.



- 1. Pepperoni
- 2. Mushrooms
- 3. Onions
- 4. Sausage
- 5. Bacon
- 6. Extra cheese
- 7. Black olives
- 8. Green peppers
- 9. Pineapple
- 10. Spinach

*Chicken*

KFC was one of the original chain based fast food operators in Australia and now has 600 outlets in Australia. Others such as Red Rooster and the fast casual dining format of Nandos have followed. These multi-store brands compete with thousands of charcoal chicken outlets Mushrooms are typically not a menu item in the chains however may sometimes be found in sold offers in selected independent chicken shops.

*Fish & Chips*

The perennial Aussie favourite still commands a loyal following. The thousands of outlets that dot the country are generally single outlet individual operations. Efforts to develop multi store branded offers have not been successful in the fish and chip meal category. Mushrooms are not typically available but may appear on burgers or in salad items.

*Sandwich*

The ‘traditional’ local sandwich bar which provides pre-made and ‘to order’ sandwiches and other selections of hot food ‘on the go’ in suburban and industrial settings continues to be a successful format. Mushrooms are often available as fillings in sandwiches.

Subway, based in the USA entered the Australian market in 1998 offering ‘healthy’ lunch options in high volume locations such as food courts in shopping centres. Over the past 25 years the franchise has seen explosive growth globally, with nearly 1,400 stores now in Australia.

No mushrooms are offered in Subways menu offer. This is potentially a very significant volume opportunity.

Sumo, a local competitor with 98 stores does offer mushrooms as an inclusion.

1. / 3. p. 25 IBISworld Industry reports – H4512 Fast Food Services in Australia (May 2013), 2. Estimation based on average 270 meals per day per outlet (340 days) per year, 4. Company sources and Top 50 Franchises, Inside Retail (September 2013)

Mushrooms in the Australian Food Service Market - Commercial Segment – Café & Coffee Shop sector

<div>Cafes &amp; Coffee Shop</div> <div><div>Chain Café/CS</div><div>~1,100 outlets<sup>1</sup></div><div>Independent Café/CS</div><div>~ 7,100 outlets</div></div>	Food prep:	Specific – on site / pre-prep In-house / Outsourced	Nutrition Focus:	Low
	Decision Maker:	Corporate, chef Owner, operations	Nutritional Guidelines:	No Regulated
	Sector volume:	High	Current Mushroom:	Med
	Meals per day:	Very Low – Med	Usage:	

The Café & Coffee Shop sector of the Australian food service market services patrons with hot beverages and light meals (typically breakfast and lunch).

A diverse sector dominated by independent owner-operators, the explosion of the ‘coffee culture’ in Australia has seen a proliferation of outlets across the community. There are approximately 8,500 café/coffee shops in Australia.

Chain Café/Coffee Shops

Chain operators have been able to achieve some success in the Australian market, (with the notable exception of global player Starbucks who has largely withdrawn from the market). Franchisors such as Gloria Jeans (460 stores) and Michel’s Patisserie (345 stores) focus on the provision of high volume hot beverages with a small complimentary snack menu dominated by sweet options. The Coffee Club with just over 200 stores provides a larger format and a fuller menu offer including hot meals. Mushrooms are featured in their breakfast menu.



THE OMELETTE BAR

Mushroom, Feta and Spinach Omelette

Three Egg Omelette

Lean Leg Ham, Cheese & Tomato Omelette

Gourmet Spanish Omelette

ALL DAY BREAKFAST

The Coffee Club Big Breakfast

Bacon, Eggs, Tomato & Toast

Eggs Benedict With Sautéed Spinach & Mushroom

Eggs Benedict With Ham

Eggs Benedict With Smoked Salmon

phamish

Breakfast Menu

Mushroom's Breakfast: chorizo, red onion & potato, pan-fried with smoked paprika, egg & rye bread 14.9

Egg Benedict: poached eggs & fresh avocado on Turkish rye, topped with tomato & hollandaise 14.9

Salmon Benedict: poached egg, spinach & smoked salmon, on a bread topped with hollandaise 17.9

Sweet Care Pudding: grilled & topped with tomato chorizo & poached egg 14.9

Extra high 1.0

Deluxe Omelette: feta, onion, spinach, artichoke, smoked salmon, topped with hollandaise & Turkish bread 19.9

Chef's Big Breakfast: fried eggs, sourdough, shrimp, bacon, potato, meat, mushrooms & grilled tomato 19.9

Green Free Breakfast: potato, meat topped with sautéed egg, spinach, tomato & bread mushrooms 15.9

Mushroom's Regal: scrambled eggs, fresh avocado, caramelised onion, halibut, pea 15.9

*Independent Café/Coffee Shops*

Café's and coffee specialists have proliferated in Australia over the past 20 years. Local operators provide a variety of casual dining options to patrons in particular for breakfast and lunch.

Meal service is typically cooked or sandwich style with a menu focused on favourite fare with relatively quick preparation time. Mushrooms are found on most menus, in particular as accompaniments/ inclusions part of egg based meals or as side orders at breakfast. Some lunch menus offer mushrooms in risotto or burger offers.

1. IBISWorld Industry reports – H4511B Café's and Coffee Shops in Australia (June 2013)

Mushrooms in the Australian Food Service Market - Commercial Segment – Accommodation sector

<div>Accommodation</div> <div><div>Hotels &amp; resorts</div><div>~900 hotels and resorts<sup>1</sup></div><div>Motels</div><div>~ 2,400 motels<sup>2</sup></div><div>Other</div></div>		Food prep:	Specific – on site / pre-prep In-house / Outsourced	Nutrition Focus:	Low
		Decision Maker:	Corporate, chef, operations, owner	Nutritional Guidelines: Regulated	No
		Sector volume:	Low – High	Current Mushroom Usage:	Low
		Meals per day:	Very Low – High		

The Accommodation sector of the Australian food service market provides meals to guests and visitors of hotels/resorts, motels and other accommodation types (such as B&B's in a variety of dining formats. Tourism makes up the largest portion of the market followed by business travel.

*Hotels*

The hotel & resort sector in Australia is dominated by global chains such as Starwood, Hilton and Sheraton. The largest player is Accor Asia Pacific Corporation who operates under a variety of brands including Sofitel, Pullman, Novotel, Mercure & Ibis Hotels with a combined total of 200 properties.

Analysis by IBISWorld indicates that ~20% of industry revenue is derived from dining, with an estimated annual value of \$1.4 billion<sup>1</sup>.

Mushrooms are noted in menus at many in-room, restaurants and café menus operated within the sector, typically in breakfast and dinner occasions.

Motels

The motel sector is typically run by independent operators and services mainly domestic tourist and business travellers in small format ‘drive-up’ accommodation. Most of these businesses provide in-room or stand-alone dining options at a relatively basic level. Operators derive ~19% of their revenue from dining – accounting for a total annual spend of over \$550,000<sup>2</sup>.

The use of mushrooms in the sector is difficult to determine however it is expected that mushrooms would be included in breakfast menus of many motels.

1. IBISworld Industry reports – H4401 Hotels and Resorts in Australia (November 2013), 2. IBISworld Industry reports – H4402 Motels in Australia (September 2013)

Mushrooms in the Australian Food Service Market - Commercial Segment – Pubs & Clubs sector

Pubs & Clubs		Food prep:	Specific – on site / pre-prep In-house / Outsourced	Nutrition Focus:	Low
Pubs / Bars / Nightclubs ~7,000 pubs/bars <sup>1</sup>		Decision Maker:	Corporate, Manager, chef owner, operations, committees	Nutritional Guidelines: Regulated	No
Social / private Clubs ~7000 social clubs <sup>2</sup>		Sector volume:	Low – High	Current Mushroom: Usage:	Low-Med
Sport clubs 000's of sporting clubs		Meals per day:	Very Low – High		

The Pubs & Clubs sector of the Australian food service market provides meals to patrons in a variety of social settings. ‘Going out’ venues are a way of life, with the main sources of revenue being alcohol and increasingly gaming. Food provision is offered in varying degrees. In sit down eating environment mushrooms are often available in various menu items.

Pubs / Bars

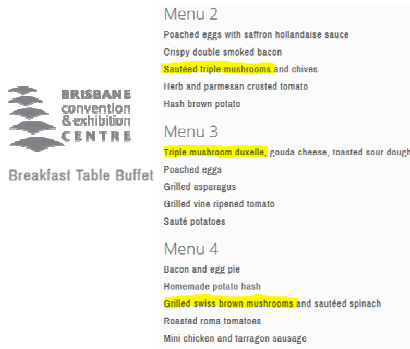
Pubs are the largest sub sector with over 4,000 pubs operating in Australia. Around 10% of total industry revenue is derived from dining – an annual spend of \$1.6 billion dollars.

The industry ownership structure is split between corporate operators who run multiple venues – such as ALH Group with a portfolio of over 230 pubs and independent operators who run single outlets. The bar and nightclub industry is predominantly single operator.

MENU		ELSTERNWICK HOTEL
FROM THE PANS		
seafood paella	chicken and assorted seafood pan fried with spicy chorizo sausage and green peas cooked in a saffron stock	26.5
creamy garlic or chilli prawns	served with steamed rice and salad	25
mushroom risotto	seasoned mushrooms with garlic and basil, tossed through alborio rice and finished with shaved parmesan	18.6
add chicken		22



Every Australian capital has atleast one major conference / exhibition centre. These large scale facilities can accommodate events with more than 5,000 patrons in seated configurations and For example the Brisbane Exhibition and Convention Centre can host >8,000 people per event and in 2012 ran 1,300 events. Numerous smaller and regional facilities also exist. Major hotels and other venues also host conferences and exhibitions. According to IBISWorld analysis, food and beverages are the largest contributors to revenue for the sector, with 43% of turnover, accounting for \$5.2 billion<sup>3</sup>. Most venues have in-house caterers or long-term contractor arrangements depending on the scale.



For conferences menu options are chosen from a range of options by the organiser. Where sit-down meals are provided, mushrooms are featured on menus.

In consumer exhibition environments the menu items tend to be more snack based and are unlikely to include mushrooms.

1. Estimation based on various market sources, 2. / 3. IBISworld Industry reports – X0018 Exhibition and Conference Centres in Australia (January 2014)

Mushrooms in the Australian Food Service Market - Commercial Segment – Sporting & Attractions sector

<div>Sporting &amp; Attractions</div> <div>1</div> <div>25 major, 15,000 seats or more</div> <div>000's of small venues</div> <div>2</div> <div>000's</div> <div>000's</div>	Food prep:	Specific – on site / pre-prep	Nutrition Focus:	Low-Med
	Decision Maker:	In-house / Outsourced	Nutritional Guidelines:	No
	Sector volume:	Corporate, chef operations, manager, committees	Regulated	
	Meals per day:	Low - Very High	Current Mushroom Usage:	Very Low - Med
		Low – Very High		

The Sporting & Attractions sector of the Australian food service market provides meals and snacks to patrons during match day and other events such as concerts held that these events.

Sporting

Each major capital has large stadiums that host a variety of sporting events. Iconic venues such as the MCG, Homebush and the Gabba regularly have AFL, NRL, Cricket, A-League soccer and other sports. These large facilities provide a range of options from super-boxes, to sit-down dining and snack/café options.

Catering is often outsourced to contract caterers such as Compass, Delaware North and Sodexo. Mushrooms are in evidence on many premium dining options.

Smaller venues and suburban venues that dot the Australian community often provide canteen facilities, typically providing snack and basic food. Given the nature of the meals served in these venues mushroom usage is assessed to be very low.

*Tourism and Cultural venues*

From fun parks to museums, thousands of tourism attraction and cultural venues dot the nation. With varying levels of scale and sophistication many of these facilities provide meals from snack to sit-down dining. Many smaller operations will have in-house food prep facilities and staff, whilst larger facilities often sub-let or use contract catering to provide meal options.

Mushrooms are seen on menus – particularly those with hot meal options for lunch and dinner.

- 1. Estimation based on various sources, 2. Estimation based on various sources



THE RESTAURANT		ART GALLERY NSW
Lunch 7 days 12pm – 3pm		
<b>on arrival</b>		
house roast nuts & marinated olives		0
sourdough bread, whipped butter, salts		4
rock oyster, cucumbers, reserve sherry vinegar		4
<b>entrée</b>		
pear, witel, blue cheese, walnuts, white balsamic		17
thai style chilled watermelon soup, crab, ginger, lime		16
seared scallops, pea purée, tomato confit, garlic cream		18
stuffed squid, mussels, feta, lemon, capsaicin		16
masterstock braised pork salad, mint, basil, coriander		16
<b>main</b>		
<b>roast mushrooms</b> , goats curd, quinoa, chestnut cream,		28
<b>garnish</b>		
emmental key lugs, equal ink pasta, chili, garlic & white wine		39
steamed black kingfish, bok choy, black fungi, asar broth		33
seared king salmon, baby beetroot, fennel, salmon pearls		31

Mushrooms in the Australian Food Service Market - Commercial Segment – Event catering sector

<div>Event Catering</div> <ul style="list-style-type: none"> <li>Wedding</li> <li>Special event</li> <li>Public events &amp; Festivals</li> </ul>	~125,000 marriages <sup>1</sup> Average 96 guests <sup>2</sup>	Food prep:	Specific – on site / pre-prep In-house	Nutrition Focus:	Low
	Est. meals per year 96 million	Decision Maker:	Organiser, chef/cook/caterer owner	Nutritional Guidelines: Regulated	No
	000's of events <sup>3</sup>	Sector volume:	Medium - High	Current Mushroom: Usage:	Low-High
	000's of events	Meals per day:	Low – High		

The Event catering sector of the Australian food service market provides meals for pre-arranged individual and corporate functions and events, as well as public festivals and community events.

#### Weddings

Weddings in Australia are big business, with the average wedding now costing nearly \$40,000. Food and beverage makes up around ¼ of this expenditure<sup>2</sup>.

The menu selection is largely driven by the menu options provider by the caterer or venue, along with the wishes of the bride/groom.

Mushrooms feature widely as a menu option as a feature dish or as an accompaniment.

#### Special event

Gala dinners, fundraisers, reunions and corporate functions are held in small and large venues throughout the country on a regular basis. Depending on the scale this could mean dozens or thousands of meals served. Mass venues such as Crown Casino have in-house catering staff who offer menu creation services through to meal creation and service.

Mushrooms are often available as a main meal feature or as an inclusion/accompaniment.

#### Festivals

The provision of catering is typically by independent operators from a variety of modes such as stalls or food vans.



### MUSHROOM BURGERS

- The MEXICAN** (A little spicy).  
Mushroom on a Ciabatta bun with Chipotle mayo, Rocket, Balsamic glaze and Parmesan. \$10
- The GREEK**  
Mushroom on a Ciabatta bun with a mild Dill mayo, Rocket and Parmesan. \$10
- The VEGAN**  
Mushroom on a Ciabatta bun with a Cajun spice rub and Rocket. \$10



Dedicated mushroom focused sellers operate in small numbers, however mushrooms are not widely featured due to the nature of the food being served.

1. ABS release - 3310.0 - Marriages and Divorces, Australia, 2012, November 2013, 2. Cost of love at an all-time high, news.com.au, November 2012 - www.news.com.au/opinion/cost-of-love-at-an-all-time-high/story-fnfhswl8-1226518763095. 3. Estimation based on various sources

Mushrooms in the Australian Food Service Market - Commercial Segment – Summary

Segment	Sector	Scale		Sector Structure	Meals per day per outlet	Nutrition focus	Nutrition Guidelines Regulated	Current Mushroom Usage
		Outlets	Estimated Meals					
Commercial	Full Service Restaurants	8,300	211 million	Owner Operator, some High Q	Low - Medium	Low	No	Low - Med
	Fast Casual Dining / Quick Service Restaurants	19,500	1.75 billion					
	Chain FCD/ QSR / Takeaway	6,300		Corporate, prevalence of High Q	Very High	Low-Med	No	Varies - 0 - V. High
	Independent QSR /	13,000		Owner operator	Low - High	Low-Med	No	Varies - 0 - V.

Takeaway						High	
Cafes & Coffee Shops	8,500	93 million					
Chain Café / Coffee Shop	1,100		Corporate, some High Q	Low - Medium	Low	No	Low
Independent Cafe / Coffee Shop	7,400		Owner operator	Very Low - Medium	Low-Med	No	Low - Med
Accommodation	3,300	120 million					
Hotels & Resorts	900		Owner Op, Corporate, some High / Mod Q	Low - High	Low	No	Low - Med
Motels	2,400		Owner operator	0 - Low	Low	No	Low
Pubs & Clubs	~10,000	290 million					
Pubs	4,000		Owner Op, Corporate, some High Q	Low - High	Low	No	Low - Med
Social / Private Clubs	2,000		Single operations, management	Low - High	Low	No	Low - Med
Sporting Clubs	000's		Single operations, committee, Mgr	Very Low - Med	Low	No	0 - Low
Function & Conference	2,000	190 million	Owner Op, Corporate, prevalence of mod Q	Med - High	Low - Med	No	Low - Med
Sporting & Attractions	4,500	270 million					
Sport Venues (>15,000 seats)	35		Corporate, prevalence of High Q	Very High	Very Low-Med	No	Low - Med
Sports venues (smaller)	000's		Single operations, committee, mgr	Very Low - Med	Low	No	0 - Very Low
Tourism Venues	000's		Single operations, management	Very Low - High	Very Low - Low	No	0 - Low
Cultural venues	000's		Single operations,	Very Low -	Very Low	No	0 - Low

	management		High	- Low			
Event Catering							
Weddings	125,000	96 million	Organiser, caterer	Very Low - Med	Low	No	Low - Med
Special events	000's		Organiser, caterer / venue	Very Low - High	Low	No	Low
Public events & Festivals	000's		Organiser	Low - Very High	Low	No	0 - Low

Mushrooms in the Australian Food Service Market - Institutional Segment – Health Care sector

<div>Health Care</div> <div><div>Hospitals</div><div>1,340 hospitals<sup>1</sup> 85,775 beds ~5.1 million non same-day admissions</div></div> <div><div>Aged Care</div><div>~2,785 facilities<sup>2</sup> ~164,000 permanent residents</div></div>		Food prep:	Mass – on & off-site In-house / Outsourced	Nutrition Focus:	High
		Decision makers:	Government Depts, Administrators Various – chef, nutrition, operations	Nutritional Guidelines:	Yes Regulated
		Sector volume:	Very High	Current Mushroom:	Low-Med
		Meals per day:	Med- High	Usage:	

The Health Care sector of the Australian food service market provides meals to hospital in-patients and residents of aged care facilities.

Hospitals

Meal provision in hospitals is typically mass production catering based on a rotating menu schedule. Major modes include centralised production and heat and serve on site or scratch preparation in on-site kitchens. The sector is high volume with an implied annual volume of 46 million meals (based on 1.5 meals provided per bed per year). Provision is either in-house staff or outsourced to catering providers. Meal cost management is extremely important.

