Allergen Bureau

informing the food industry

Allergy, Allergens & Allergen Management for the Food Industry

NZMS Scientific – Food Allergen Seminar

2018

Georgina Christensen

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Who is the Allergen Bureau?

- The Allergen Bureau is the **peak industry body** representing food industry allergen management in Australia and New Zealand
- The Allergen Bureau is a **membership based** organisation established to provide food industry with rapid responses to questions about allergen risk management in food ingredients and manufactured foods
- Established 2005, **pre-competitive**, 'not-for-profit', industry volunteer Board

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The Allergen Bureau – Our Vision and Mission

Vision

- The Allergen Bureau is a globally recognised and supported industry organisation promoting best practice food industry allergen management, risk review and consistent labelling to facilitate informed consumer choice

Mission

- To facilitate a globally accepted, consistent, science-based approach to food allergen risk assessment, management and communication that:
  - guides **industry** best practice
  - assists allergen sensitive **consumers** to make informed choices based on label information

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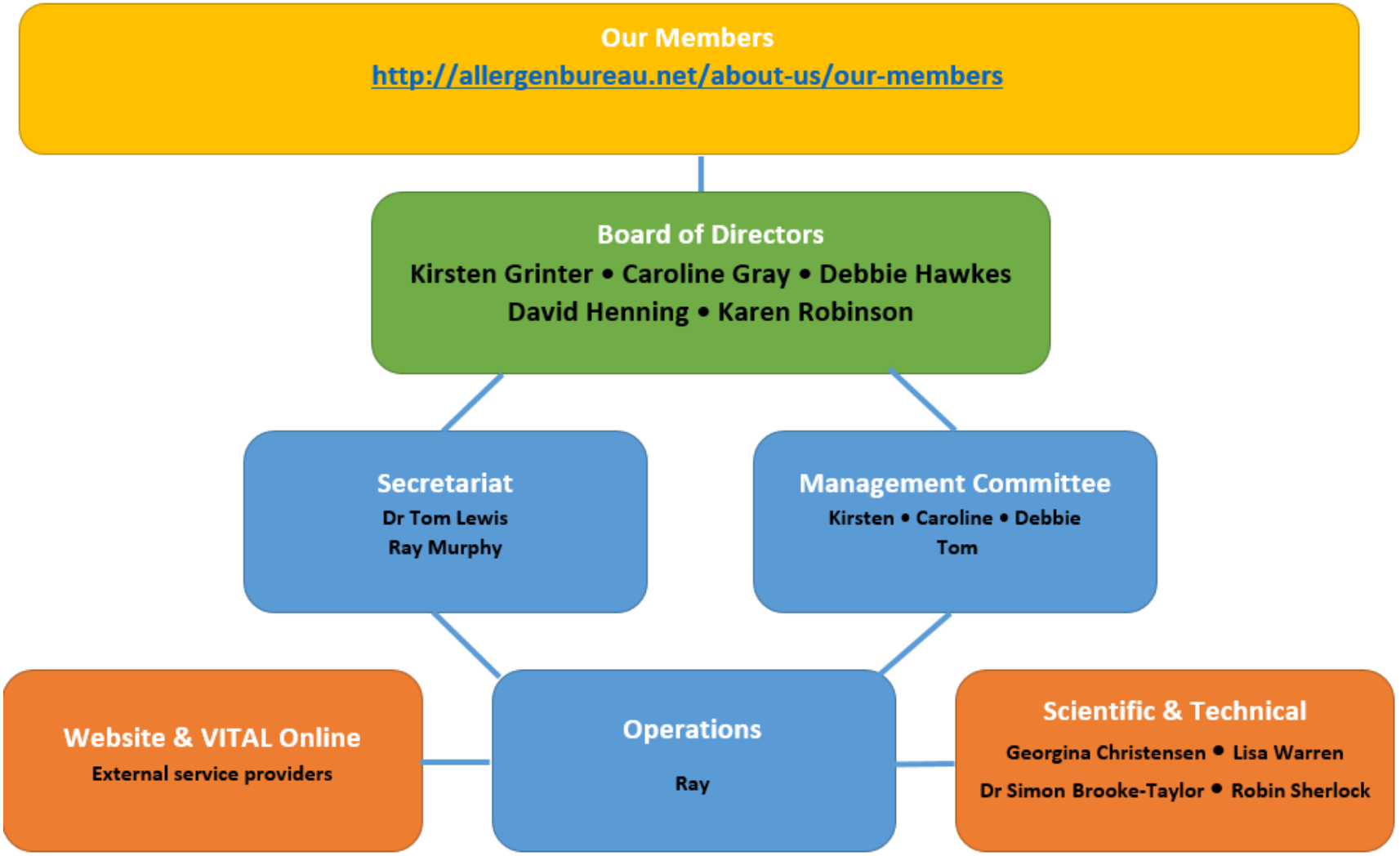
Organisation