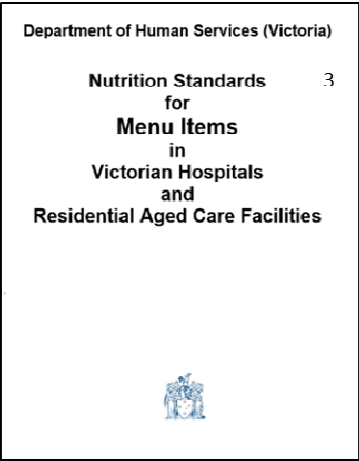
Health and nutrition of meals is mandated by State government policy. Mushrooms are used widely at varying levels in the sector – with mushrooms soups and other meals often on the menu.

Aged Care

With an ageing population assisted and supported living in retirement villages, nursing home and hostels is a growing sector in the Australian community.

There is a diverse mix of operational modes from independently owned single facilities to multi-facility managers such as BUPA Aged Care (60 properties), Regis (45 properties) and Primelife.

Most facilities provide on-site catering with kitchens and meal preparation undertaken in-house. The kitchen and menu management is a mix of contracted caterers or staff. Nutrition and portion management is important. The use of mushrooms is expected to be at low levels.



1. Australian hospital statistics 2010-11. Health services series no. 43. Cat. no. HSE 117, AIHW, May 2012, 2. Residential aged care in Australia 2010-11: a statistical overview, AIHW, 2012, 3. Nutrition Standards for Menu Items in Victorian Hospitals and Residential Aged Care Facilities, Department of Human Services (Victoria), April 2009

Mushrooms in the Australian Food Service Market - Institutional Segment – Educational sector

<div>Education</div> <div>Primary &amp; Secondary ~3.6 million students<sup>1</sup></div> <div>Tertiary ~1.2 million F/T &amp; P/T students<sup>2</sup></div>	Food prep:	Specific – on -site In / Outsourced	Nutrition Focus:	High
	Decision makers:	Fed / state Govt Department, Various – Principal/Dean, canteen manager, nutritionist, school committee	Nutritional Guidelines: Regulated	Yes
	Sector volume:	Very High	Current Mushroom: Usage:	Low
	Meals per day:	Low - Med		

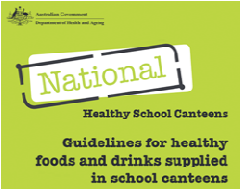
The Educational sector of the Australian of the food service market is diverse – from primary/secondary school canteens to TAFE and university cafes and student housing and staff canteens.

At a primary and secondary level school run canteens provide the primary on-site food service to students. Across Australia this amounts to around 9,000<sup>3</sup> public and private schools. The canteen menu and operations are typically overseen by a manager appointed by the school or a committee of parents. Volunteers are often used for staffing or additional resources.

National standards have been developed and provide the framework for menu healthy development within the school system. The current guidelines<sup>4</sup> include direction on inclusion of vegetables but do not specifically reference mushrooms. Mushrooms are included in one pizza recipe<sup>5</sup>.

In the tertiary sector (University / TAFE) institutions provide a variety of meal options from snack outlets to cafes and function / dining. These outlets are typically outsourced to independent or contract operators.

Mushrooms are regular menu inclusions, typically in breakfast or as an accompaniment.



4

Pizza Dough				
	Ingredients	10	25	50
	Flour			
	Flour			
	Flour			
	Flour			
	Ingredients	10	25	50
	Flour			
	Flour			
	Flour			
	Flour			
	Ingredients	10	25	50
	Flour			
	Flour			
	Flour			
	Flour			
	Ingredients	10	25	50
	Flour			
	Flour			
	Flour			
	Flour			

1. ABS release - 4221.0 - Schools, Australian Bureau of Statistics, February 2013, 2. / 3. ABS release - 1301.0 - Year Book Australia, 2012, Australian Bureau of Statistics, May 2012, 4. / 5. p. 47 Guidelines for healthy foods and drinks supplied in school canteens, Commonwealth of Australia, 2010

Mushrooms in the Australian Food Service Market - Institutional Segment – Defence sector

Defence

1

Barracks

Deployment

Service	Permanent	Active Reserve	Total
Navy	14,054	2,001	16,055
Army	29,697	17,251	46,948
Air Force	14,243	2,820	17,063
Total	57,994	22,072	80,066

Food prep:

Mass – on / off site  
Outsourced

Decision makers:

Fed Govt Department, Contractor  
Various – chefs, nutritionist, operations

Sector volume:

High

Meals per day:

High

Nutrition Focus:

High

Nutritional Guidelines: Regulated

Yes

Current Mushroom: Usage:

Low-Med

Food Service operations in the Defence sector provides meals to the various branches of the Australian Defence Forces (incorporating Army, Air force and Navy) as well as the Joint command.

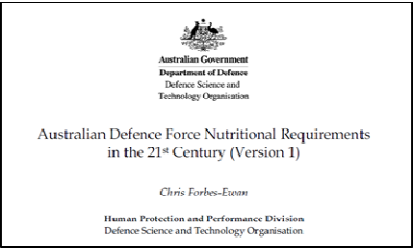
In 2013, there were over 60 active bases across the three forces.

Catering services are outsourced to Serco (Sodexo) Defence Services who provide approximately 60 million meals each year including breakfast, lunch and dinner within the mess and meals away from the Mess plus duty meals, inflight meals, supplements and function meals.

In addition they manage bars and wardrooms and coordinate over 1,000 presentations and official military VIP functions annually.

Dietary and nutritional requirements are strictly controlled within the ADF to ensure personnel health is maintained. Standards are detailed within ADF guidelines and are reviewed annually. Menu variety is constantly rotated. Most meal preparation at bases is undertaken on-site. Menu selection is taken in conjunction between ADF operational staff and Serco.

Mushrooms are used in meals within the sector. Menus available at the [aafcans.com.au](http://aafcans.com.au) website illustrates that mushrooms are used in breakfast, pizzas, pies and as an ingredient in selected main meal dishes.



Good food and lots of it  
There's a saying that an Army marches on its stomach. In other words, if they are fed well, they'll perform well. That is why the food you'll enjoy is varied, nutritious and tasty. You honestly couldn't eat better than this if you cooked at home or dined out at restaurants every night. In fact you'll probably never eat this well consistently at any other time in your life!

A Typical Menu		
BREAKFAST	<ul style="list-style-type: none"><li>Cereals, fresh milk, yoghurt.</li><li>Eggs to order.</li><li>Grilled ham slices.</li><li>Spaghetti in tomato sauce.</li><li><b>Sauté mushrooms.</b></li></ul>	<ul style="list-style-type: none"><li>Grilled tomatoes.</li><li>Tea, Coffee, Milo.</li><li>Selection of fresh fruit.</li><li>Toast, croissants or crumpets.</li></ul>
	<ul style="list-style-type: none"><li>Apple and rosemary stuffed lamb racks served with lemongrass and spinach sauce.</li><li>Individual beef or vegetable pies served with spicy tomato purée.</li></ul>	<ul style="list-style-type: none"><li>Croquette potatoes.</li><li>Vegetables in season.</li><li>Assorted garden salads with cold dips.</li><li>Fruit, fruit platter.</li></ul>
LUNCH	<ul style="list-style-type: none"><li>Veal Gordon Bleu served with medley mustard and cream sauce.</li><li>Pedernera Marlene with a chilli, tomato and basil sauce.</li><li>Cannellini Picantina.</li></ul>	<ul style="list-style-type: none"><li>Savoury cubed potatoes.</li><li>Vegetables in season and salads.</li><li>Selection of prepared sweets.</li></ul>
DINNER		

1. / 2. / 5. Australian Defence Force – [defence.gov.au](http://defence.gov.au), 3. Serco Sodexo Defence Services - [ssds.com.au/our-services/hospitality-catering](http://ssds.com.au/our-services/hospitality-catering) 6. Army & Airforce Canteen Service – [aafcans.com.au](http://aafcans.com.au), 4. Australian

Mushrooms in the Australian Food Service Market - Institutional Segment – Correctional sector

<div><div>Correctional</div><div><div>Prisons</div><div>125 sites<sup>1</sup></div><div>~30,000 prisoners<sup>2</sup></div><div>Estimated 65,000 meals per day<sup>3</sup></div></div></div>	Food prep:	Mass -on-site / pre-prep In / Outsourced	Nutrition Focus:	High
	Decision makers:	State Govt Dept, Policy makers Various – Superintendent, nutritionist, operations	Nutritional Guidelines: Regulated	Yes
	Sector volume:	High	Current Mushroom: Usage:	?
	Meals per day:	Low - Med		

The Correctional sector of the Australian food service industry focuses on meeting the required meal provision and nutrition standards of those in Australian prisons.

There is a strong emphasis on ensuring nutritional and dietary requirements are met with each state providing policies to ensure conformity to standards. A rotating menu is usually offered to provide variety within the constraints of tight budget.

<div><div><div><div></div><div>Government of Western Australia Department of Corrective Services</div></div><div><div>Policy Directive 15</div><div>Catering Services and Dietary and Nutritional Requirements</div></div><div>Relevant Instruments : <a href="#">Food Act 2008</a> <a href="#">Prisons Act 1981</a> <a href="#">Standard Guidelines for Corrections in Australia, 2004</a></div><div><div>Table of contents</div><div><div>1. Introduction.....1</div><div>2. Purpose.....1</div><div>3. Scope.....1</div><div>4. Definitions.....1</div><div>5. Policy.....2</div><div>6. Food safety, kitchen registration and menu assessment.....2</div><div>7. Related key policies and instruments.....3</div><div>8. Policy review.....3</div><div>9. Approval.....3</div><div>10. Policy sponsor.....3</div><div>11. Contact person.....3</div><div>12. Amendment history.....3</div></div></div></div></div>	
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Implied annualised meal production volume is in excess of 30 million.

Typically most sites will have an in-house kitchen to prepare scratch meals or in other circumstances pre-prepared meals are delivered and re-heated. Many facilities use prison labour to assist kitchen staff in preparation and serving.

There is no data available to assess the current usage of mushrooms within the correctional sector, however mushrooms could certainly fulfil a role as a nutritional component of the meal offer.

Gaining influence with policy makers and on-site kitchen managers will be required to drive mushroom inclusion.

1. p. 11 - FOODmap: An analysis of the Australian food supply chain, Department of Agriculture, Fisheries and Forestry, Canberra, July 2012, 2. ABS release - 4517.0 - Prisoners in Australia, 2013, Australian Bureau of Statistics, May 2012, 3. Estimation based on extrapolation of prisoner numbers plus prison staff, 4. Policy Directive 15 - Catering Services and Dietary and Nutritional Requirements, Government of

Mushrooms in the Australian Food Service Market - Institutional Segment – Workplace sector

Workplace

Corporate – Local

Corporate – Remote/Offshore

Government

1,350 workplaces <sup>1</sup>

Est. 500 sites  
Est. 100,000 staff

Est. 200 sites

Nutrition Focus:

Nutritional Guidelines: Regulated

Current Mushroom: Usage:

Low

No

Low

Corporate – Local & Government

The workplace sector of the Australian food service market provides on-site meal service in business settings.


These range from company canteens and café’s for employees, through to corporate and government catering and dining.

Operations are either in-house scratch facilities or leverage outsourced catering providers who operate from on-site facilities. Menus are diverse and reflective of the audience. Mushrooms are regulars on menus with volume dictated by the scale of the facility.

Corporate – Remote & Offshore

The provision of meals at geographically isolated mining operations has grown over the past decade in line with the boom in investment in mineral extraction, particular in Western Australia. Major iron ore projects in the Pilbara has seen mining camps and staff numbers proliferate.

	
<b>Entrée</b>	
Chilled pea, mint and sour cream soup, smoked chicken julienne	
12.00	
Buffalo Mozzarella, rocket puree, tomato confit, black olives and capers	
18.00 / 28.00	
Upside down mushroom and leek tart, endive and shaved parmesan	
18.00 / 28.00	
Pan fried scallops and new potatoes, grilled chorizo, dill and tomato oil	
18.00 / 28.00	
Citrus cured salmon, tomato and avocado, Gazpacho dressing	
18.00 / 28.00	
Roast duck breast, honey and pecan crust, vanilla risotto	
18.00 / 28.00	
<b>Main Course</b>	
Pan roasted fresh fish fillet of the day, sautéed potatoes and pea fricassée, verjuice butter sauce	
35.00	
Crisp pan fried zaatar braised lamb crepe, potato, hummus puree and jus	
33.00	
Roasted Mount Barker chicken and pancetta roulé, cauliflower puree, tortellini, jus	
31.00	
Chargrilled Butterfield beef fillet, sautéed potatoes, blue cheese portobello, jus	
35.00	

 SAMPLE MINING ROTATIONAL MENU							
Breakfast							
	MON	TUE	WED	THUR	FRI	SAT	SUN
	Hot /Cold Buffet Plus	Hot /Cold Buffet Plus	Hot /Cold Buffet Plus	Hot /Cold Buffet Plus	Hot /Cold Buffet Plus	Hot /Cold Buffet Plus	Hot /Cold Buffet Plus
Week 1	Croissants, Savoury & Sweet	Sauté Mushrooms & Bacon	Plain Omelette	Eggs Mornay	Hammon & Eggs	Eggs Florentine	Minute Steaks
Week 2	Danish Pastries	Sausages in Onion gravy	Special Fried Rice	Poached Eggs	Breakfast Burritos	Lamb's Fry & Bacon	Open Choice Omelette
Week 3	Waffles	Savoury Mince	Crumbed Sausages	Savoury Hash Browns	Refried Beans	Black Pudding	Mixed Grill

These remote sites provide all meals for staff when on-site. Specialist contract caterers (such as Sodexo) / meal providers typically provide pre-prepared meals, ready to heat and serve on-site. Menus are typically on a rotational basis with variety a key factor. Meal budgets are closely monitored. Some larger facilities have on-site scratch preparation facilities.

Mushrooms are seen on menu’s typically in breakfast dishes or as accompaniments to main meals.

1. p. 90 - *FOODmap: An analysis of the Australian food supply chain*, Department of Agriculture, Fisheries and Forestry, Canberra, July 2012, 2. Estimation based on variety of public sources

Mushrooms in the Australian Food Service Market - Institutional Segment – Airline sector

<div><div>Airline</div><div><div>Flight</div><div>&gt; 7m passengers per month ~ 5m meals per month <sup>1</sup></div></div><div><div>Lounge</div><div>~50 Est. 000's of meals per day</div></div></div>		Food prep:	Mass – off site Outsourced	Nutrition Focus:	Low-Med
		Decision makers:	Corporate Various – chefs, operations	Nutritional Guidelines:	No Regulated
		Sector volume:	Very High	Current Mushroom Usage:	Low-Med
		Meals per day:	Very High		

*Flight*

The Airline sector of the Australian food service market is serviced by a relatively small number of operations who provide meal services to domestic and international carriers.

Three major companies service the market - Alpha Flight Services (Plenty Food), Q Catering (Qantas) and Gate Gourmet (Gate Group) provide upwards of 900,000 meals per week – ranging from snacks to full premium meals catering for various classes of travel and diverse menus required by various airlines. This includes special diet, Halal, Kosher and Kids meal options.

Typically each provider will have multiple food preparation sites based around capital city airports that provide full service production of meals ready to heat and serve on board. A sophisticated logistics and planning system is employed to ensure consistent supply.

Various airlines employ high profile chef’s who direct menu preparation. These are rotated on a regular basis to provide diversity.

Mushrooms are specified in meals of many airlines. This includes as a breakfast accompaniment and also main meals.

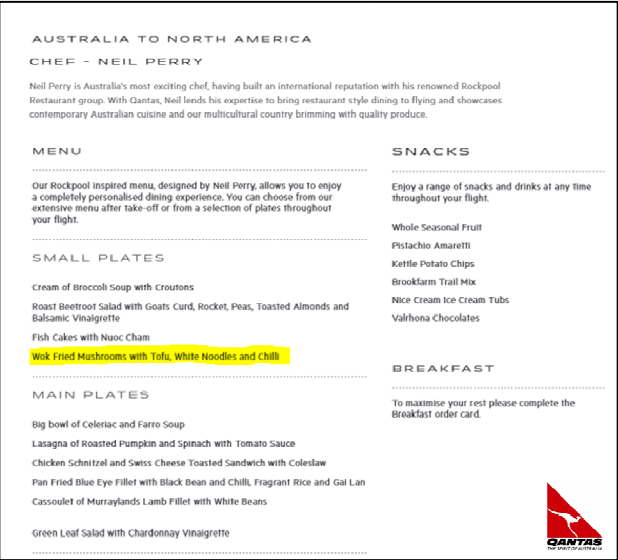
Influencing these chef's is the key to increasing the inclusion of mushrooms.

Lounges

Airport lounges provide meals to guests who are typically members of airline frequent flyer programs. In Australia the Qantas Club provides a network of facilities at all capital and some regional airports. Virgin offers similar access in capital cities. Many international carriers offer dedicated or shared lounges in capital cities.

Typically a variety of self-serve meals are offered in a buffet setting – marinated mushrooms are often available in the taps menu. In Business and First Class lounges mushrooms are offered in meals and also breakfast dishes.

1. [www.bitre.gov.au/statistics/aviation](http://www.bitre.gov.au/statistics/aviation), Australian Government, Department of Infrastructure & Regional Development, Infrastructure, Transport & Regional Economics, 2013, 2. Estimation based on variety of public sources



Mushrooms in the Australian Food Service Market - Institutional Segment – Pre-Prepared Ready to Eat (RTE) sector

<div><div>Pre Prep Ready to Eat</div><div><div>Household – Home Delivery</div><div>000's of businesses providing ~100,000 participating households</div></div><div><div>Charitable</div><div>000's of organisations providing &gt; 17 million meals</div></div></div>	Food prep:	Mass – on/off site Dedicated facilities	Nutrition Focus:	Med - High
	Decision makers:	Corporate, Charity Various – chefs, nutrition, operations	Nutritional Guidelines: Regulated	No
	Sector volume:	Moderate	Current Mushroom Usage:	Low-Med
	Meals per day:	Moderate- High		

Household

Over the past decade businesses such as Lite n’ Easy, Choice Fresh, Dietlicious & Vege’s to Go have carved out a solid customer base providing pre-prepared meals delivered to households. Leveraging a platform of nutrition, portion control (for weight loss) and convenience these businesses have attracted upwards of 100,000 participating households.

Whilst many service local catchments Lite ‘n Easy now cover all states except Tasmania or the Northern Territory and is the market leader with an aggressive marketing campaign growing its footprint and brand awareness.


Mushrooms are currently used in 11 (of 70) main meals in the 2013/14 summer menu of Lite n’ Easy. The mushroom industry has provided support to LnE nutritionists in 2012/13 and continues to provide information on mushroom health to drive further, regular inclusion.

Charitable

The provision of meals in the charity sector includes church, community and welfare organisations at various venues, as well as ‘on the road’. Meals on Wheels is the largest provider nationally. Each year 14.8 million meals are delivered by more than 78,700 volunteers to about 53,000 recipients Australia wide in cities, regional and rural areas<sup>2</sup>.

The use of mushrooms on the MoW menu is unknown.

1. Lite n’ Easy website – www.liteneasy.com.au, 2. www.mealsonwheels.org.au/About-Us

	<b>1</b>
<b>163 Braised Asian Lamb Shanks</b>	<b>167 Beef with Red Wine &amp; Mushroom</b>
<b>Ingredients:</b> Lamb (18%), Rice, Mushroom, Zucchini, Water, Chicken Stock, Soybeans, Sweet Potato, Shallots, Oyster Sauce (Contains Flavour Enhancer (621), Colour (1500)), Onion, Carrot, Celery, Sweet Soy Sauce, Sesame Seeds, Corn Flour, Chinese Cooking Wine, Garlic, Salt, Ginger, Spices, Sugar, Sunflower Oil, Pepper	<b>Ingredients:</b> Potato, Beef (17%), Carrot, Mushroom (11%), Onion, Beans, Beef Stock, Bacon (Contains Lite Salt (Potassium Chloride), Preservative (250)), Red Wine (3%), Modified Starch (1422), Evaporated Milk, Sugar, Egg, Butter, Sunflower Oil, Garlic, Tomato Paste, Salt, Herbs, Pepper
<b>Serving Size:</b> 420g	<b>Serving Size:</b> 520g

Mushrooms in the Australian Food Service Market - Institutional Segment – Summary

Segment	Sector	Scale		Sector Structure	Meals per day per outlet	Nutrition focus	Nutrition Guidelines regulated	Current Mushroom Usage
		Outlets	Meals					
Institutional	Health Care							
	Hospitals	1,340	46 million	Govt dep, Corporate, prevalence of Med / High Q	Med - High	High	Yes	Low - Med
	Aged Care	2,765		Govt, Own Op, Corporate, prevalence of Med Q	Very Low - Med	High	Yes	Low
	Education							
	Education - Primary & Secondary	9,000		Govt dept, Corporate, committee, canteen mgr	Very Low - Med	High	Yes	0 - Low
	Education - Tertiary	1,230		Govt dept, Corproate, management	Low - High	High	Yes	Low - Med
	Defence	60	60 million	Govt dept, contractor, operations, one High Q	High	High	Yes	Low - Med
	Correctional	125	30 million	Govt dept, operations, some Med / High Q	Med - High	High	Yes	?
	Workplace							
	Corporate - Local	1350		Corporate, caterer, some High Q	Low - Med	Med	No	Low
	Corporate - Remote / Offshore	500		Corporate, caterer, some Med / High Q	Low - High	Med- High	No	Low - Med
	Government	200		Govt dept, caterer, some Med /	Low - High	Med	No	Low - Med

	High Q						
Airline							
Flight Catering	> 7m pass per month	65 million	Corporate, caterer, all High Q	Very High	Med	No	Low - Med
Lounge Catering	60	15 million	Corporate, caterer, all High Q	High	Med	No	Low - Med
Pre-Prep   Ready to Eat							
Household meal delivery	~ 100,000 hholds	15 million	Corporate, Med / few High Q	Med - High	Med - High	No	Low - High
Charitable	?	40 million	Charity, operations, volunteers	Low - High	High	No	?

## **Mushrooms in the Australian Food Service Market – Interviews and Case Studies**

### *Overview*

Gusto Styling undertook the interview phase of the investigation into the use of mushrooms in the Australian food service market.

Initially over 200 organisations were researched covering Health and Aged Care, Education, Manufacturers, Chains/Franchises, Large and Mid Sized Catering Companies, Accommodation, Food Service, Retail and Defence and Correctional Institutions.

From this list a series of businesses were identified to approach for interviews with the key personnel responsible for purchasing, influencing and decision making in the menu development and food ordering process.

These included chefs, purchasing chefs, production managers and directors of a variety of businesses covering a number of key industries, including:

- Inflight Catering – Alpha Flight Services
- Hospitality – Melbourne Exhibition & Conference Centre
- Manufacturing – Prestige Foods
- General catering – Delaware North
- Health – Monash Health

After developing a brief questionnaire Gusto attended the Fine Foods show in Sydney (September 2013) and met with a variety of food companies such as Simplot, Patties, Borgcraft, Australian Culinary Challenge, Baking Association of Australia, Marathon, National Baking Industry Association, Moredough Kitchens and Villi's, to evaluate the questionnaire and better understand the role of mushrooms in these different industries.

Once collated this information led to the development of a more in depth discussion guide / questionnaire covering the critical aspects to be evaluated in the interviews. The one on one discussions were conducted in November 2013.

These interviews allowed us to get an insight and understanding of how these industries / businesses purchase, use and prepare mushrooms and mushroom products in their kitchens and on their menus.

Questionnaire

The discussion guide and questionnaire provided a consistent framework for discussions during the interviews.

Appendix 1

powerofmushrooms.com.au

- We are conducting an in depth research program into the use of mushrooms as an ingredient in the Food Service arena.
- This includes catering, hospitals, mining, schools, restaurants and other associated businesses.
- The desired outcome is to increase the volume of mushrooms and mushroom products used in food service.

Questionnaire

Name:

Company:

Nature of the industry:

SUPPLY

Do you currently use mushrooms?

Where are your mushrooms sourced?

Locally

Interstate

Imported

Who do you source through, i.e. wholesalers, retailers or other?

Is there a constant and sustainable supply of fresh mushrooms available?

What could the AMGA do to improve the supply chain?

Any transport any issues?

USAGE

Any mushroom storage issues?

Are they refrigerated?

What types of fresh mushrooms are used?

White Agaricus

Buttons

Yes

No

Kilos per week?

Cups

Yes

No

Kilos per week?

Flats

Yes

No

Kilos per week?

Swiss Brown

Buttons

Yes

No

Kilos per week?

Cups

Yes

No

Kilos per week?

Flats

Yes

No

Kilos per week?

Exotics

Yes

No

Kilos per week?

Other

Yes

No

Kilos per week?

Are any of the delivered mushrooms pre prepared, i.e. Sliced?

Do you use mushrooms other than fresh?

What reason i.e. Cost, convenience, usage?

Tinned

Yes

No

Are they Australian or an imported product?

Frozen

Yes

No

Are they Australian or an imported product?

Dried

Yes

No

Are they Australian or an imported product?

<u>Kitchen</u>	<u>EDUCATION</u>
How many meals are prepared on a daily / weekly basis?	Would a greater knowledge / understanding of the health benefits lead to increased usage in your organisation?
What sort of meals?	Could the mushroom industry provide any resource / education on the health benefits of mushrooms?
Breakfast YES ► Are mushrooms a regular on the menu?	Could mushrooms value add to your business in any way?
Lunch YES ► Are mushrooms a regular on the menu?	Any further comments or observations on mushroom usage in your organisation?
Dinner YES ► Are mushrooms a regular on the menu?	NOTES:
Other YES ► Are mushrooms a regular on the menu?	
Mushroom preparation and execution:	
Fresh / uncooked YES ► How are they used / prepped?	
Cooked YES ► How are they used / prepped?	
Sauces YES ► How are they used / prepped?	
Microwaved YES ► How are they used / prepped?	
Other YES ► How are they used / prepped?	
What could the industry do to assist in increasing mushroom usage, i.e.:	
Pre prepared Sauces	
Dried	
Pre Prepared Stock	
Other ideas	
<u>HEALTH</u>	
Are you aware of the health benefits of mushrooms?	
B Vitamins <input type="checkbox"/> Yes <input type="checkbox"/> No	
Vitamin D <input type="checkbox"/> Yes <input type="checkbox"/> No	
Antioxidants <input type="checkbox"/> Yes <input type="checkbox"/> No	
Fibre <input type="checkbox"/> Yes <input type="checkbox"/> No	
Immune Function <input type="checkbox"/> Yes <input type="checkbox"/> No	
Cancer Prevention <input type="checkbox"/> Yes <input type="checkbox"/> No	
Less Salt in cooking <input type="checkbox"/> Yes <input type="checkbox"/> No	
Low Fat <input type="checkbox"/> Yes <input type="checkbox"/> No	
Would hi dose Vitamin D mushrooms be of interest to your organisation?	
What health benefits to your consumers could be derived from providing (more) mushrooms on your menu?	

### Value-Added

The interview also provided an opportunity to investigate what the mushroom industry could do to value add, and explore what products the industry could provide that would assist them in their businesses using the examples from global providers as stimulus.

Stimulus 1 – Scelta Mushrooms – IQF



Information extracted from [www.sceltamushrooms.com](http://www.sceltamushrooms.com)

# Value-added assortment

Our selection of **mushroom snacks**



**/ Breaded whole mushrooms**  
IQF frozen, pre-fried  
available as: natural / garlic / cajun / parsley /  
lemon & black pepper



**/ Breaded sliced portobello mushrooms**  
IQF frozen, pre-fried  
available as: natural / roast garlic / herbes de provence /  
4 cheeses / focaccia



**/ Fingerfoodballs®**  
IQF frozen, breaded  
available as: mushroom-cheese / broccoli-mushroom /  
spinach-mushroom

## Stimulus 2 – Scelta Mushrooms – Extracts & Powders

# Flavourings

## Mushroom **flavourings** in concentrate and extract powder

Our production partner Scelta Umami in Belfeld manufactures mushroom flavourings in concentrate and extract powder rich in **umami** using our **Waste2Taste** process. We use mushroom parts and residues from mushroom processing which normally go to waste – such as mushroom stems and cooking juice - to produce concentrate in liquid form. This concentrate is also spray-dried into mushroom extract powder form.

1kg **concentrated taste** equals 25kg fresh taste!

Our mushroom concentrate serves as a base for soups and sauces. It can also be used as a flavour enhancer for a variety of dishes without imparting a pronounced mushroom flavour. It is a 100% natural product with the potential to replace monosodium glutamate (MSG) and reduce the use of salt. The concentrate contains 95% of the healthy vitamins and minerals from the mushroom. Tasty and healthy, in other words.



Information extracted from [www.sceltamushrooms.com](http://www.sceltamushrooms.com)

Stimulus 3 – Dole Vitamin D powder

Dole D Mushroom Powder  
The all natural source of vitamin D

- 100% FDA DV (400 IU) in just 20mg = 20,000 IU vitamin D2 per gram
- From fresh whole mushrooms - species: portobello, white button, shiitake, oyster
- Mushrooms are dried and ground into a fine powder
- Non-GMO
- Dole D is 100% mushroom powder; no additives, nothing extracted but water
- Illuminated with UV-B light (patent pending)
- 50,000 servings of 100% Daily Value (400 IU) per kilogram
- 50 million servings of 100% Daily Value per metric ton
- 500 million servings of 10% Daily Value per metric ton
- Product of USA
- At a dose of 400 IU per day or 20 mg of Dole D per day, only 7.3 g per person per year would be needed to meet 100% Daily Value for one person
- At this daily dose, 219,000 metric tons of Dole D powder would meet the needs of 3 billion people per year
- Manufacturing one metric ton per day provides 50 million servings of 100% Daily Value, creating an annual supply of 100% Daily Value of vitamin D to as much as 18 billion doses

Information extracted from [www.dolevitamind.com](http://www.dolevitamind.com)



**Portobello Mushroom Powder**

1 teaspoon = 150% Vitamin D DV

**Great in:**  
Soups & Stews • Sauces • Casseroles  
Dressings • Entrées • Pasta • Rice

**Nutrition**

Most vitamin D supplements derive from rendered wool grease, yeast or fish livers? Ick! By contrast, our Portobello Mushroom Powder provides an all-natural, plant-based vitamin D source that's perfect for any diet -- including vegan or raw.

- "Vegitable Vitamin D -- Every Day, Naturally!"
- Product of USA
- The only 100% vegan, plant-based vitamin D source available, requiring just one level tsp for 150% of your Daily Value needs
- 100% natural
- Hearty aroma and flavor
- Effective as a salt substitute
- UPC codes for both product sizes

**Blogs**

Vitamin D-Packed Mushroom Powder And Other Shocking Discoveries

Sunny Mushroom Nuggets

Sunrise Run - New Dole Products

**Press Release** [DOWNLOAD](#)

**BUY NOW**

**Featured Recipe**  
Whole Wheat Pasta Primavera



**NEXT**

**Prep:** 15 min.  
**Cook:** 25 min.  
**Makes:** 3 to 4 servings

1/2 pound lean ground turkey  
1 red bell or yellow bell pepper, cut into 1-inch chunks  
1 tablespoon paprika  
1 tablespoon DOLE® Portobello Mushroom Powder  
1 can (14-1/2 oz.) tomato pieces  
1 can (14-1/2 oz.) chicken broth  
4 ounces thin whole wheat spaghetti, broken  
2 cups DOLE Broccoli Florettes  
1 cup DOLE Cauliflower florettes  
1/4 cup grated Parmesan cheese  
2 tablespoons chopped parsley

Cook turkey in large nonstick skillet, about 2 minutes or until browned. Stir in bell pepper, paprika and mushroom powder. Reduce heat, stirring 2 minutes longer. Stir in tomato, broth and spaghetti.

Heat to boiling. Stir in broccoli and cauliflower. Reduce heat to low; cover and simmer 20 minutes or until spaghetti and vegetables are tender.

Stir together parmesan and parsley in small bowl. Sprinkle over pasta.

Dole's **Vitamin D**  
Mushroom Powder  
for product manufacturing



**Product, Applications & Versatility**

**Product Specifications:**


- Milligram volume per serving, 10% DV in just 2 milligrams
- Versatile and compatible in any food, supplement, cosmetics application
- 9% moisture
- Color typical for each mushroom species
- 70 mesh flour, 212 micron particle diameter
- 30-70 mesh size on customized orders
- Contains both insoluble and soluble fibers; a rich source of beta-glucans prebiotic fiber and chitin

**Powder Versatility:**

- A versatile powder for **industrial applications in milligram quantities:**  
an ingredient for food manufacturing, animal nutrition, supplements, cosmetics, flavor applications
- A versatile powder for **culinary applications in teaspoon quantities:**  
sauces, rice, pasta, casseroles, soups; even smoothies, bread, oatmeal, desserts

Mushrooms in the Australian Food Service Market – Case Study – Alpha Flight Services

### Alpha Flight Services



30 Springbark Street  
Tullamarine 3043, VIC

www.alpha-group.com

Segment: Institutional

Sector: Airline Catering

Interviewee: Mark Bowering

Role: Purchasing Chef

"Making travel special is about knowing what customers want. Our knowledge of consumer, food and packaging trends combined with the creative flair of our team of award-winning development chefs enables us to put insight at the heart of what we do."

Overview

Alpha Flight Network is an international company with locations in 59 cities throughout Europe, Asia, USA and Australia (10).

Alpha Flight Services Australia is a member of the Plenty Food Group, based in Tullamarine. They provide inflight catering services to a number of national and international carriers and are the largest pre prepared and pre packed in flight caterers in Australia. Other major in flight caterers based in Melbourne are Q Catering and Gate Gourmet.

Airlines that are serviced by Alpha include Emirates, Royal Brunei, Malaysia Airlines, Garuda, Qatar, Emirates, Etihad and Virgin. They have won a string of awards including Malaysia Airlines for best caterer.

Alpha provide pre prepared meals, foil lidded completely trayed up for economy, business and first class on these airlines, covering all meal events from breakfast through to supper.

They deal with up to 80 flights a day locally and internationally including A380 aircraft and all meals are prepared at Tullamarine. They need to cater for Halal, as well as any specific dietary requirements and their menu production is heavily food safety controlled.

Current Use and attitude towards Mushrooms

Mushrooms are used **on breakfast, lunch and dinner menus** in a number of offerings, fresh usage up to **140 Kg** a week.

**Versatility** is a key to having mushrooms on the menu as they either feature as the key ingredient or complement dishes they are used in.

Agaricus mushrooms are sourced locally through food service company Tasty Chips, ([www.tastychips.com.au](http://www.tastychips.com.au)) and are delivered **sliced or quartered** according to order. Mushrooms are **not washed or peeled** prior to use.

As they service Business and First Class a number of exotics are also used, Enoki (salads) King Brown, Shitake and Oyster but the majority are white agaricus.

The only tinned mushroom used is Bailing for speciality meals.

A 12 month rotating menu is used on most of the airlines and some of the directions for menu inclusion are directed by consulting chefs, Virgin for example has Luke Mangan others include Neil Perry (Qantas), Heston Blumenthal (British Airways).

A nutritionist is consulted for all meals to ensure good nutritional values.

In addition, 3rd parties supply products that include mushrooms to Alpha.

These include:

- Passion Pasta ([www.passionpasta.com.au](http://www.passionpasta.com.au))
- Alligator Brand ([www.alligatorbrand.com.au](http://www.alligatorbrand.com.au))

Both provide pre prepared mushroom filled pasta products that are then cooked at Alpha's kitchens.

A typical ingredient breakdown of Passion Pasta's Lasagna:

Lasagna Mix

**Mushroom Diced 16.7%** / Carrot Diced 16.7% / Potato Diced 16.7% / Capsicum Diced 16.7% / Celery Diced 16.7% / Silverbeet Diced 16.7%

*Mushroom Knowledge / Health Benefits*

Health awareness wasn't high on Mark's agenda although he did refer to mushrooms as being 'Meat for Vegetarians'.

Didn't believe that the health benefits would flow through to the consumers unless supported by additional information, which he didn't think was viable in his instance.

So a high dose Vitamin D mushroom (or powder) wouldn't be a consideration.

*Interest in Value Add*

Interested in any developments in commercial bases or mushroom essence if they were available as they would be time saving, flavour enhancing offerings.

Summary & Key Actions

- Alpha is an active mushroom user and supporter.
- Open to new product development in the mushroom arena.
- Believes there are two ways to increase mushroom usage:
  - Lobby the consulting chefs to educate them about the Power of Mushrooms and encourage more mushroom usage, for instance a menu item – with Luke Mangan’s Vitamin D mushrooms.
  - Approach the 3rd party suppliers about increasing the mushroom content of their meal offerings for example Passion Pasta’s Lasagne increasing from 16.7%.
- Interested in receiving updates on health and product development via digital modes.

Interview conducted: November 2013 by Stephen Bell from Gusto Styling

Mushrooms in the Australian Food Service Market – Case Study – MCEC



**Melbourne Convention & Exhibition Centre**

1 Convention Centre Place  
South Wharf, Melbourne 3006

[www.mceu.com.au](http://www.mceu.com.au)

Segment: Commercial

Sector: Function & Conference

Interviewee: Tony Panetta

Role: Executive Chef

“We understand how important food is for your event. That’s why we’ve taken the time to ensure our food is the absolute best. We work with you to tailor a menu specific to your event, assembled in our kitchen from locally-sourced food and wine.”

Overview

The Melbourne Convention and Exhibition Centre is the name given to two adjacent buildings next to the Yarra River in South Wharf, an inner-city suburb of Melbourne, Victoria, Australia.

A 6 star energy rated building MCEC is home to the largest kitchen in the Southern Hemisphere and 90% of the menu items are prepared in house. There are 14 chefs from various countries around the world and they travel to local farms, orchards and vineyards to source the best seasonal ingredients.

"Our food and wine philosophy is simple. We think local and support Victorian producers and suppliers that are sustainable. This means we reduce the emissions associated with transport while supporting producers who share our vision for a greener world."  
The centre contributes \$360 million a year to the Melbourne economy and the food budget is around \$25 million per annum.