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Overview

- Food Allergy
- Allergen Labelling
- The VITAL® Program
- FAQ's to Allergen Bureau Free Helpline (AMPs, Lupin, Analysis, Global Allergens etc)

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Adverse Reactions to Food

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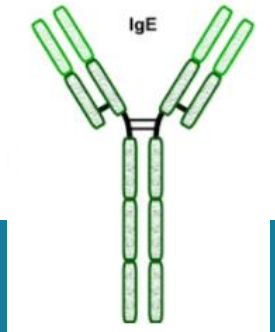
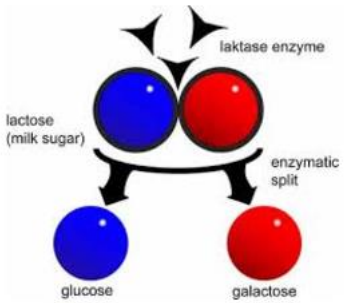
Adverse Reactions to Food

- Immune Mediated
  - IgE Mediated (e.g. **food allergy**)
  - IgE Mediated (e.g. **coeliac disease**)
- Non-immune Mediated
  - Metabolic (e.g. **lactose intolerance**)
  - Other (e.g. **sulphite sensitivity**)





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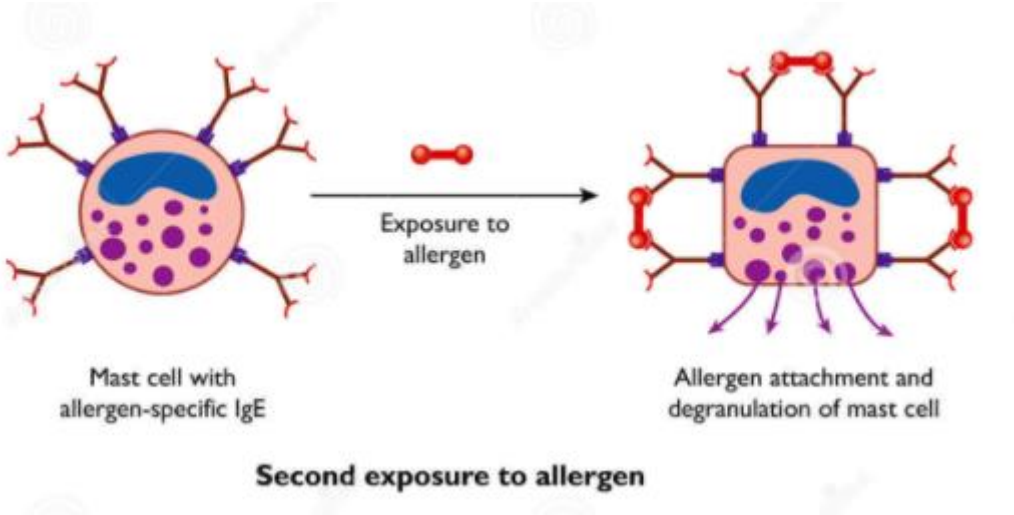
Food allergy

A food allergy is an abnormal response to a food that is triggered by the immune system

The body produces antibodies against the food allergen protein and when it is eaten by the food allergic individual their body will release histamine and other chemicals causing inflammation



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Food allergen

A normally harmless substance that triggers an allergic reaction. Most food allergens are proteins. A food may comprise of one or more allergenic proteins.