#### *Current Use and attitude towards Mushrooms*

Mushrooms are on the list of ingredients used at MCEC because of their **versatility** and ability to be used across a **raft of menu** options. Also being able to source them locally fits with the local produce, local community emphasis.

In line with their locally sourced philosophy mushrooms are sourced through Dimatinna Provedores ([www.dimattina.com.au](http://www.dimattina.com.au)). They have also sourced direct from Bulla Mushrooms and Parwan Mushrooms.

Around 80 boxes (**320kg**) of **field mushrooms** are used per week and are **not peeled or washed** prior to use. They have a speciality dish that comprises of a field mushroom trimmed with a standardised cutter so there is a consistent size across all servings, topped with parmesan and spinach and oven baked.

**White Buttons** are used for breakfast offerings and there are other speciality mushroom dishes - Mixed mushroom salad, a mixture of **button, shitake, enoki, oysters** served with a seaweed butter and Japanese mescalun lettuce.

Other mushroom offerings:

- Grilled field mushrooms
- Avocado and mushroom omelette with house baked sourdough
- Roasted kipfler, rosemary and Parmesan frittata with red onion jam, organic Cumberland sausage, sautéed spinach on field mushrooms with mustard and Coldstream tomatoes
- 80g breakfast steak with crispy bacon, smashed potato, baked roma tomatoes, sautéed mushrooms and free range eggs en cocotte
- Piperade cannellini beans with baked free range eggs, house baked sourdough bread, sautéed spinach, field mushrooms and Coldstream tomatoes

Tony is big fan and a big user of mushrooms - any offcuts from mushrooms or any older mushrooms are made into mushroom stock for sauces.

Tony is driven by nutrition as well as flavour but rather than use the services of Nutritionists or Dieticians he is in the process of training his chefs to assume this role in house.

#### MCEC'S KITCHEN IN NUMBERS



#### *Mushroom Knowledge / Health Benefits*

Tony was generally aware of the health benefits of mushrooms although was not across the research around mushroom consumption and reduced cancer risks.

He was also not aware of Vitamin D enhanced mushrooms. If vitamin D mushrooms were available locally and competitively priced he would be interested in using them.

Would also be very interested in getting laminated posters to put up in the kitchen with varieties as well as health messages. He is passionate about superfoods and mushrooms fit the bill.

Tony recommended an approach to Catercare ([www.catercare.com.au](http://www.catercare.com.au)) who service Education, Business and Industry, Retirement and Aged Care, Remote and Mining, Government, Defence, Health and Offshore

He feels the health messages would have more resonance within these market sectors.

#### *Interest in Value Add*

Tony was interested in the idea of a mushroom essence and perhaps a Vitamin D powder, but stocks and Sauces are all prepared in house in accordance with their food philosophy. Not interested in frozen pre prepared crumbed.

#### *Summary & Key Actions*

- MCEC is already a big mushroom user and Tony is a passionate mushroom supporter.
- Would like to be kept abreast of new product development.
- Will continue to assess options to increase mushroom inclusion in line with consumer / client preferences.
- Interested in receiving updates on mushroom health and product development via digital modes. Also food service website for ideas, inspiration and general news
- Believes that laminated posters (health & variety) in kitchens would be useful and would use them.

Interview conducted: November 2013 by Stephen Bell from Gusto Styling

Mushrooms in the Australian Food Service Market – Case Study – Prestige Foods



**Prestige Foods**

1/7 Wynyard Street  
South Melbourne 3025, VIC  
[www.prestigefoods.com.au](http://www.prestigefoods.com.au)

Food Service Manufacturer

Commercial & Institutional  
Domestic & Export

Interviewee: Mike Murray

Role: Managing Director

Overview

Prestige Foods is a leading exporter of food, wine, agricultural and hospitality products from Australia and New Zealand.

The company operate in several different environments covering various aspects of food export and production.

They currently export to international five-star hotels and resorts in Sri Lanka, Bangladesh, Pakistan, Dubai, Singapore, Hong Kong, Indonesia, the Seychelles, and the Maldives - which is currently their largest market.

They have successfully operated for over 20 years and have a state-of-the-art stock manufacturing plant which continues to be upgraded to ensure the latest processing and packaging techniques are available.

The company also produces Prestige-branded stocks which are sold throughout Australia and internationally.



### *Current Use and attitude towards Mushrooms*

#### **Stock and Extract**

Prestige recently formed a relationship with a Victorian mushroom grower, to take the **stems and any broken reject mushrooms** and process them at their factory in Braeside.

They have made an extract and a stock with very favourable results, **50Kg of mushrooms makes 1Kg of extract**.

They are continuing trials to see what can be achieved from an extraction/yield point of view and to start investigating how they can best use and market this product.

They have further entered a commercial arrangement with Saizeriya ([www.saizeriya.com.au](http://www.saizeriya.com.au)), a Japanese owned food service supplier based in Melton, VIC who they are looking at a whole range of uses for this extract.

One of the most important things that they need to determine is just how much of this raw material (mushrooms) is available over what period, so as to increase the quantity of product available.

They are also exploring **retorting** (a food processing method using aseptic processing (flash-heating process (temperature between 91° to 146°C), and then packaging in a format made from multiple layers of flexible laminate, allowing for the sterile packaging) and **drying** mushrooms to see what sort of application they can apply using the equipment they have available at their Braeside factory.

The capability of drying mushrooms could potentially lead to the domestic development of **Vitamin D mushroom powder**, similar to the Dole product.

#### **Fresh Mushrooms**

Prestige are actively trying to expand their range of fresh mushrooms into their resort clients in the Maldives. At present around **1 tonne** per year are used but based on increasing demand this has potential to be grown over the medium term.

Most of their purchases to date have been through the Melbourne Market Authority and specifically Dimattina Providores but are currently in discussions with Bulla Mushrooms.

#### *Mushroom Knowledge / Health Benefits*

Mike has an appreciation for the health benefits of mushrooms and is interested in how this can be leveraged in promotion of extract and stock products.

Vitamin D mushrooms are of strong interest for the potential development of extract and powdered product lines.

Summary & Key Actions

- Mike is excited about the mutually beneficial prospect of partnering with the mushroom industry to increase the volume and variety of mushrooms and mushroom products.
  - Believes that there is a great opportunity to substantially increase the usage of mushrooms to produce mushroom based stocks, sauces and extract – with applications in foodservice and retail channels.
- Very willing to explore potential to develop a locally supplied Vitamin D powder product.
- Mushroom growers could recoup some wastage of discarding stems and bruised or damaged product by selling to processors such as Prestige.

Interview conducted: November 2013 by Stephen Bell from Gusto Styling

Mushrooms in the Australian Food Service Market – Case Study – Rod Laver Arena

**Rod Laver Area (Delaware North)**



Batman Avenue  
Melbourne 3000, VIC

[www.rodlaverarena.com.au](http://www.rodlaverarena.com.au)  
[www.delawarenorth.com.au](http://www.delawarenorth.com.au)

Segment: Commercial

Sector: Sporting & Attractions

Interviewee: Asif Mamun  
(Markus Werner)

Role: Executive Sous Chef  
(Executive Chef)

Overview

Rod Laver Arena is part of a series of major sporting venues managed by the Melbourne and Olympic Parks Trust.

The 40 hectare precinct on the outskirts of the Melbourne CBD also includes AAMI Park (capacity 30,000), HiSense Arena (10,500). Rod Laver has a capacity of 15,000 people whilst the larger area known as Melbourne Park adds further capacity through Margret Court arena (6,000) plus the 25 courts of the National Tennis Centre.

Rod Laver hosts major events throughout the year – the most prominent being the Australian Open tennis in January each year. This event attracts of 600,000 visitors. Major concerts are another major drawcard with the facility hosting international acts including Billy Joel, INXS, Justin Bieber and the Rolling Stones. Bob Dylan. The facility set a record in 2013 by hosting 18 shows for Pink with total ticket sales of 238,000.

In total, well over one million people visit Rod Laver Arena each year to view the Australian Open, and attend functions and concerts. On site food options include a variety of superboxes and corporate dining areas, various Arena quick service and cafes as well as player / band lounges.

Delaware North has been contracted to provide all catering services across the Melbourne and Olympic Parks Trust network.

*Current Use and attitude towards Mushrooms*

Mushrooms are a constant on the menu at Rod Laver throughout the year and across the various format of service.

During the peak period of the Australian Open Tennis they use **500kg to 800kg of agaricus mushrooms** (buttons, cups and flats), in a variety of ways, (not peeled or washed) pies, casseroles, side dishes, canapés, (although rarely for breakfasts).

Supplied through a wholesaler who sources through Parwan Mushrooms. There are no storage issues as they are normally used straight away or refrigerated.

They also use a variety of exotics including enoki (raw), shitake, king brown (were imported from Korea but now locally sourced), they also use dried imported porcini mushrooms.

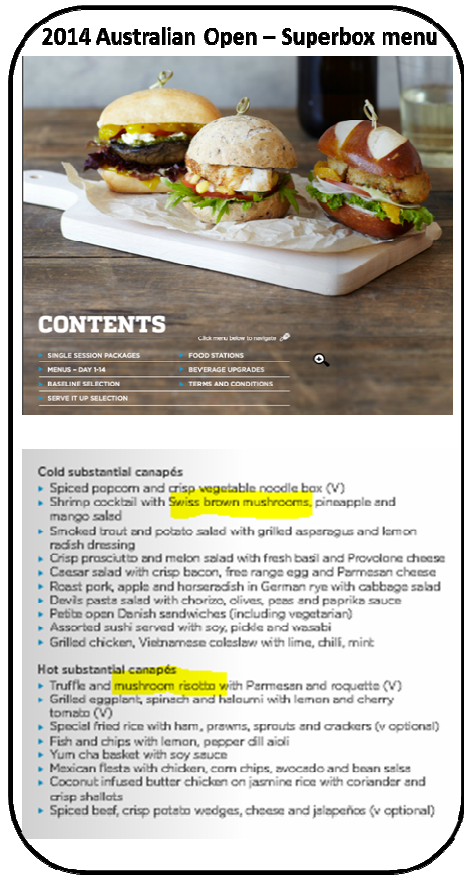
Other mushroom related products used are Truffle paste and Porcini powder (separate from dried Porcini).

The dining options offered vary according to event and location from super boxes, to the Players Lounge and Arena Cafe.

A nutritionist looks at all menu items and rates them for nutritional value, specifically during the tournament in the players lounge.

Selection of dishes prepared using mushrooms include:

- Char grilled premium MSA scotch fillet with field mushroom, herb salad and crisp speck and garlic beans
- BS Baby spinach shitake mushrooms snow pea tendrils and miso dressing



- Braised veal and mushroom risotto with parmesan rocket salad
- Char-grilled lamb fillet in shank broth, vegetable brunoise, roasted garlic foam, parsley and enoki mushroom salad

#### *Mushroom Knowledge / Health Benefits*

Overall consideration of health and nutrition is emphasised within the Melbourne and Olympic Parks Trust group, in particular RLA due to the Australian Open and the nutritional and dietary requirements of the players and support staff.

Was not aware of all the health benefits of mushrooms but would like to be kept up to date with any new developments or information.

Not sure if Vitamin D mushrooms would be of interest but would like as much information as possible to discuss internally.

#### *Interest in Value Add*

Would like to be also kept up to date with any new product development, such as the value add products developed by Scelta, (Breaded Mushrooms and Mushroom Balls) as they fall into the canapés segment, which accounts for a lot of their event consumption.


#### *Summary & Key Actions*

- Rod Laver Arena (Melbourne and Olympic Parks Trust group) is currently a strong user of mushrooms.
- Would like to be kept abreast of new product development and also health information.
- Delaware North has a large and diverse high volume national footprint that appears to be willing to embrace new development, and new ideas.
- Continue building the relationship through information and communicating innovation such as the development of mushroom essence. Sustained one on one personal dialogue with key decision makers appears to be the best method to unlocking increased consideration of mushrooms within the total group.
- The opportunities to branch out into the other areas that Delaware service are enormous.

Interview conducted: November 2013 by Stephen Bell from Gusto Styling

Mushrooms in the Australian Food Service Market – Case Study – Monash Health

**Monash Health (formerly Southern Health)**



Warrigal Road  
Cheltenham 3192, VIC

[www.monshhealth.org](http://www.monshhealth.org)

Segment: Institutional

Sector: Health

Interviewee: Peter Fischer

Role: Production Manager

Overview

Monash Health is the largest public health service in Victoria. Their facilities support over 2,000 beds and include:

- Monash Medical Centre Clayton (640 beds)
- Moorabbin Hospital (135 beds)
- Dandenong Hospital (520 beds)
- Casey Hospital (243 beds)
- Kingston Centre (192 beds)
- Jessie McPherson Private Hospital (106 beds)

Additionally, a range of community health service centres are operated, along with five aged residential care facilities (294 beds). Over 13,400 staff work at over 40 sites, admitting over 201,000 hospital patients, handling over 179,000 emergency presentations and delivering over 8,600 babies.

A centralised state of the art, purpose build food preparation facility has been specifically designed to deliver cost effective meals across the network in an efficient and hygienic manner. All meals are transported in their own food grade delivery trucks to their locations.

**4,500 meals** (1.6m per annum) are prepared every day concentrating on breakfast and dinner with a light lunch.

There are eight chefs onsite responsible for various meal components and preparation, Peter, as production manager, is responsible for the entire facility and the chefs report directly to him

Patient menus operate on a 28-day cycle to provide a variety of meals to all patients as well as children's and infants' menus and the ability to cater for Kosher and Halal meals plus special dietary requirements.

**(50% mushroom volume recipe)**

Southern Health CPK

20 Nov 2013 10:13 AM

All vegetable products are delivered pre prepared to order, i.e. sliced, diced, quartered, whatever the menu or meal requires. This is a time saving process freeing up the chefs to concentrate on meal creation.

Mushrooms are featured on the menu at Monash Health in a number of dishes.

Apart from the soup a further **30 – 40Kg** per week are used in other meals such as casseroles, salads and vegetarian offerings.

Food service supplier Tasty Chips ([www.tastychips.com.au](http://www.tastychips.com.au)) provides:

- 4Kg bags sliced
- 4Kg bags diced

- 5Kg bags chopped

71

- 4Kg boxes of cups

#### *Mushroom Knowledge / Health Benefits*

Peter has some awareness of health benefits of Mushrooms, but very interested in the Vitamin D powder depending on cost and availability.

Health is of course paramount in their customer facilities and if healthy diet is enhanced by using more mushrooms or mushroom products they would consider it.

It is a very heavily cost driven industry. For instance, if it is cost effective, can the vegetable booster in the mushroom soup recipe be substituted with a mushroom product (extract / powder)?

#### *Interest in Value Add*

Would like to be also kept up to date with any new product development, particularly around Vitamin D products.

#### *Summary & Key Actions*

- Monash Health is a large and diverse multi-site food provider covering many medical facilities and gives good insight into how menus, food and production occur within the health system. The health sector overall has strong potential to respond to mushroom information about health benefits.
- Monash Health currently uses mushrooms as part of its core menu. Open to increasing usage based on cost constraints, particularly if there is a health benefit to include.
- Would like to be kept abreast of new product development and also health information.

Interview conducted: November 2013 by Stephen Bell from Gusto Styling

### Mushrooms in the Australian Food Service Market – Case Studies – Key Findings

The interview research proved to be a valuable and worthwhile exercise, examining various sectors of the foodservice industry as well as looking at manufacturing and what mushroom offerings can be introduced into both the foodservice sector.

It has also provided some good feedback into how mushrooms are viewed in foodservice and the general knowledge of the health benefits of mushrooms.

Key findings included:

- Mushrooms were used at all of the businesses, there were no reports of lack of supply or issues with transportation or quality of product.
  - While there are exotics used in specific instances the vast majority of mushrooms used are agaricus, and none of the businesses washed or peeled the product prior to use.
- All of the chefs indicated that mushrooms are a must have on the menu for a variety of reasons:
  - They are versatile
  - They complement many other foods
  - They are readily available
  - There are a number different types / varieties offering many & varied uses
  - There is great customer and consumer acceptance of mushrooms as an ingredient or basis for delicious meals
  - Storage is simple
- There were no comments or references to the cost of mushrooms being an issue that restricted use or that they didn't compete favourably with other ingredients.
- There appear to be no barriers to increasing usage apart from a lack of innovative ideas (and the desire to have a varied menu), which could be included in a cost comparison exercise replacing an existing ingredient with mushrooms.
- There is a broad interest in an ongoing communication program specific to foodservice where the product development, health research and benefits are made available including a website and direct communication on a semi regular basis.
- There appear to be a number of opportunities to introduce value added products such as those detailed in the stimulus material.
- Further sectors to explore would be those with a high emphasis on health including defence, correctional centres, education as well as high quantum players.

### **Summary & Recommendations – Stage 1**

Stage 1 of the Opportunities for Mushrooms in Food Service project provided a strong understanding of the current Food Service market environment in Australia.

The desk research allowed for a sound assessment of the market size & scope, the supply chain and the dynamics of the various segments and sub sectors.

The analysis allowed a stronger appreciation for the diversity of the operators and the fragmentation of the industry between high numbers of sole operators and a small number of chains and multi sector players who have high quantum's of influence. These provide a strong opportunity for the industry to efficiently reach key decision makers whose judgements can impact on multiple high volume points of distribution.

The Stage 1 observational research highlighted that there is wide use of mushrooms in food service across many segments with varying intensity. Notwithstanding there would appear to be scope for increased penetration.

This was re-enforced by the findings of the interview research which indicates that mushrooms are a favoured and regular ingredient with no barriers around price / perishability identified amongst the end user segments.

Price is certainly a factor when it comes to processing / value-adding where ensuring low costs inputs are crucial to developing commercially viable products.

Opportunities for communication with a food service specific focus to driven usage ideas and health awareness have been identified.

There is an interest in value-added products, in particular Vitamin D mushrooms, most specifically in extract / powdered form.

Based on the outcomes of Stage 1 it was recommended that the following collaborative projects be initiated in Phase 2 of the Opportunities for Mushrooms in Food Service project:

1. Methods for developing sustainable partnerships with High Quantum Food Service Key Decision Makers
2. Exploring Digital Resource Requirements for effective Food Service industry communication
3. Assessing Opportunities for Value Adding in Food Service / Manufacturing

## Stage 2 - Food Service Collaborative Projects (2014/15) – reported June 2015

### *Scope*

In June 2014, the first phase of the MU 12006 project – *Opportunities for Mushrooms in Food Service*, a comprehensive analysis of the use of mushrooms in the food service sector was delivered in the form of a Market Map & Opportunity Blueprint.

This document detailed key opportunities for the mushroom industry in further addressing the food service sector.

Based on the outcomes of Stage 1 it was recommended that the following collaborative projects be initiated in Phase 2 of the Opportunities for Mushrooms in Food Service project:

1. Methods for developing sustainable partnerships with High Quantum Food Service Key Decision Makers
2. Exploring Digital Resource Requirements for effective Food Service industry communication
3. Assessing Opportunities for Value Adding in Food Service / Manufacturing

These projects were agreed and endorsed by the Mushroom Industry Advisory Committee (MIAC) at a meeting in mid-2014.