For example ~ cow's milk contains allergenic proteins in the whey fraction and different allergenic proteins in the casein fraction. Individuals may be allergic to only one milk protein or more.

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Predominant food allergens

peanuts
tree nuts
soy
milk
egg
fish
crustacea
sesame
lupin
mustard
celery
cereals containing gluten

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The allergic reaction

- **Dermal** – skin breaks out in hives or eczema
- **Gastrointestinal** – nausea, cramps, diarrhoea
- **Respiratory** – struggle for air
- **Circulatory** – blood pressure drops, lose consciousness

Anaphylaxis is an acute allergic reaction ~ in rare cases, multiple organ systems are affected and death can occur in as little as ten minutes

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Some symptoms of an allergic reaction to a food

Urticaria

Atopic Dermatitis

Anaphylaxis

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Coeliac disease

The immune system reacts abnormally to gluten (a protein found in wheat, rye, barley and oats) causing small bowel damage.

Wheat allergy (allergic response to wheat protein) is different to coeliac disease (immune response to gluten proteins)

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Food intolerance

Detrimental reaction to food – not a food allergy. Symptoms are generally less serious than true food allergy and often limited to digestive problems.

Lactose intolerance is an example where a person is intolerant to the lactose carbohydrate in milk which is different to an allergy to milk protein

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Sulphite intolerance

Sulphites are a family of preservatives permitted for use in some food and drinks.(Additives 220-228)

Sulphite intolerance can trigger asthma symptoms in individuals with underlying asthma.

Wheezing is the most common reaction to sulphites.
In very rare cases however, anaphylaxis can occur.

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Impact of food allergy

- there is currently no cure
- sensitivity differs between individuals and depends on type of food, amount ingested and other activities at time of ingestion
- people with food allergy do not know when their next allergic reaction will occur or how severe it will be

Avoidance of the food is the only protection

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Food allergy rates are increasing in Australia and New Zealand

food allergy affects*

- ~ 10% infants (up to 12 months old)
- ~ 4-8% children (up to 5 years)
- ~ 2% adults (approx.)

*ASCIA 2015
www.allergy.org.au

- ~ rapid increase in food allergic disease in last 30 years in mainly the Western world
- ~ 80% of children outgrow milk, egg, soy and wheat allergy by age 5
- ~ individuals allergic to peanuts, tree nuts, sesame or seafood will have this for life

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Why should the food industry manage food allergens?

- protect allergic consumers
- consumers depend on food that is labelled correctly
- food safety necessity
- legal requirement for declaring food allergens
- costly to have non-compliance, allergen issues with consumers, recalls, withdrawals, re-labelling