The Phase 2 projects commenced in July / August 2014, with various tasks undertaken to meet the agreed workplans for each project over the ensuing 9 months. All projects were completed by early June 2015.

## Project 1 - Methods for developing sustainable partnerships with High Quantum Key Decision Makers

### Background

Analysis completed in Phase 1 of the MU 12006 project identified that in general the Australian Food Service industry has a low level of supplier concentration with tens of thousands of single outlet owner operators competing against a relatively small number higher scale multi-outlet operators.

Within this context there are around 25 'mega' players who cross into multiple segments of the food service industry and service outlets counts in the hundreds and even thousands.

Additionally around 40 'chain' food service operators with more than 100 stores operate in Australia, typically in the Quick Service Restaurant (QSR), Fast Casual Dining (FCD) and Café segments.

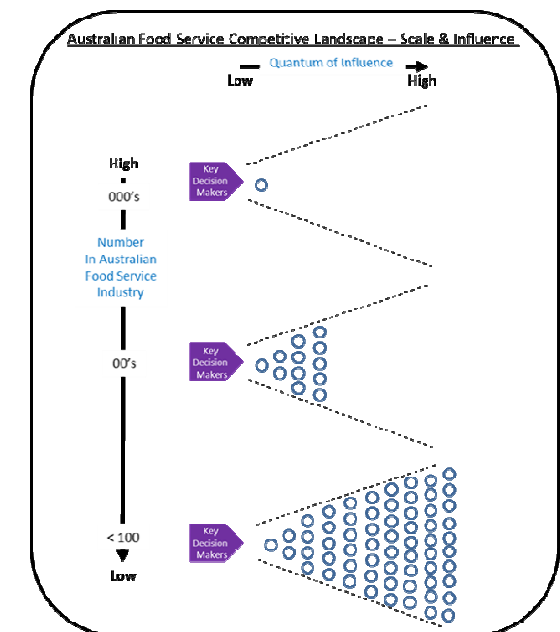
In these environments decision making is often centralised with 'corporate' decisions on menu flowing through to the various points of final distribution for their food offers.

The decision makers in these organisations though relatively few in overall number, have a significant quantum of influence in terms of volume generated.

In summary those in the high quantum of influence category provide an efficient approach for suppliers as one set of decision makers can drive the outcomes for multiple locations.

### Project Selection Rationale

- High Quantum organisations provide substantial ongoing volume opportunities for mushrooms
- Efficient / high impact industry resource investment with one set of decision makers influencing a broad footprint



### *Objectives*

- Build relationships with a variety of high quantum organisations to better understand decision making processes
- Explore current usage/attitude towards mushrooms
- Assess information / resourcing / initiatives that could drive increased ongoing usage of mushrooms
- Use feedback to inform / feed-in to Collaborative Project 2 (and potentially Project 3)

### *Approach*

- Identify high quantum organisations across both commercial and intuitional segments
- Develop questionnaire to collect data and initiate interviews with key decision makers
- Assess and action any immediate direct opportunities
- Collate feedback and develop best practice approaches for future implementation by the industry

### *Overview*

- In reviewing the various high quantum organisations operating in the Australian Food Service sector, the most prolific number of operators were identified in the Quick Service Restaurant (QSR) and Fast Casual Dining (FCD) segments.
- It was determined that a focus on QSR and FCD – both suppliers and operators, would provide the best return on effort.

### *Scope*

- Three high quantum organisations with exposure to these segments were targeted for interview and ongoing interaction:
  - a. Subway (>1,100 restaurants in Australia)
  - b. McCormicks (supplier to 000's of food service establishments with strong exposure to QSR and a key supplier to Subway)
  - c. Nando's (>270 restaurants in Australia)

Method

- A process template including guidance questionnaire was developed for use as a checklist for collecting information.
- Interviews were conducted (phone and face to face).
- Extra information and follow-up was provided as requested.
- Ongoing advice, encouragement and information was provided to drive identified opportunities.

Process Template – Guidance Questionnaire

Process

- Identify a high quantum commercial organisation with an opportunity to begin to use mushrooms or an opportunity to increase mushroom usage.
- In depth desktop investigation of the organisation to garner as much background information as possible.
  - o Where do they operate i.e. local, state, national
  - o Is the menu local, state, national or international
  - o Who are their current suppliers of other product
  - o Do they source locally, statewide or nationally
  - o Is there a central purchasing office, local, state based or nationally based
  - o Use any existing / relevant industry contacts to assist with intelligence gathering
- Ascertain from this information what level of approach is required i.e.
  - o Who is the gatekeeper
  - o Who makes purchase decisions
  - o At what level does their position operate
  - o Is there a senior who can effect the decision making process, if so how to approach that individual or individuals

Resources

- Resources required to make a case for mushrooms at the meeting:
- o General information about mushrooms and consumer demand
  - o Nutritional information with POM branding
  - o Vitamin D materials with POM branding
  - o Approximate costings (based on a general approach)

Once this has been done preparations are complete for the target organisation

Engaging the Opportunity- Guidance Questionnaire

During discussions seek out the following information:

- o What, if any, is their current mushroom usage?
- o Is there an impediment to using mushrooms in the organization?
- o Are they aware of the difference in mushrooms and varieties available?
- o What timeframe is the norm with new menu items?
- o What delivery channels do they currently use?
- o What opportunities do they see for mushroom usage?
- o Storage requirements and Shelf life expectations?
- o Logistics of delivery, can we piggy back on to any of their current supply chain?
- o What type of mushrooms would they envisage using, approximate volumes?
- o Is there an opportunity for using Vitamin D enhanced mushrooms?
- o Do they have seasonal menus where new menu items are introduced - Is this a good way for mushroom growers to enter the game?
- o What promotional materials could be supplied to support their mushroom offering?

Follow Up

- o Provide any requested information within 1 day if possible
- o Respond in writing detailing responses to all of their questions or ask for further elaboration if required
- o If requirement for sourcing understand needs of supply chain – local, state, national

Collaborative Projects – Project 1 – Case Study a. – Subway

**Subway Systems**



Level 1, Brunswick Place,  
42 Amelia Street,  
Fortitude Valley, QLD 4006  
[www.subway.com.au](http://www.subway.com.au)

QSR Operator

Contact: Fiona Martin

Role: Senior Marketing Manager

Contact: Darren DeBarros

Role: Regional Food Technologist

Overview

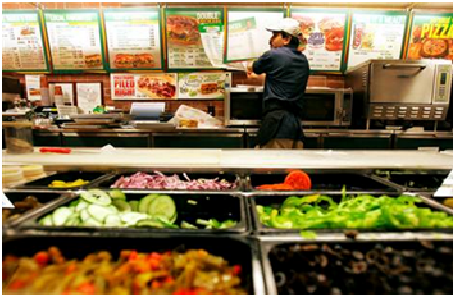
Subway is an American based quick service restaurant franchise which focuses on submarine sandwiches (subs) and salads. The company has had a strong focus on health in its menu using the slogan 'Eat Fresh'.

The brand was founded in 1965 and is owned and operated by Doctor's Associates Inc. It is the largest single-brand restaurant chain and the largest restaurant operator in the world with over 43,000 restaurants in 110 countries

The first Australian store opened in Perth in 1998.

The Australia/New Zealand regional franchise support hub is based in Brisbane. As at 2015, there are over 1,400 Subway's operating in Australia. Australia is the largest market (by store count) outside North America for Subway and it is also the most prolific food chain in the country.

Subway provides a standardised menu across its network and all range, supply and marketing decisions, along with operational support for the franchise network, is conducted in Brisbane, with reference to head office direction set at global headquarters in Connecticut, USA.




### *Opportunity*

It was identified that mushrooms were not part of the salad menu option available at Subway.

In 2014 Avocado was added to the menu, so it was seen by the project team that Subway was open to new options.

The opportunity was to put forward mushrooms as a Subway salad option, providing a consumer led case as to why mushroom would add value to the offer.



Salads	
Capsicum	Olives
Carrot	Pickles
Cucumber	Tomato
Jalapenos	Avocado
Lettuce	Onion

### *Key Insights*

Currently NPD (New Product Development) sessions are conducted in March, where all suppliers present their new ideas for the Subway menu.

This is carried out in house and all suppliers get to see what their competitors are presenting to the Subway panel. Once ideas have been adopted by Subway they become Subways intellectual property. There is no time frame for ideas / ingredients to be implemented.

There are a limited number of bays in the salad areas in restaurants so a new menu item would have to replace an existing line (one in - one out).

Currently Subway use IPCA ([www.ipca.biz](http://www.ipca.biz)) as their supply chain, operating the purchasing and distribution programs.

IPCA is owned by the Australian and New Zealand Subway Franchise. The business is seeking to bring this function in house to streamline and reduce costs and a rollout of internal support for this business stream has already begun. The goal is to deliver a supply chain that can service their stores nationally.

Each quarter there is a test of all products that cost the suppliers \$1,000 per test. There is also an annual NIP (Nutritional Information Panel) test costing suppliers \$2,000 and a complaints solution fee of \$75 per franchise complaint over supplied ingredients.

### *Feedback and Learning's*

Initial discussions with the Senior Marketing Manager (Fiona) indicated that Subway was not interested in adding any further salad items to the menu at the moment and that any new submissions needed to be in line with the company NPD process.

She did ask that we send through any information on mushrooms, with links to the POM website specifically the health and nutrition pages which was done.

Subsequent follow-up with Fiona led to more discussion of the opportunity but that there were no immediate direct opportunities.

Fiona is a candidate for ongoing direct communication from the Industry as a key learning is that:

1. The timelines for decision making are lengthy and protracted;
2. Any approach needs to be made in the context of the business new product development process;
3. That providing information as to the commercial upside of inclusion of mushrooms (eg. information about consumer interest, competitors using mushrooms) may at a point in time drive proactive re-assessment.

A further learning is that:

4. There may be opportunities for the Industry to introduce mushrooms into Subway through the NPD submissions of various suppliers.

#### *Outcomes*

As at the conclusion of the Project stage mushrooms have not been included on the Subway menu but the opportunity remains.

Through the project work a clear pathway to take part in new menu item development has been identified.

Further, the need for ongoing and systematic communication from the industry is important in highlighting mushrooms as a strong commercial opportunity is crucial.

All contact managed by Stephen Bell from Gusto Styling

### Collaborative Projects – Project 1 – Case Study b. – McCormick Foods

## McCormick Foods



**63-71 Fairbank Road,  
Clayton South, VIC 3169**

[www.mccormick.com.au/food-service.aspx](http://www.mccormick.com.au/food-service.aspx)

**Food Service  
Ingredient Supplier**

**Contact:** Simone Fergie  
**Role:** Head of Culinary

**Contact:** Michael Hepworth  
**Role:** Account Manager Foodservice

## Overview

McCormick Foods (Australia) is a subsidiary of McCormick & Company, a US based multi-national that manufactures spices, herbs, and flavorings for retail, commercial, and industrial markets.

McCormick & Company is the largest producer of herbs and spices in the world.

In Australia, McCormick Foods provides retail products sold in major supermarkets and food stores including extensive range of herbs and spices, recipe mix meal bases and instant packet sauces.

The Food Service Division of McCormick Foods Australia provides an extensive range of herbs, spices and seasonings, as well as ready to use wet sauces that are available nationally through many major and local distributors.

They also produce a wide range of tailored ingredients and specialty food products for the Fast Food, Snack Food, Food Processor and Food Service industries.

All contact managed by Stephen Bell from Gusto Styling

### 1. 2015 Australian Flavour Forecast - McCormick Foods -

[www.mccormick.com.au/~media/McCormick%20AU/Files/Resources/AustralianFlavorForecast2015.ashx](http://www.mccormick.com.au/~media/McCormick%20AU/Files/Resources/AustralianFlavorForecast2015.ashx)



### *Opportunity*

In discussions with Subway it was identified that it uses various suppliers for its menu creation and ingredients.

Investigations highlighted McCormick Food as a leading Subway ingredient supplier.

The opportunity was to liaise with McCormick to understand their requirements for working with Subway and to explore if there were opportunities for them to include mushrooms in their submissions.

### *Key Insights*

McCormick Foods currently deal directly with Subway regarding provision of culinary resources, menu ideation, recipe development and ingredient builds.

McCormick NPD (New Product Development) for Subway focuses on the annual March NPD sessions (refer Subway case study).

The development of new submissions takes into account local flavour trends, competitor offers and international experience.

The process is ongoing and the food technology inputs to bring ideas to life may take many months (or longer). Extensive internal taste testing and refinement is also required.

The submission includes detailed information including:

- Product Description
- Meal Occasion (Breakfast / Dinner / Snack)
- Product details including key ingredients
- How the product would be used / assembled at Subway



- Detailed technical information is also required including ingredient, allergen and nutritional data

### *Feedback and Learning's*

Interviews and meetings with McCormick personnel validated the market opportunity in terms of volume provided by high quantum organisations such as Subway.

They also highlighted the investment required to develop new products for Subway – in terms of time, effort expended and ongoing management of the account, as well as technical product development and testing costs.

It is also clear that there are no opportunities to introduce a new product outside the standard development process cycle.

With Subway this means that there is only one opportunity per year.

McCormick believed that there is scope for mushrooms on the Subway menu but that persistence and patience will be required given the leadtimes that are imposed. Whilst this may include adding mushrooms as a salad option it could also include mushrooms as a meal component (eg. grilled mushroom sub) or in sauces or other condiments that are supplied by third party vendors.

McCormick is open to working with the mushroom industry in the development of new products.

These could include:


- Specific products for Subway
- Generic products that could be used in the broader food service market

### *Outcomes*

As at the conclusion of the Project stage McCormick remains open to working with the mushroom industry to identify opportunities to include mushrooms in their products.

To activate this opportunity the industry will need to put in place dedicated resources to manage the interface with McCormicks (and other potential partners) and to provide support, encourage and information.

Collaborative Projects – Project 1 – Case Study c. – Nando’s

	<b>Nando's</b>	40 Mollison Street, Abbotsford VIC 3067	www.nandos.com.au	FCD Operator	Contact:	Caroline Westmore
					Role:	Head of Food – Australia/NZ
					Contact:	Lindsay Sacks
					Role:	QA & Technical Manager – Commercial Division

Overview

Nando's is a South African based Fast Casual Dining (FCD) chain that specialises in flame-grilled peri peri chicken. Founded in 1987, in 2015 Nando's operates over 1,000 outlets in 30 countries.

Nando's also serves burgers, pitas, salads, wings and wraps, along with a variety of side dishes.

The first Australian store was opened in 1990. There are currently over 270 Nando's outlets in Australia, operating in all state and territories. Australia is only the 2<sup>nd</sup> company to offer franchised operations in conjunction with company owned restaurants.

The Australian franchise network is backed by a Central Support Office based in Melbourne.

These resources include training, marketing and operations. Menu development, procurement and quality functions are all managed from this central location.



All contact managed by Stephen Bell from Gusto Styling

*Opportunity*

It was identified that mushrooms were on the menu at Nando’s in other parts of the world.

The opportunity was to put forward a business case to include mushrooms as a Nando meal option, as was happening in other parts of the world.

*Key Insights*

Nando’s has some flexibility within its Australian operations to develop new products.

An agreed internal process is used that is led by the Head of Food. New products are assessed for alignment to the Nando’s brand and its core components such as the ability to include PERI PERI sauce in the item.

A business case needs to be developed that details specifications for the products, costings and an assessment as to why the proposed item offers a consumer / commercial upside. Also assessed is how the product would be assembled in store.

Once new products are devised they are presented internally for short listing.

The next phase is to move to more detailed product development, taste testing and refinement.

Once completed the new products are then taken through a detailed trial with the products being tested in selected restaurants.

An interim supply chain may be used for the trial.

Assessments are made based on sales performance, along with customer feedback and input from restaurants as to the feasibility from an operational perspective.



### *Feedback and Learning's*

A series of meetings and communication was held with Nando's commencing in mid-2014.

Working with the Head of Food and the QA Technical Manager, discussions about the inclusion of mushrooms progressed well.

Nando's asked for input and assistance on:

1. Audit of competitors and the general use of mushrooms in FCD/QSR
2. Product alternatives (fresh agaricus – white button & field and brown) and specifications (average size / weight)
3. Ideal storage, preparation modes and shelf life
4. Identification of potential suppliers for national, state and trial supply.

By September 2014, a series of concept products that featured mushrooms had been developed by Nando's product development team for inclusion in internal new product review.



The concepts were presented internally and accepted for further development work to move to the trial stage.

The project team provided input and feedback as required through the development process, in particular as to potential supply chains.

A key learning is that for trials local sourcing may be undertaken when there a relatively low volumes involved (eg. through existing suppliers / general food service wholesalers). This would then transition to national / state based supply if there is a rollout.

After significant product development and QA, a trial of the mushroom products commenced in early June 2015.

Another key learning is the length of time taken to finalise product, quality and supply within a structured corporate environment – in this case around 9 months from the initial concept presentation was accepted.

The products were:

Mushroom Hummusphere (either as a burger or pita wrap) - *Mushroom, hummus, tabbouli & red pepper*

Mushroom Burger - *Mushroom, salad, PERI PERI chutney & light mayo*

Mushroom Pita - *Mushroom, lettuce, capsicum relish & light mayo*

Six restaurants in two states were chosen as trial stores:

NSW: Nando's Blacktown and Macquarie Centre

VIC: Nando's Docklands, Waterfront City, Epping Plaza and Malvern.



### *Outcomes*

As at the conclusion of the Project stage the mushroom product trial at the Nando test stores was ongoing.

Initial feedback is that the mushroom products are proving popular.

In early July Nando's provided feedback that 3 of the 4 mushroom products had successfully met the trial hurdle rates and would be rolled out nationally (~270 stores) commencing in September 2015.

Based on 270 stores x 52 weeks x 3 kilos per week per store this could equate to 42,120 kilos per annum.

It is most likely that Nando's will seek direct purchasing from mushroom growers on either a state or national basis. It is most likely that the supply of mushrooms to Nando's will be tendered.

The experience with Nando's demonstrates that mushrooms can gain traction within High Quantum organisations if:

- Key decision makers are embrative of mushrooms
- A commercial opportunity can be demonstrated (this could be a market gap, a competitive response, reference to international trends or parent company initiatives)
- Ongoing advice, encouragement and information is provided in a timely manner.

## **Project 2 – Exploring Digital Resource Requirements for effective Food Service industry communication**

### *Project Selection Rationale*

- Use of online communication modes increasing across community and in food service
- Phase 1 feedback highlights preference for digital communication
- Current MushroomChef site look/functionality has not been refreshed in many years, content focused only on a narrow portion of fs market, alternative social media channels not explored

### *Objectives*

- Understand how food service industry participants consume / desire online information and what types of information are most useful / valuable.
- Explore requirements / desirability of various modes – website, Twitter, Facebook, Pinterest, e-news, apps, etc
- Assess current content on MushroomChef against industry requirements (and available assets from Power of Mushrooms (POM))
- Develop framework and recommendations for various modes including mock-up of formats

### *Approach*

- Undertake desk research / primary investigation to determine digital information consumption preferences and high value information requirements (linkage from Project 1)
- Review what other food industries are doing to promote in food service via digital modes
- Comprehensive review of MushroomChef website content assessing against best practice
- Development of graphic design concepts / content mock-ups for all identified modes
- Review of concepts by selected cross section of food service operators for feedback and refinement

### *Review of Phase 1 Interview Feedback*

Feedback received in Phase 1 of the project identified a strong desire by food service professionals for digital forms of communication.