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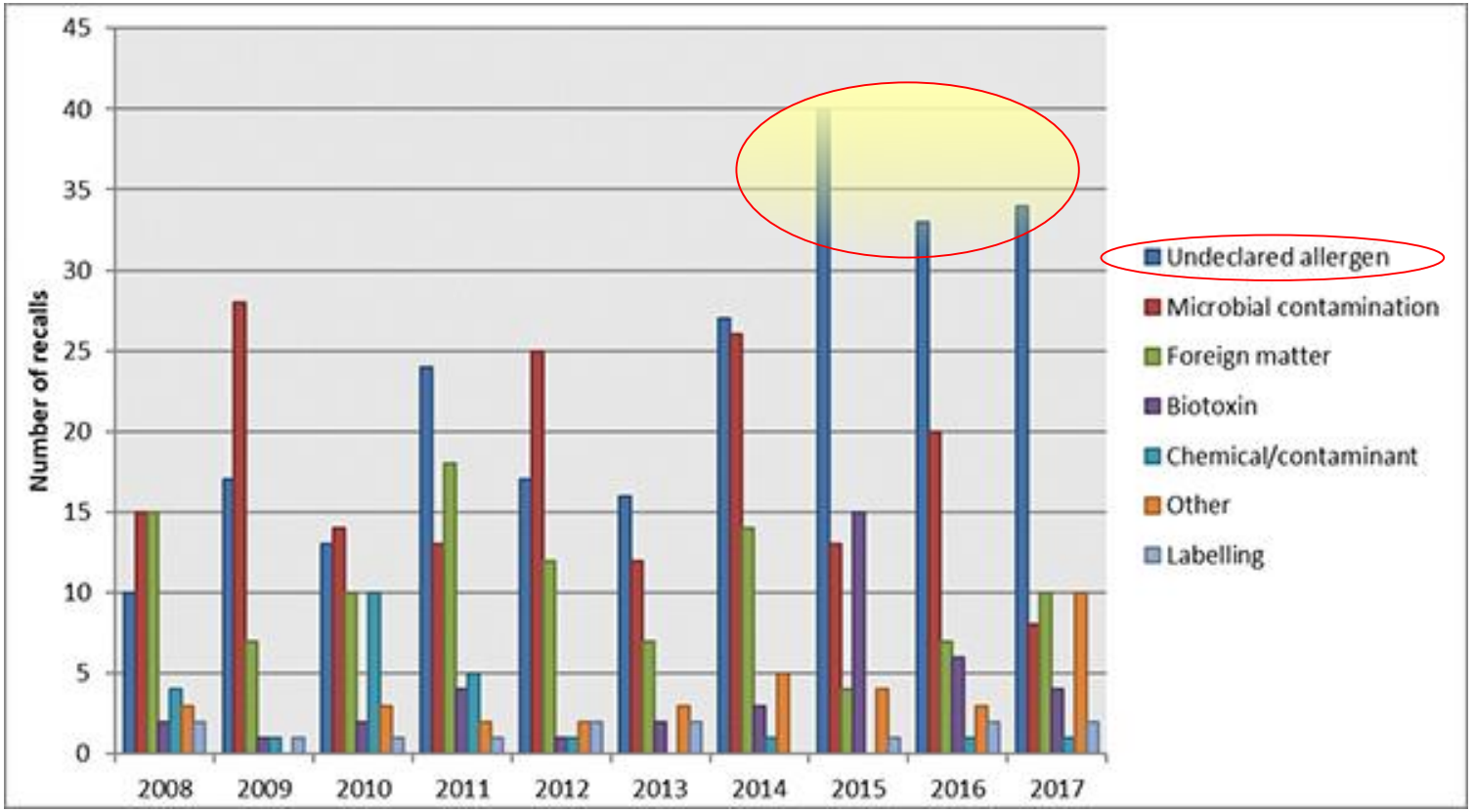
FSANZ Allergen related Recall Stats



Source: http://www.foodstandards.govt.nz/industry/foodrecalls/recallstats/Pages/default.aspx

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Food Allergen Labelling

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Allergen Labelling – Australia/New Zealand

- In 2002 it became a requirement for **mandatory** labelling of certain allergens (gluten, crustacea, egg, fish, milk, tree nuts, sesame seeds, peanuts and soybeans) in the Australia New Zealand Food Standards Code. This covers **intentionally added** allergens only.

- Allergens which may be present **unintentionally** are covered by precautionary labels, such as “May Contain”. These are voluntary declarations.

Precautionary Allergen Statements = “May contain” labels, allergen advisory statements or “trace” statements

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Australia New Zealand Food Standards Code

Section 1.2.3-4 Mandatory declaration of certain foods or substances in food sets out further requirements for declaring these foods or substances if present in a food.

A declaration is required when these foods or substances may be present as:

(a) an ingredient or as an ingredient of a compound ingredient; or

(b) a substance used as a food additive, or an ingredient or component of such a substance; or

(c) a substance or food used as a processing aid, or an ingredient or component of such a substance or food.

Australia New Zealand Food Standards Code

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1.2.3—4 Mandatory declaration of certain foods or substances in food

(1) For the labelling provisions, if any of the following foods or substances is present in a food for sale in a manner listed in subsection (2), a declaration that the food or substance is present is required:

(a) added sulphites in concentrations of 10 mg/kg or more;

(b) any of the following foods, or products of those foods:

(i) cereals containing *gluten, namely, wheat, rye, barley, oats and spelt and their hybridised strains other than:

(A) where these substances are present in beer and spirits; or

(B) glucose syrups that are made from wheat starch and that:

(a) have been subject to a refining process that has removed gluten protein content to the lowest level that is reasonably achievable; and

(b) have a gluten protein content that does not exceed 20 mg/kg; or

(C) alcohol distilled from wheat;

(ii) crustacea;

(iii) egg;

(iv) fish, except for isinglass derived from swim bladders and used as a clarifying agent in beer or wine;

(v) milk, other than alcohol distilled from whey;

(vi) peanuts;

(vii) soybeans other than:

(A) soybean oil that has been degummed, neutralised, bleached and deodorised; or

(B) soybean derivatives that are a tocopherol or a phytosterol;

(viii) sesame seeds;

(ix) tree nuts, other than coconut from the fruit of the palm *Cocos nucifera*;

(x) lupin.

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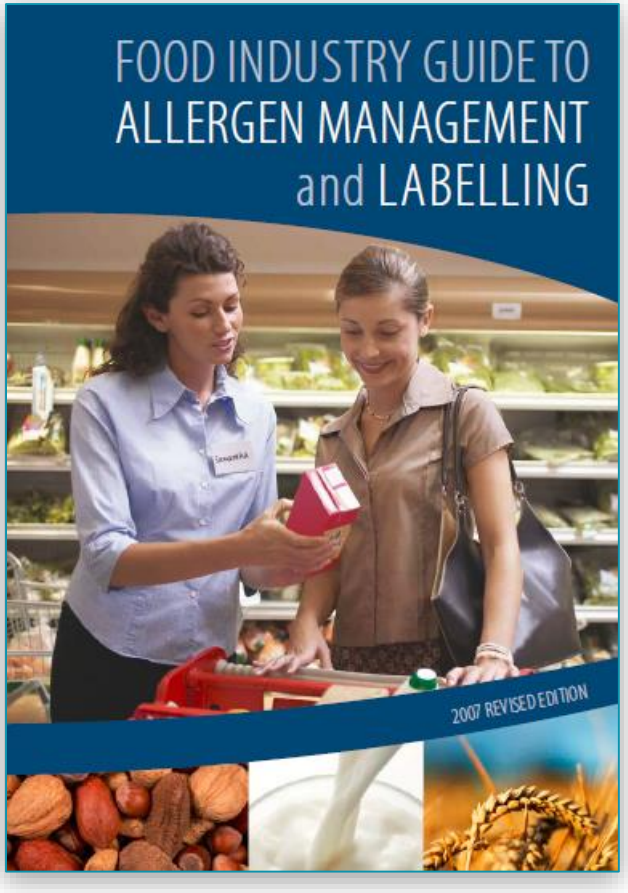
Allergen labelling best practice*

- ~ simple plain language
- ~ unambiguous
- ~ easily identifiable
- ~ associated with or near the ingredient list
- ~ in association with the VITAL® Program



*where no contrary regulation exists

INGREDIENTS

Vegetable Oils & Hydrogenated Vegetable Oils [Antioxidant (306 From Soy)], Egg, Whey Powder (From Milk), Cheese (7%) {Maasdam Cheese, Processed Cheese [Milk, Milk Protein, Salt, Cheese Culture, Rennet, Emulsifier (331)]}, Rice Flour, Wheat Flour, Emulsifier (420), Cheese Powder (4.3%), {Cream Cheese Solids [Cream (From Milk), Cultures, Salt], Whey Solids (From Milk)}, Breadcrumbs [Wheat Flour, Salt, Yeast, Colours (100, 160b)], Rice Starch, Wheat Starch, Onion Seasoning {Dried Onion, Breadcrumbs [Wheat Flour, Salt, Raising Agent (503)], Salt, Dried Garlic, Flavours}, Sour Cream Powder (1.5%) {Cultured Cream [Milk, Culture], Whey Solids (From Milk), Dry Milk Solids}, Potato Starch, Dried Chives (0.4%), Raising Agents (500, 575), Emulsifier (473), Dried Dill, Thickener (415), Colour (160b (Contains Wheat)).

MAY CONTAIN TRACES OF TREE NUTS AND FISH.