The top priorities were:

- Websites including downloadable fact sheets and tools (recipe converters)
- Digital newsletters

There was a strong preference for the content to be tailored for the food service market (rather than for consumers) and moreover applicable to the various segments of the market.

For example those in the airline catering sector are interested in specific information related to scaled up pre-prepared meals, whereas a local pizza parlour is interested in aspects related to fast food.

There was some concern raised about the name of the current mushroom industry website – mushroomchef - as it implied that it was targeting only a limited slice of the total market and did not resonate with other food service professionals such as purchasing managers, value-adders or caterers.

Addressing these issues formed a component of the brief for a new website concept, as well reference points when benchmarking what other food industries are doing to promote in food service via digital modes.

The summary of general requirements was to develop a site specifically for food service that addressed:

- |  |                  |
|--|------------------|
| • Health benefits                          | • Varieties      |
| • Usage                                    | • Cost per serve |
| • Recipes, up scaling to commercial levels | • Storage        |
| • How grown                                | • News           |
| • Safety                                   | • Ideas          |
| • Country of origin                        |                  |

*Review of Food Industry Communication to Food Service*

Desk research was used to scan for examples of food industry digital interaction with the food service audience.

The primary focus was on 'generic' fresh produce marketing (industry bodies) from Australia (however overseas examples were also reviewed).

Whilst a number of industries provide information those which best addressed the requirements expressed in Phase 1 include:

[Australian Asparagus Council](http://www.asparagus.com.au) ([www.asparagus.com.au](http://www.asparagus.com.au))

Links - Facebook, Instagram

The asparagus website has a page dedicated to Leading Chefs & Fabulous foodies.

This is an Asparagus branded profile page, which then can link through to the individuals or company website.

Two dedicated pages for chefs with a minimum of information, some health benefits along with basic asparagus facts.

Two page downloadable PDF titled Foodservice Asparagus  
[www.asparagus.com.au/images/uploads/general/AAC\\_Foodservice.pdf](http://www.asparagus.com.au/images/uploads/general/AAC_Foodservice.pdf)

Main health claims:

*Asparagus has abundant nutrition including a range of B group vitamins, vitamin C and potassium.*

*There is emerging research that asparagus has bio-active compounds like antioxidants. Asparagus has no cholesterol, virtually no fat and only 67 kjs (16 Calories) in a serve.*

*A serve of asparagus (75 g or 3 spears) provides 1.7g of fibre, about 7% of our daily needs.*

[www.asparagus.com.au/index.php/dining\\_out/meetthechefs/](http://www.asparagus.com.au/index.php/dining_out/meetthechefs/)



[Australian Avocados \(www.avacado.org.au\)](http://www.avacado.org.au)

Links - Facebook, Pinterest, Twitter, You Tube

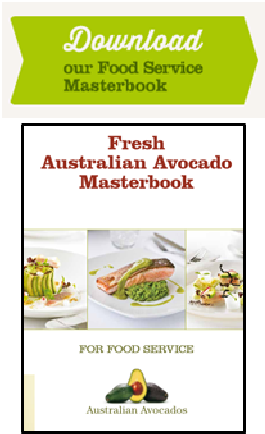
Home page is a dedicated general consumer information covering recipes, basic health, how to's, etc. Has a link to nutritional panel & information.

Small top right hand corner link to professionals divided into:

- Food Professional & Health Professionals

Interestingly not titled chefs or foodservice but professionals, which echoes and reinforces the Phase 1 research, with a desire for a dedicated resource targeted to a wide range of professionals.

The Food Service Professionals section provides a collection of videos, tips, recipes, suggestions, Australian avocado chef master classes and events is specifically developed for food professionals.



Includes 'Food Service Masterbook' downloadable which provides detailed information and recipes applicable to food service applications.

Contains reference to taste, economics, nutrition & health and versatility - again referencing the Phase 1 research.

The commercial model / cost per serve provides a ready reference for a key driver of choice amongst health professionals.



<b>Tray of 23</b>
• Gross weight = 240g per fruit
• Seed and skin = 67g per fruit
• Edible Flesh = 173g per fruit
• Serves = 6 to 8
Total Flesh = 3978g per tray
<b>Tray of 28 (smaller sized fruit)</b>
• Gross weight = 200g per fruit
• Seed & Skin = 70g per fruit
• Edible flesh = 130g per fruit
• Serves = 4 to 5
Total Flesh = 3640g per tray
<b>Cost per plate:</b>
Most chefs consider plate cost when purchasing product. Some useful ways of representing costs include:
• Cost per tray = \$85 - \$35/tray for 23/tray
• Cost per piece of fruit = \$0.87 - \$1.30
• Cost per quarter serve = 22 - 33 cents
• Cost per kilo of edible flesh = \$20/3.9kg (tray) = \$5.13/kg

US Mushroom Council ([www.mushroomsonthemenue.com](http://www.mushroomsonthemenue.com))

Links – Facebook, Pinterest, Twitter

Dedicated site for food professionals targeting increasing ‘menuing’ of mushrooms across the full spectrum of food service segments.

Generic information on:

- Health
- Varieties
- Storage

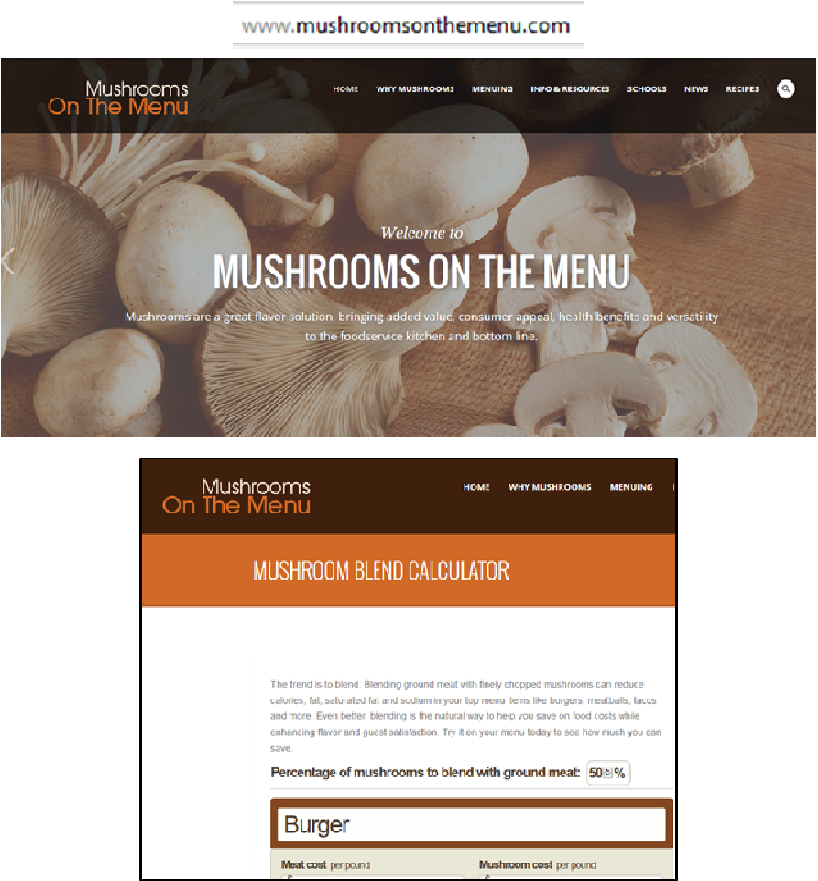
Specific information for various food service segments

- Usage
- Blending
- Better Burger project

Tools include mushroom blend calculator and downloadable fact sheets.

Recipes at various scales included.

Delivers the requirements as outlined for the research in Phase 1.



*Review of Mushroom Chef*

Australian Mushroom Growers ([www.mushroomchef.com.au](http://www.mushroomchef.com.au))

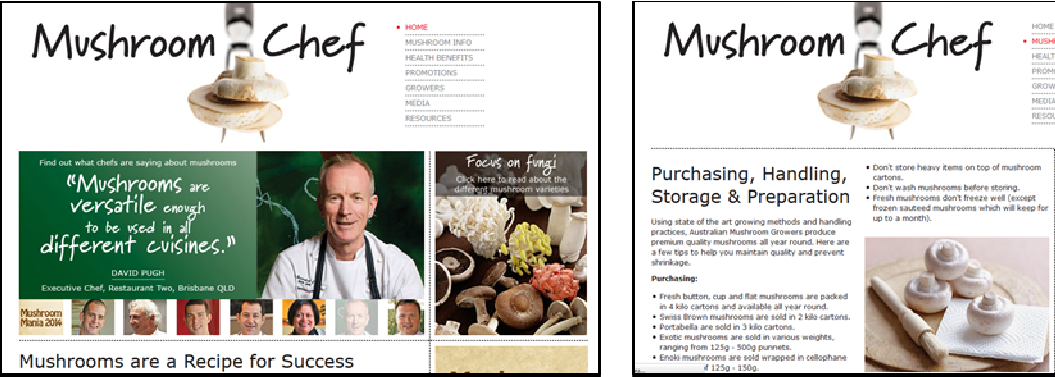
Links - Facebook, Twitter, Instagram

The Mushroom Chef website has been the industry conduit to food service since 2008. The site provides a high level overview of the industry and provides information on storage and handling.

The key feature of the home page is a rotating carousel of chefs promoting how they use mushrooms.

In recent years it has been the primary promotional vehicle for restaurants, clubs, cafes and take-away operators to connect with Mushroom Mania – the industry food service promotion held in July each year.

The graphics and imagery as well as the navigation structure is dated – reflecting its age. There is some reference to the Power of Mushrooms consumer branding. Much of the content needs refreshing with some aspects out of date or no longer relevant.



When assessed against best practice the site is in clear need of improvement.

Multi-segment f.s. audience	<b>X</b>	
Specific content by segment	<b>X</b>	
Mobile responsive design	<b>X</b>	
Health information		<b>Limited</b>
Varietal information		<b>✓</b>
Storage information		<b>✓</b>
Usage information	<b>V. Limited</b>	
Commerical / Cost per serve	<b>X</b>	
Reciepes, scaled up	<b>X</b>	
Growe info / provenance	<b>V. Limited</b>	
News / Updates	<b>X</b>	
Research / consumer info		<b>Limited</b>
Case studies / business case	<b>X</b>	
Tools (scale up receipes)	<b>X</b>	
Downloadable fact sheets	<b>X</b>	
F.S. newsletter signup	<b>X</b>	

#### *Future Direction and Initial Concept Development*

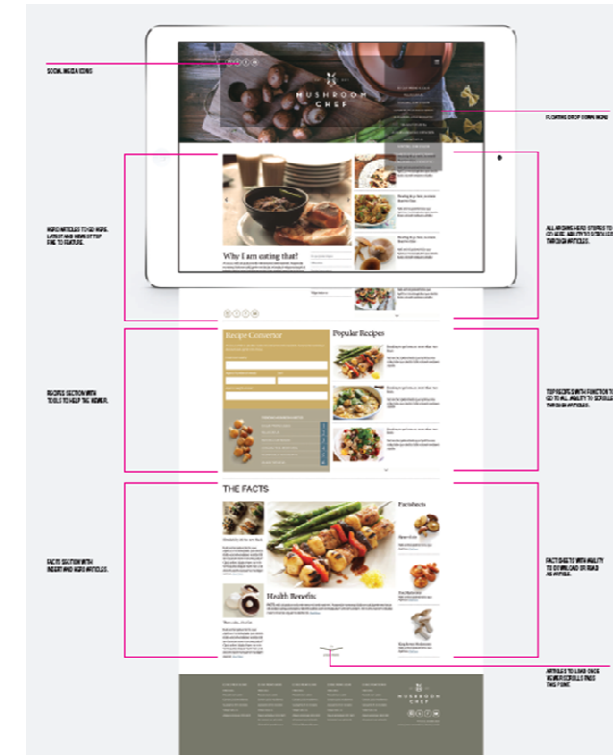
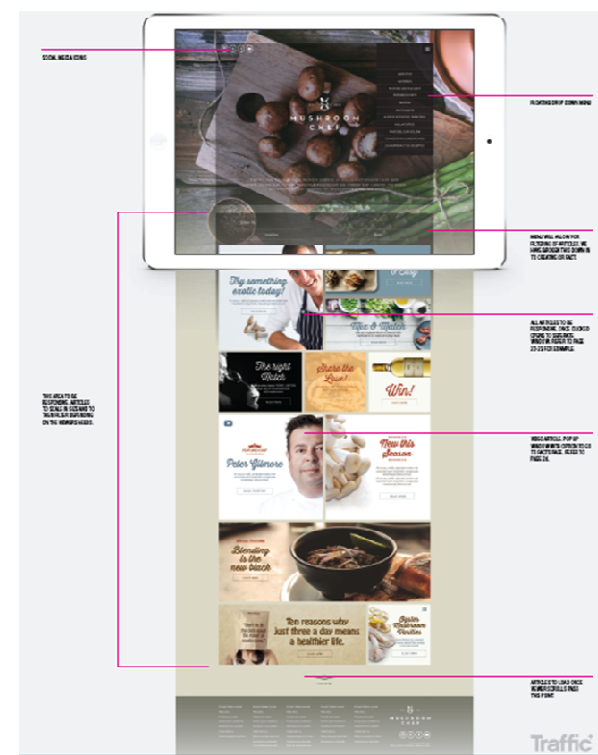
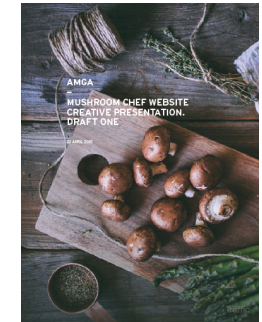
The findings from the Phase 1 feedback, Desk research and assessment of the current mushroomchef site was compiled.

In February 2015, a brief was issued to Traffic, a Melbourne based communication agency to respond to that included the key direction, segmentation and content needs (including the compiled findings).

A series of briefing meetings were conducted to workshop the requirements, issues and solutions.

In early April 2015 Traffic delivered an initial MUSHROOM CHEF WEBSITE CREATIVE PRESENTATION.

The 32 page document provided a series of mood boards and associated imagery, along with 3 options on graphic treatment for the mushroom chef logo.



*Concept Development – Strategy & Implementation*

The project team reviewed the initial concepts and provided feedback.

Traffic refined a number of elements to address issues raised.

Once agreed, Traffic moved forward with further developing the preferred concept including developing the communication strategy, elements and site design.

The output was to be a more fully resolved concept website that the project team could then 'package' and undertake interviews with food service professionals to gather feedback.

In early May, 2015 Traffic delivered a detailed 27 page presentation to the team.

This was workshopped and some slight modifications made.

Extracts from the presentation are detailed.

The full presentation is included in the Appendix.

Current	
DIGITAL EQUITY ASSESSMENT	Current website is outdated in both look and feel and functionality. Digital assets are too generic and don't speak to the target audience at their level. Audience are looking for a partner that value adds to their businesses. Instagram and Twitter accounts are shared with the Power of Mushrooms retail site and not targeted directly at food service industry. Facebook page is around Mushroom Mania and has limited interaction/likes.
WEBSITE	WWW.MUSHROOMCHEF.COM.AU
FACEBOOK	WWW.FACEBOOK.COM/PAGES/MUSHROOM-MANIA/164206276980057 Description: Mushroom mania - a celebration of mushrooms - will be on again in July 2013. To enjoy great mushroom dishes when you dine out check back here and we will post our "finds" for you to enjoy. Likes: 322
TWITTER	WWW.TWITTER.COM/MIGHTY_MUSHROOM Description: Keeping things nice and mushroomy - linking good health and the enjoyment of good food. It is all about the mushrooms. Followers: 1380

Communication	
REPOSITION MUSHROOM CHEF	<ul style="list-style-type: none"><li>• Redesign the Mushroom Chef website to be more compelling to food service professionals.</li><li>• Create awareness &amp; preference for the Mushroom Chef website as a point of reference for key decision makers in the purchase of ingredients and the design of menus via engagement through all digital assets.</li><li>• Encourage the target audience to extend their visitation and interaction with the Mushroom Chef digital assets leading to increased and repeat purchase and use of mushrooms amongst the target audience.</li></ul>
THE MUSHROOM CHEF DIGITAL ASSETS WILL EMBRACE THESE FACTORS AND SEEK TO...	<ul style="list-style-type: none"><li>• Educate the food service community about the usage, versatility and nutritional value of mushrooms.</li><li>• Inform the purchaser of the cost effectiveness in relation to benefits sought.</li><li>• Inspire the menu creator with recipes, particularly for large scale preparation.</li><li>• Speak to food service professionals at their level forming a partnership to value add to their business.</li></ul>

The core message

USE MORE MUSHROOMS MORE FREQUENTLY IN THE MEALS YOU PREPARE BECAUSE THEY ARE:

- Nutritious
- Delicious
- Good Value

Target segments

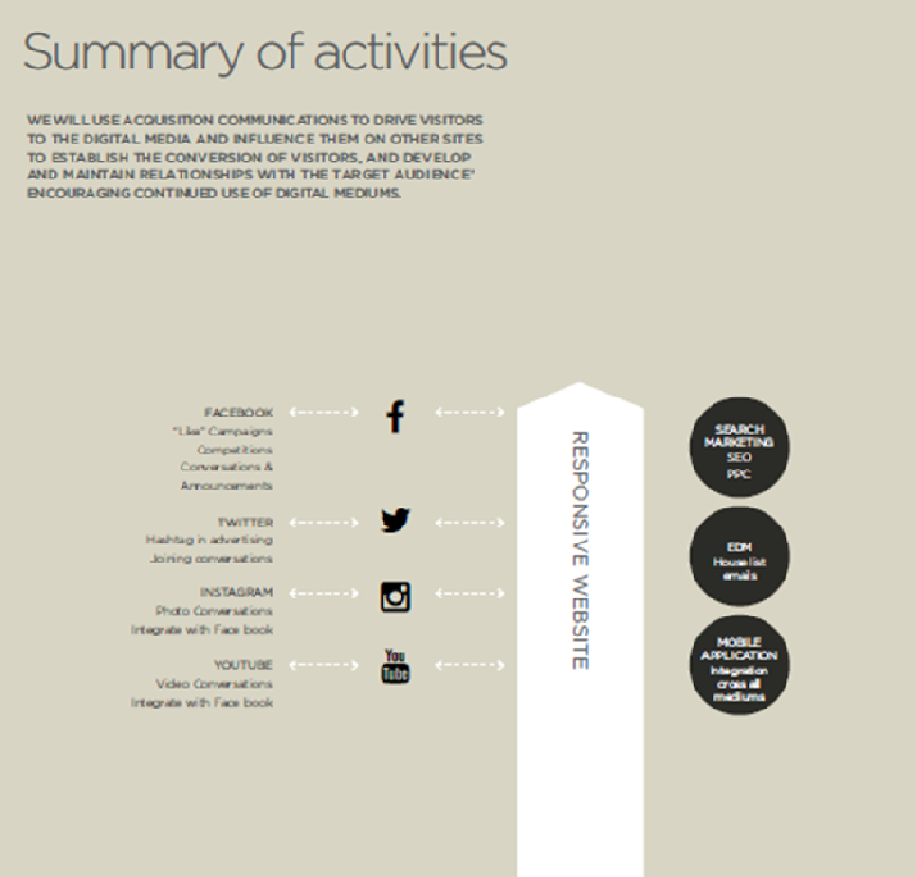
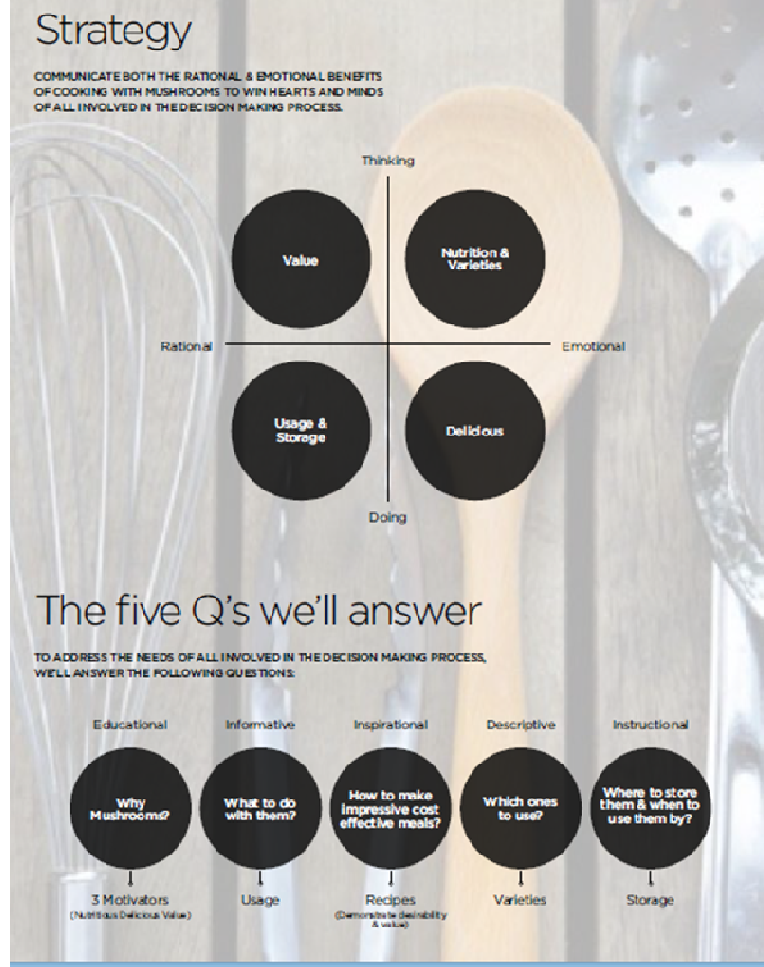
WE'LL TARGET A RANGE OF COMMERCIAL AND INSTITUTIONAL SEGMENTS

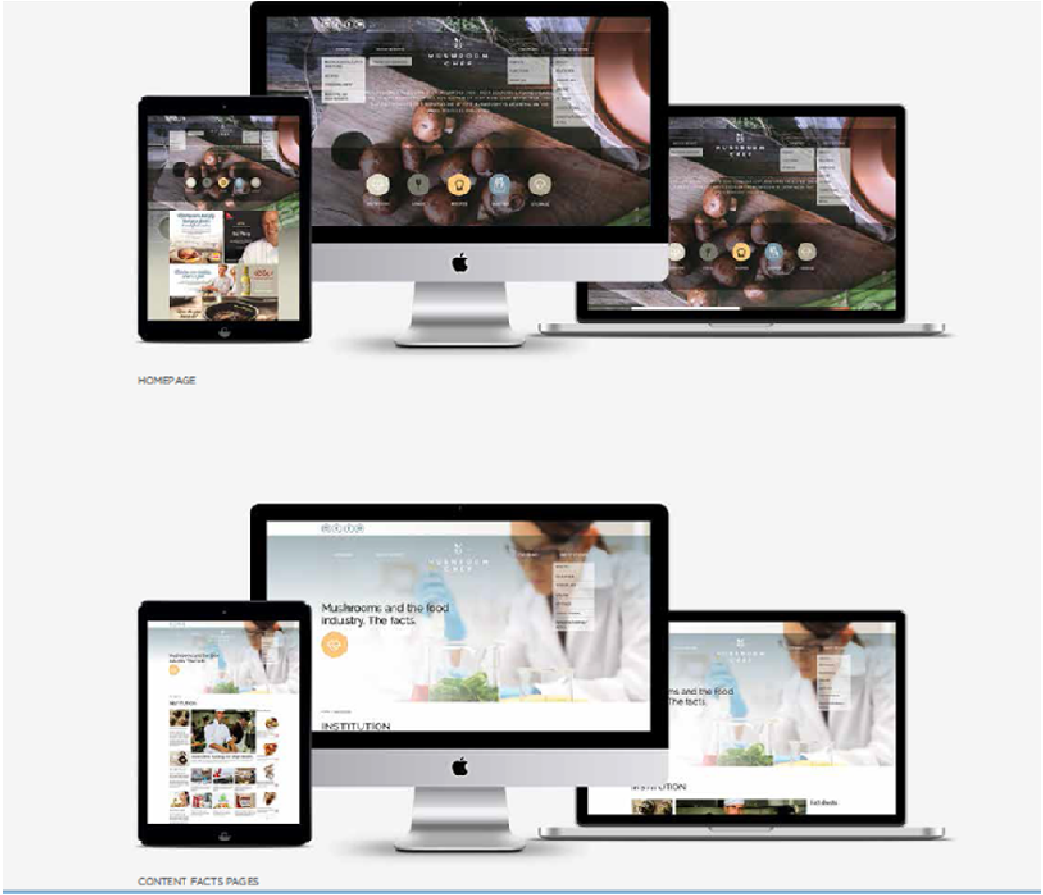
Dining Restaurants, hotels & pubs	Quick Service Fast food & cafes	Public Events Sporting, attractions, festivals	Private Catering Weddings & parties, exhibitions
Institutional Health, education, workplace, correctional	Defence Corporate Government	Airline Flight Lounge	Pre-Made/Packaged Supermarket, Manufacturers, Home delivery

Within the organisation, there are a number of key people to address

THE KEY PERSONNEL RESPONSIBLE FOR PURCHASING, INFLUENCING AND DECISION MAKING IN THE ORDERING PROCESS INCLUDE:

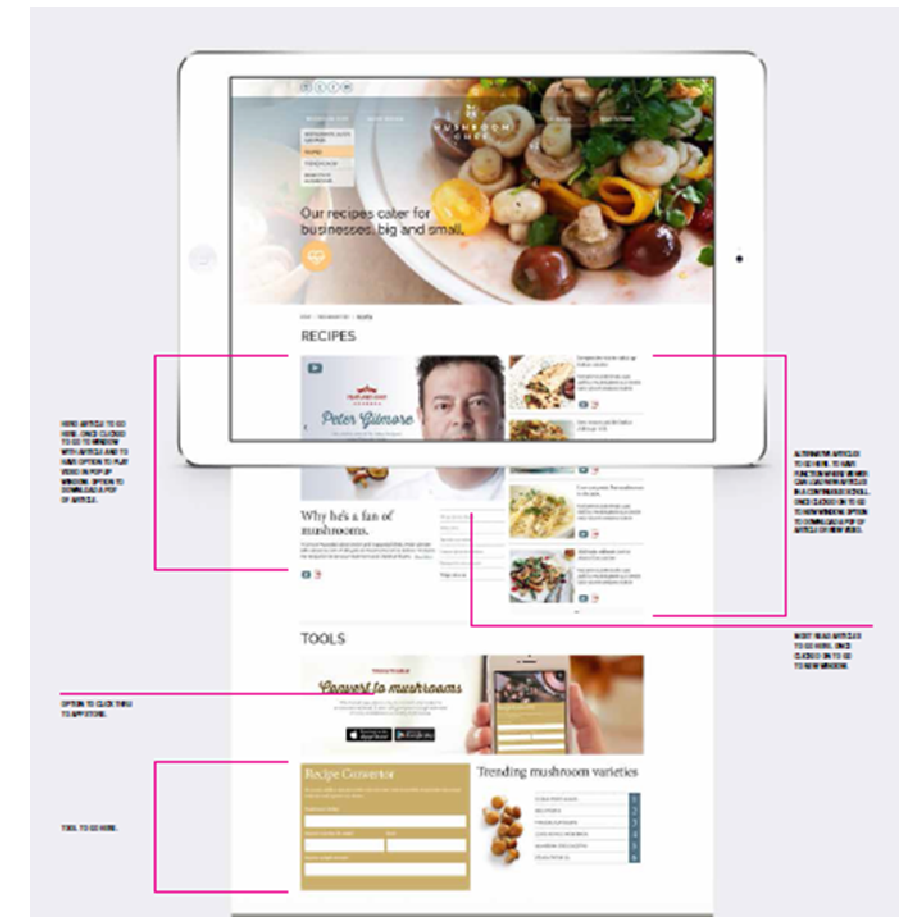
Business Owners Usually sole proprietor	Chefs Onsite or pre-prepared	Consulting Chefs Plan menus in line with trends
Commercial Managers Manage profitability	Nutritionists Health focused	Operational Managers Day to day management











### *Feedback Process*

The overall strategy and concept website were packaged into a presentation and then individual interviews were conducted with the original participants in the Phase 1 research

Peter Fischer - Southern Health, Mike Murray - Prestige Foods and Marcus Werner - Delaware North.

### *Feedback Received*

The overall response to the concept was very positive with the imagery, mood, positioning, layout and navigation all well received although there were some suggestions regarding specific content (which was only a draft) on some pages.

Addressing each participant from the perspective of their food service segment, the following feedback was received:

### *Recap Review of current Mushroom Chef*

- All agreed that the digital assets currently managed by the industry, (POM, Mushroom Chef, Twitter, Facebook and Instagram) are not relevant to them and their culinary / planning needs.
- Agreement that the mushroomchef website needs to be more compelling to food service professionals.
- Become a key point of reference for key decision makers in the purchase of ingredients, product knowledge, sustainability and food safety.
- Educate the food service community about usage versatility & nutritional value of mushrooms. Create unique resources (e.g. targeted recipe ideas, relevant global food trends, unique mushroom facts)
- Core Messages - Nutritious - Delicious - Good Value – Unique/Creative Ingredient

### *Review of new concept Mushroom Chef*

- It was unanimously agreed the rustic, natural, moody feel that appears throughout is perfect positioning for the website.
- The introduction covers what each of the participants, who work in very varied industries would be looking for.
- Ability to deep dive for specific information across the target segments was seen as a real improvement and positive.

- The proposed target segments breakdown - Dining, FCD/QSR, Public Events, Private Catering, Institutional, Defence, Airline (Lounge and in flight Catering and Pre-made /Packaged) were seen to be appropriate and the most relevant segments.

Key Audiences to address:

- Business Owners ✓
- Chefs ✓
- Consulting chefs?
- Commercial Managers ✓
- Nutritionists / Dieticians ✓
- Operational Managers ✓

Agreed with this breakdown although the question was asked, why is there a distinction between Chefs and Consulting Chefs? Both do the same thing, being menu development – suggest to incorporate both under Chefs.

- Strategy - The graphic *The Five Questions We Will Answer* communicating the rational and emotional benefits of cooking with mushrooms is good and relevant.
- Educational – Why Mushrooms? ✓
- Informative – What to do with them? ✓
- Inspirational – How to make impressive cost effective meals? ✓
- Descriptive – Which ones to use? ✓
- Instructional – Where to store them and when to use them by. ✓

Strong support that covering these topics is highly relevant

- Icons - more work needs to be directed toward resolving effective easily recognised icon usage.

### *Individual Feedback*

Peter Fischer – Southern Health

“Health and nutrition are critically important aspects of food and meal preparation for this institutional body and the Mushroom Chef website would be integral to supplying detailed nutritional information for me as well as the on site nutritionist, and reporting staff”

Cost is also an important factor and while they currently produce a weekly mushroom soup, (in batches of 2000) it is the most expensive soup they produce. Ways to minimise cost would be encouraged.

The other aspect that would definitely be of interest is new recipe development and ideas.”

Mike Murray – Prestige Foods

“Love the imagery and the whole feel of the site. It really conveys the mushroom positioning, flavour and nutrition.”

He liked the navigation but agreed with Peter Fisher that once we get into the actual site it further work on navigation would improve the overall user experience.

Suggested have a separate menu item / category for manufacturing of mushroom product i.e. stock, essence, other value-added.

Also that the site incorporate a reference to Lite N Easy. Mike can introduce the Industry to the right people and is sure they would cooperate in incorporating more mushroom based dishes.”

Marcus Werner – Delaware North

“My initial thoughts are that it looks great, I love the imagery and the photography style”.

The front cover of the presentation was especially relevant from his perspective. The natural string, the brown mushrooms, the wood, all conveyed a natural feeling to him, which is in tune with his food philosophy. They want a sustainable menu, using natural and locally sourced ingredients, healthy and modern cuisine with old fashioned values.

Interestingly when asked about where he sourced his mushrooms, both agaricus and exotics, he didn’t know - they simply order through their wholesaler. Also he isn’t sure of the hygiene of mushrooms as they are grown in compost, are pesticides or similar used, are they organic?.

They do have nutritionist on site and for them to be able to access health and dietary information is critical.

So, importantly for him is an information page or pages detailing these facts, if he is buying exotics are they imported or local? How are mushrooms treated, etc

He is also interested in recipes where mushrooms are treated as the hero rather than a side - main dish ideas, not the norm.

Another interesting point he made is that chefs are notoriously lazy!

A website that is difficult to navigate or has numerous clicks to get the information they require will soon be dismissed as hard to use.

Marcus who suggested that chefs, whether catering (not a term he likes or uses) or in a restaurant, still produce individual dishes for consumption."

### *Outcomes*

As at the conclusion of the Project stage a clear strategy and platform for the redevelopment of the mushroom industry food service digital assets has been developed.

Feedback to the concept website from industry professionals will feed into enhancements for any future build of the proposed concept.

A fully specified and costed proposal to execute the strategy and develop the future mushroom chef has been provided.

Any future development will require resourcing by the Industry to develop tailored content in line with identified requirements as well as food service specific recipes

### **Project 3 – Assessing Opportunities for fresh mushroom Value Adding in Food Service / Manufacturing**

#### *Project Selection Rationale*

- Product innovation in value-added mushroom formats (IQF, stock, powder / essence) is successful in global markets. Potential for development of domestic capability.
- Processing / value-adding provides a market for lower quality / waste mushrooms. Products developed may have domestic and export applications.
- Phase 1 identified a manufacturer with capability and interest (as well as primary work completed) on development of mushroom stock. Also interested in assessing powdering / essence.
- Phase 1 stage identified interest in various Vitamin D products – fresh / powder / essence form - product format availability in food service may provide a sustainable volume opportunity for Vitamin D mushrooms in sectors with a high focus on health.

#### *Objectives*

- Develop a commercial trial of fresh mushroom stock.
- Understand the financial / commercial model associated with mushroom supply chain and manufacturer.
- Launch the stock product into the Australian food service (and retail) market and gather feedback as to its uptake.
- Initiate feasibility studies and trials of mushroom powder (and potentially Vitamin D enhanced) / and or essence.

#### *Approach*

- Provide information and encouragement to identified manufacturer to pursue commercialisation of mushroom stock.
- Provide information, encouragement and support to identified manufacturer to launch mushroom stock into the market (food service and retail formats).
- Source samples of mushroom powder / essence as reference.

- Provide information and encouragement to identified manufacturer to pursue commercialisation of mushroom powder and/or essence.

#### *Overview*

- During Phase 1 of the project, a Melbourne based food manufacturer / food service supplier named Prestige Foods participated in the interview and feedback stage.
- It was discovered that the business was in the early stages of trailing a fresh mushroom based stock product.

Further discussions with the CEO highlighted an interest in exploring powdered and extracted mushroom products similar to those available in food service markets in North America and Europe.

- Prestige is a leading exporter of food, wine, agricultural and hospitality products from Australia and New Zealand to to international five-star hotels and resorts in Sri Lanka, Bangladesh, Pakistan, Dubai, Singapore, Hong Kong, Indonesia, the Seychelles, and the Maldives - which is currently their largest market.
- They have operated for over 25 years and have a state-of-the-art stock manufacturing plant which continues to be upgraded to ensure the latest processing and packaging techniques are available.
- Prestige is the largest supplier of natural stocks and sauces to the food service and food manufacturing industry in Australia and also offers a contract manufacturing service for many well-known consumer brands. They hold one of the highest food safety standards in the industry, FSSC 22000.
- The focus of manufacturing is on:
  - Stocks and sauces
  - Soups
  - Ready-to-eat meals
- The company also produces Prestige-branded stocks which are sold throughout Australia and internationally.

#### *Method*

- The project team provided a variety of advice, encouragement and information to assist Prestige finalise the mushroom stock trials and

move to a commercial product.

- In parallel the project team assisted in clarifying the potential for mushroom powdered products (including Vitamin D enhanced).

#### *Product Rationale*

Prestige's market experience indicated that the vegetarian/vegan/flexitarian market was growing as more Australians look to reduce the amount of meat in their diet.

Prestige believed that a more flavor rich alternative to vegetable stock would have strong appeal in the food service and retail markets.

The umami characteristics of mushrooms, along with the underlying health benefits was seen to provide a great flavor platform. Furthermore no natural fresh mushroom stock was available in the Australian marketplace, providing the potential of a first to market advantage.

#### *Product Development and Trial*

The product concept was to use the stems and reject fresh mushrooms from growers and process them into stock at their factory in Braeside.

For the trial Prestige worked with both two Victorian based mushroom growers to source the reject mushrooms required to test the process and the final product.

Over a series of months from mid-2014 they managed to develop an extract and a stock with very favourable results.

The stock in particular was seen as an excellent product with in-market testing and feedback excellent from potential food service and retail customers.

Whilst there was some enthusiasm from the growers Prestige was unsuccessful in reaching an ongoing commercial relationship that could deliver the required quantities at a viable cost.

By August 2014 the project had stalled. Prestige was unable to find a sustainable source of supply to satisfy the business case to move to commercial launch.

#### *Sourcing of Inputs*

Prestige approached the project team for advice in relation to establishing a long term supply chain in September 2014.