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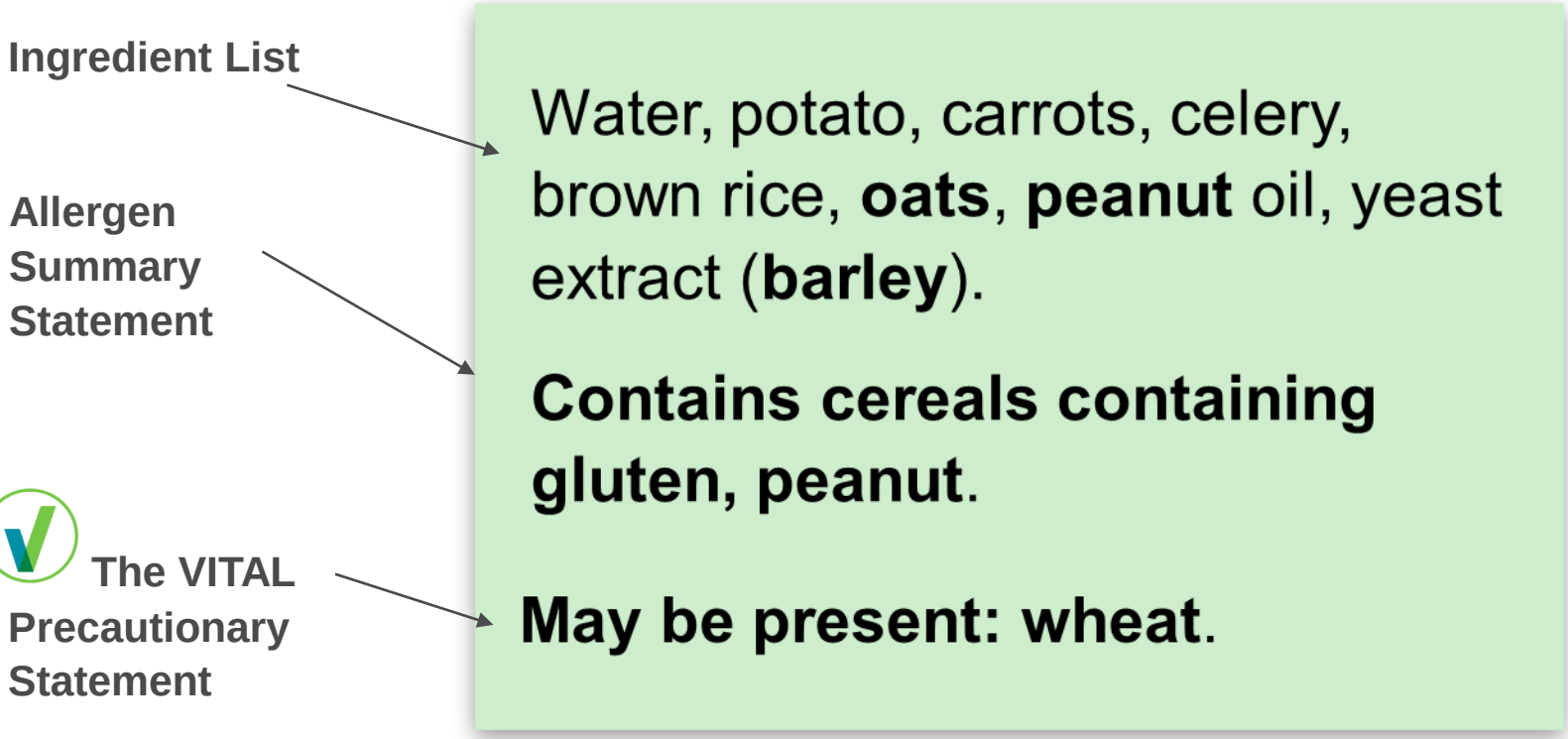
Example of allergen labelling using VITAL®