As a first stage, a meeting was held where Prestige outlined the commercial requirements for the product including:

- Regular, reliable supply from Victorian growers (proximity to manufacturing plant)
- Quality & handling requirements
- Low cost, easy logistics model
- Target costs

The overall approach was to provide a win for the grower and a win for Prestige, both sharing in the success as volume grew.

Based on the requirements the project team provided introductions to growers.

After various meetings and negotiations conducted by Prestige, it was able to strike a supply agreement with a Victorian mushroom grower that satisfied the commercial requirements.

Trials with the supplied product proved successful and Prestige geared up to move to a commercial launch.

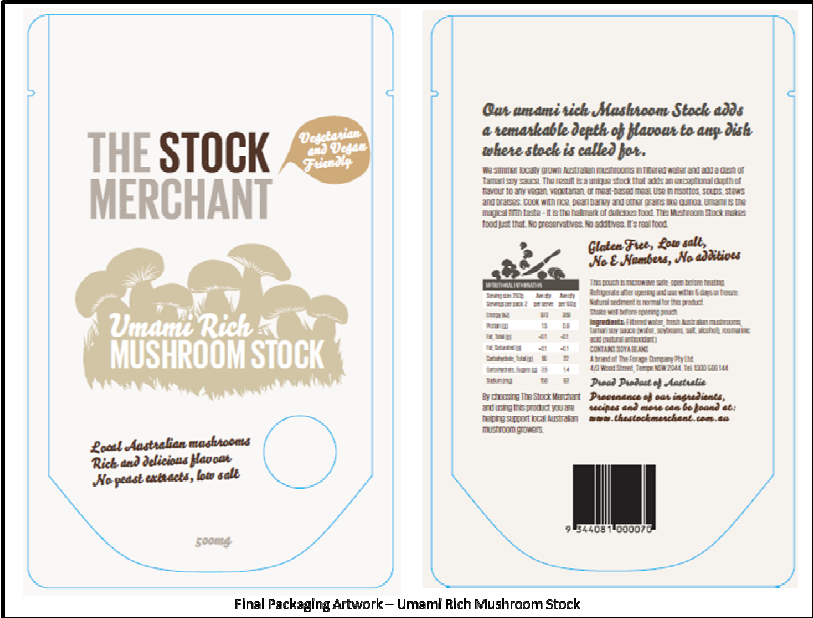
Showing faith in the potential of the product Prestige invested in new equipment including a large volume processing kettle.

*Retail Packaging Review*

One of Prestige’s contract manufacturing clients – The Stock Merchant showed interest in adding the mushroom stock to its existing line of natural stocks.

Sydney based Stock Merchant sells its retail stock products to supermarkets, food stores and greengrocers and has been highly successful in growing its volume and footprint.

The project team was asked to review packaging concepts – in particular the visual and written references to mushrooms to ensure accuracy and maximise the relevance / appeal of on-pack communication.



Final Packaging Artwork – Umami Rich Mushroom Stock

The project team provided multiple rounds of feedback to Prestige/Stock Merchant and its graphic design team in relation to its depiction of mushrooms, references to Australian grown and other suggestions to enhance the mushroom benefit statements.

*Commercial Product Launch*

Retail

In December 2014 the Stock Merchant branded retail mushroom stock product launched.

Pricing was aligned to that of Chicken or Beef stock which maximised sales potential.

Initial distribution was Victoria only with Leo's, Toscano's and about 30 other independent retailers - greengrocers, IGAs and butchers coming on board.

In January 2015, full national rollout commenced.

Based on current sales rates estimated volume of input mushrooms for year 1 may reach 30,000 kilos.

Feedback on performance is very positive with a strengthening trend and distribution footprint increasing.

As at end February 2015 there was no stock on hand at Prestige as it was selling as quickly as it could be produced. The Prestige factory foreman commented that “they have struck gold and the product is a winner”.

There may be a future requirement to source a second grower to lift supply to supplement increased future production.



Free Range Chicken

Free Range Beef

Traditional Vegetable

Sustainable Crab

Master Stock

Mushroom Stock

Old Fashioned Gravy

Red Wine Jus

THE STOCK MERCHANT

THE STOCK MERCHANT

THE STOCK MERCHANT

THE STOCK MERCHANT

THE STOCK MERCHANT

THE STOCK MERCHANT

THE STOCK MERCHANT

THE STOCK MERCHANT

### Umami Rich Mushroom Stock

***Our umami rich Mushroom Stock adds a remarkable depth of flavour to any dish where stock is called for.***

We simmer locally grown Australian mushrooms in filtered water and add a dash of Tamari soy sauce. The result is a unique stock that adds an exceptional depth of flavour to any vegan, vegetarian, or meat-based meal. Use in risottos, soups, stews and braises. Cook with rice, pearl barley and other grains like quinoa. Umami is the magical fifth flavour - it is the hallmark of delicious food. This Mushroom Stock makes food just that. No preservatives. No additives. It's real food.

Gluten free, low salt.

**Ingredients:** Filtered water, fresh Australian mushrooms, tamari soy sauce (water, soybeans, salt, alcohol), rosmarinic acid (natural antioxidant)

### Food Service

In Q2 2015 Prestige Foods launched a Food Service version of the mushroom stock.

The product is bulk packaged and available in 3 sizes.

The launch of this product taps into product requirements for certain food service operators identified in Phase 1 of the project.


Besides the Australian market, the product will be exported to Asia and other countries.



PRODUCT INFORMATION SHEET

## PREMIUM MUSHROOM STOCK

*This remarkably flavoursome vegetarian & vegan-friendly stock is a ready-to-use flavouring powerhouse, which will transform your dishes by adding the mysterious fifth taste, "umami"*



PRESTIGE FOODS STOCKS AND SAUCES  
*The foundation and finish to all great meals*

**Ingredients**  
Filtered water, fresh mushroom, tamari soy sauce (water, soybeans, salt, alcohol), rosmarinic acid (natural antioxidant)

PREMIUM MUSHROOM STOCK	
Code	PR-MSH 2kg PR-MSH 5kg PR-MSH 1kg
Size	2kg frozen 5kg frozen 1kg shelf stable
Allergens	Soya beans
Shelf Life	1.5 years ambient 2 years frozen

Recognition of the fifth taste, umami has legged thousands of years behind the other previous four known tastes, salt, sweet, sour and bitter. However, now that it has been identified, chefs around the world are keenly seeking to use this flavour in their dishes and to add an extra dimension to the flavour layers of their creations.

Umami is tricky to define but can be broadly appreciated by the term "delicious". Umami-rich building blocks such as mushrooms and pure soy sauce are used in the recipe of this stock to give a concentrated hit of delicious flavour to any dish it is used in. It works particularly well with risottos, soups and slow-cooked or braised meat dishes. It can be used in place of water when cooking grains or rice and to give some serious flavouring to otherwise bland ingredients such as tofu. Needless to say it can also be used to provide a point of difference or to highlight vegetarian or vegan dishes.

As with all other Prestige Foods' products, our Premium Mushroom Stock does not rely on artificial ingredients or additives in order to make this a truly versatile natural flavour enhancer.

*For all enquiries, please contact your distributor or:*  
[www.prestigefoodsmanufacturing.com.au](http://www.prestigefoodsmanufacturing.com.au)  
Telephone: \*61 3 8698 4100  
Facsimile: \*61 3 8698 4199  
Email: [pfm@prestigefoods.com.au](mailto:pfm@prestigefoods.com.au)  
Mobile/Cell: \*61 418 390 766

### *Powder / Essence*

The project team provided information about mushroom powder / essence in food service markets globally. It also highlighted the Vitamin D powder being produced in the North American market.

Prestige understood the potential and believed that it could produce similar products.

The project team used international contacts and networks to secure samples of product from Scelta Mushrooms in the Netherlands.

Initially Prestige intended to co-produce mushroom powder with Ballantyne using a spray drying technique.

However, on further investigation it was decided to produce in house. To that end in February 2015, Prestige purchased a Tall Form rotary atomizer and spray nozzle to produce the powder.

The trial will commence in September 2015.

In addition, they are considering installing UV lighting to convert the mushrooms to vitamin D enhanced.

Failing this they would be looking at a supplier to provide vitamin D mushrooms (such as Costa Exchange / White Prince).

The project team has identified high potential food service operators in Phase 1 who would be very interesting in trialling powdered product – both traditional and Vitamin D. Contacts for these will be provided to Prestige once the product trials are complete.



### Mushroom **flavourings** in concentrate and extract powder

Our production partner Scelta Umami in Belfeld manufactures mushroom flavourings in concentrate and extract powder rich in **umami** using our Waste2Taste process. We use mushroom parts and residues from mushroom processing which normally go to waste – such as mushroom stems and cooking juice - to produce concentrate in liquid form. This concentrate is also spray-dried into mushroom extract powder form.

1kg **concentrated taste** equals 25kg fresh taste!

Our mushroom concentrate serves as a base for soups and sauces. It can also be used as a flavour enhancer for a variety of dishes without imparting a pronounced mushroom flavour. It is a 100% natural product with the potential to replace monosodium glutamate (MSG) and reduce the use of salt. The concentrate contains 95% of the healthy vitamins and minerals from the mushroom. Tasty and healthy, in other words.



### *Outcomes*

As at the conclusion of the Project stage both the retail and food service mushroom stocks were in the market, with growing distribution and strong sales. The stock has also been successfully exported into the Asian market.

What was once a reject product with little worth to growers has been transformed into a highly value-added product that provides an income stream to the grower and an incremental use for Australian fresh mushrooms that have domestic and export applications.

The mushroom stock has been nominated for the 2015 Food Magazine Awards including Best New Product and Best Innovation.



Prestige will commence trial production of mushroom powder in September 2015. It is considering installing UV lighting to convert the mushrooms to vitamin D enhanced in house.

Prestige has offered to provide introductions for the Industry to its food service networks if it wishes to pursue direct engagement was further high quantum organisations (linkage to Project 1).

## Outcomes

The key outcome of the project has been a substantial increase in the depth of knowledge about the structure and operations of the Australian food service market, and the identification of opportunities and initiatives that could increase the use of fresh mushrooms in the sector.

This insight can be used as an input into 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 were provided to individual levy payers upon request after the conference.

A presentation incorporating the three individual reports of the project is available for download on the mushroom industry levy payers website.

## Evaluation and Discussion

The project proceeded as planned and met its objectives.

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

- A. The Australian food service industry is a high value sector of the Australian economy, with a total market value exceeding \$A45 billion per annum. It is characterised by enormous diversity in terms of sectors serviced, venue, food type, quality, delivery format and price.

Supporting these operators is an extensive industry supply-chain comprising food producers, processors, wholesalers, distributors and value-adders that provide inputs into the final product.

- B. Mushrooms appear on the menu in settings across most segments of the Australian Food Service market.

They are most frequently seen in breakfast and dinner meal occasions.

The frequency / breadth of mushrooms used varies widely by dining style, cuisine type, customer profile and venue audience.

Mushrooms are used in the following ways:

- Primary ingredient – Field mushrooms with...
- Feature ingredient – Mushroom risotto,
- Accompaniment ingredient – ...with sautéed mushrooms
- Inclusion ingredient - ...made with mushroom stock...

Mapping undertaken for the industry by FreshLogic in 2011 and updated in 2014 indicates that nearly 30% of industry volume is taken up by food service. This quantification may understate the actual volume flowing to food service as a portion of smaller food service operators often purchase their mushrooms (and other vegetables) from local supermarkets / greengrocers.

C. With reference to engaging High Quantum decision makers in the Food Service Industry (Collaborative Project 1):

1. Be systematic in reviewing high potential opportunities including the following suggested approach:

- Research the marketplace and identify those organisations who:
  - have a high quantum of influence business profile;
  - have a capacity to introduce or increase consumption of mushrooms in their processes.
- Examine their supply chains by desktop research to identify who the current suppliers are;
- Develop a document to background the organisation with a hierarchical chart on access points and approach strategies;
- Identify key decision makers within the organisation responsible for purchasing, influencing and decision making in the ordering process;
- Contact the key decision maker(s) to arrange a meeting and follow the guiding questionnaire (see page 78) to assess what opportunities exist for mushrooms to be included on their menus.
  - Pre-prepare the guiding questionnaire, formatting it to the industry / business being presented to including the key contacts details so they realise it isn't a generic interview but specific to them;
  - Ensure supporting materials and information is available and copies are available to leave behind if requested.

2. Through the interview process gain an understanding of the key issues facing the business, in particular as it relates to how they assess new opportunities.

3. Understand the protracted nature of decision making and the various hurdles that need to be met and be prepared to provide ongoing advice, encouragement and information over an extended period (more than 12 months) without immediate feedback or indication of success.

4. Expect that any trial will most likely not use the final supply chain model and therefore suppliers involved in the trial may not be those that end up getting the business.

D. With reference to exploring Digital Resource Requirements for effective Food Service industry communication (Collaborative Project 2):

1. In line with general societal shifts, digital forms of communication are the preferred mode of communication by food service industry professionals.

2. Given the diversity of the food service sector, there is a need to provide content that speaks to the various audiences that has particular relevance to them.
  - To this end, mushroomchef as the domain name and site name for the mushroom industry food service website does not fit this requirement and will need to be revisited.
3. The process of incorporating feedback from food service industry participants throughout the development of potential digital communication layouts, content and tools is extremely useful to:
  - Understand requirements and preference
  - Gain feedback on the gaps of the existing resources (eg. the mushroomchef site)
  - Validate the concept(s) layouts, content and tools to ensure alignment with requirements and how they address the identified gaps

For example, the feedback by food service industry professionals about the new concept mushroom food service website validated the imagery and general thrust of segmenting the audience for relevance. The general information topic areas were strongly supported.

The learning's and suggestions provide a strong foundation for further development and rollout of a new website for the industry.

E. With reference to assessing Opportunities for fresh mushroom Value Adding in Food Service / Manufacturing (Collaborative Project 3):

1. There are a variety of new food service products that can be developed using fresh mushrooms:
  - These may be finished product:
    - fresh or IQF crumbed, marinated, tempured, coated, etc
  - Or input products:
    - cooking bases, sauces, marinades, stocks, extracts, powders, etc.

Many of these products exist and are successful in global markets.

2. Leveraging these value-added opportunities provides an excellent channel for growers to create markets for 'waste' mushrooms – those that cannot be sold into wholesale or retail markets – such as stalks, blemished, out of specification.

Currently this by-product is at best cost neutral or represents a net cost to growers for disposal.

3. There are numerous food processors in the Australian market that have the capability and competence to undertake product development using mushrooms.

The key is to make them aware of the opportunities and for them to see the commercial applications.

4. Product development timelines can be protracted, with numerous iterations required to meet taste, quality and commercial benchmarks.

To capture further opportunities in the value-added the mushroom industry will need to provide dedicated ongoing resources to identify market gaps and liaise with potential suppliers to provide support, encouragement and information throughout the product development cycle.

F. During the life of the project concerns in China and other Asian markets regarding the safety and integrity of domestic food supplies emerged and have persisted.

Australia is well placed to supply a range of foodstuffs leveraging of Australia's 'clean and green' brand image into those markets.

Key examples of successful export categories into the Asian markets (in particular China) include baby formula, milk powder and vitamins.

Australia's competitive advantage in terms of its food processing capabilities means that value-added / processed mushroom products have significant potential to capitalise on export sales.

Export of fresh mushrooms is unlikely to occur because of the highly relative cost of production, however the clean green positioning of Australia's processed mushroom products can provide a point of difference.

If a market with sufficient size can be identified and quantified then investment in mechanical harvesting of fresh mushrooms may become feasible in Australia which allows the cost of goods for processing to be reduced significantly.

## Recommendations

The Opportunities for Mushrooms in Food Service project provides a detailed insight into the characteristics of the Australian food service market and provides information relevant to individual growers, and the industry as a whole, that can be used to develop strategies and tactics that can enhance the use of fresh mushrooms in the sector.

Given the opportunities described in the project it is recommended that the mushroom industry should increase its focus on promoting mushrooms within the food service sector with a goal of increasing the ongoing use of fresh mushrooms within the sector.

Recommended actions include:

1. The development of a specific Food Service marketing and promotional plan as part of the industry levy funded M&P program.

It should be considerate of addressing two broad target audiences:

- Food industry professionals – those organisations (and individuals) involved in the 'business' of the food service industry
- Consumers – individuals who consume the food / meals created by the 'businesses' in the food service industry

2. Based on the outputs of MU12006, addressing food industry professionals should be the initial focus to build on the outcomes delivered by the Collaborative Projects.

High priority opportunities are to:

- A. Fund dedicated human resources to manage mushroom industry food service promotional and engagement activities.

- Based on the experience gained during the life of the project it is imperative that adequate focused resources are engaged to implement, manage and evolve the development of the mushroom food service activities. It would be expected that the resources would be directly involved in the activities B, C and D detailed below.

The ideal individual(s) would have:

- Strong food service industry experience and contacts;
- Detailed knowledge of the Australian mushroom industry;
- Commercial acumen to identify and engage prospects;
- Sound project management skills to manage multiple concurrent workstreams.

- An allowance of 10-15 hours per week for the resource(s) is recommended as a minimum requirement (based on the learning's from the project).
- B. Develop a plan to focus on sustainable volume opportunities for fresh mushrooms, in particular by engaging with key decision makers in High Quantum of Influence organisations. Immediate targets should include:
- Chain Fast Casual Dining and Quick Service restaurant segments of the Commercial segment;
  - Health Care, Defence, Correctional and Educational segments of the Institutional segment (that have a strong focus on nutrition).
- C. Develop a plan to engage high volume food processors and value-adders to explore the use of fresh mushrooms as inputs, and/or finished products. Immediate targets should include those firms with the capability to develop and distribute:
- Fresh or IQF crumbed, marinated, tempured, coated fresh mushrooms
  - Cooking bases, sauces, marinades, stocks, extracts, powders derived from fresh mushrooms
- D. Develop a new mushroom industry food service professionals ("business") website and associated digital communication elements (such as an e-newsletter).
- The learning's, framework and concept developed as part of the project provides a sound platform to progress;
  - The domain and site name mushroomchef should not be continued and a new broad based name be adopted to reflect the diversity of the sectors in the industry (outside of chefs);
  - Specific food industry content, resources and tools should be developed to address the needs of the various professional audiences.
- E. A new research project should be commissioned to investigate the potential for leveraging the 'clean and green' Australian positioning and identity and quantify potential Asian markets for value-added/processed Australian mushroom products.

## **Acknowledgements**

All project team members and service providers are acknowledged for their thorough and timely provision of the outputs that they were commissioned to provide. In particular, Mr. Stephen Bell of Gusto Styling was instrumental in the collaboration with food industry professionals over the life of the project.

Those individuals and organisations which participated in the Collaborative Projects are recognised for their long term commitment and enthusiasm over an extended period. The overall success of Opportunities for Mushrooms in Food Service project was greatly enhanced by their contribution.

Finally, the numerous food industry professionals who participated in interviews or provided feedback are to be lauded for their support in answering questions and providing information that added value to the project.

# Appendices

## 1. MUSHROOM CHEF WEBSITE CREATIVE PRESENTATION - Traffic (May 2015)



To View file – click the icon >



Final concept\_  
Mushroom Food Sei