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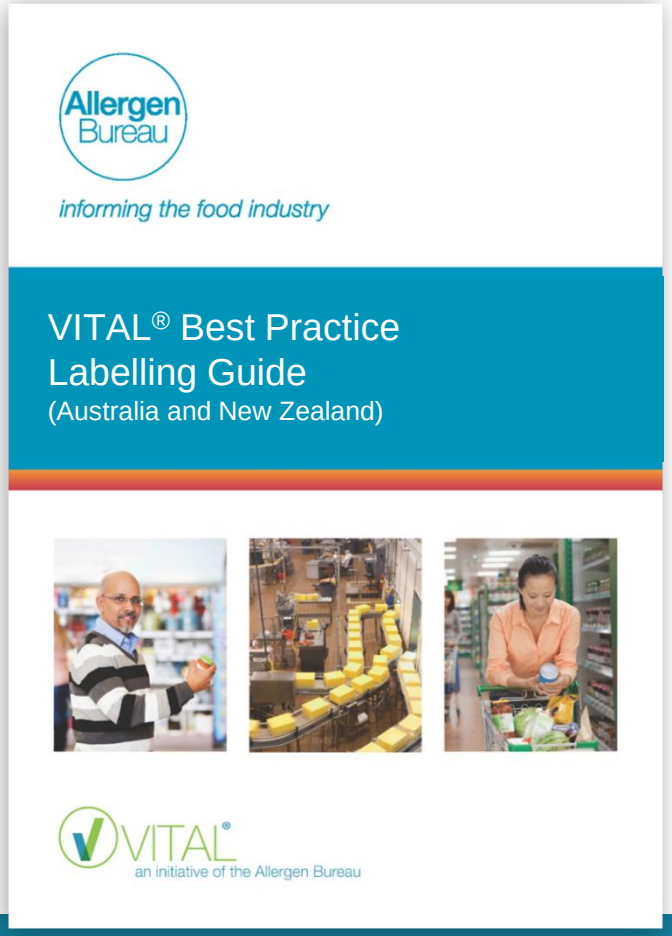
VITAL® Best Practice Labelling Guide

(Australia and New Zealand)

- a VITAL risk assessment using VITAL Online will produce a VITAL labelling outcome
- this guide provides examples of how to declare food allergens and cross contact allergens using the VITAL labelling outcome
- available on the Allergen Bureau website



Step	Description	References/Resources
1	Obtain the product formulation/recipe including amounts of each ingredient.	
2	Obtain Product Information Forms (PIFs) and/or specifications for all ingredients. Ensure all sources of allergens as ingredients and cross contact allergens are identified and recorded.	✓ AFGC - Product Information Form (PIF)
3	Identify allergens in the product using the formulation and ingredient information, including: ✓ Ingredients ✓ Food additives ✓ Processing aids ✓ Compound ingredients ✓ Cross contact ingredients	✓ ANZ Food Standards Code Standard 1.2.3 ✓ AFGC - Product Information Form (PIF) ✓ Allergen Bureau - VITAL Guide (2012) ✓ Allergen Bureau - Unexpected Allergens in Food

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4	Compose the ingredient list and declare the allergens formulated into the product.	✓ ANZ Food Standards Code Standard 1.2.3 ✓ AFGC – Allergen Guide ✓ Allergen Bureau - VITAL Best Practice Labelling Guide
5	Conduct a VITAL risk assessment to determine the presence of cross contact allergens from ingredients and processing.	✓ Allergen Bureau - VITAL Guide (2012) ✓ Allergen Bureau – VITAL Online (web-based calculator) ✓ Allergen Bureau – VITAL Q&As
6	Using the VITAL summary of labelling outcomes ✓ confirm the allergens in the ingredient list ✓ confirm the allergen summary statement, and ✓ compose the appropriate precautionary statement	✓ Allergen Bureau – VITAL Online (web-based calculator) ✓ AFGC – Allergen Guide ✓ Allergen Bureau - VITAL Best Practice Labelling Guide

2.2 Snack Bar

a. Overview

This worked example covers the following:

- Tree nuts
  - when present as an ingredient and as a cross contact allergen;
- The VITAL Program and tree nuts;
- Coconut;
- Honey;
- Highly refined ingredients and allergen labelling exemptions

Ingredient	Quantity (%)	Allergen Information	Detailed Summary Report	VITAL Online finished product labelling outcome
Oats	64	• Allergen - **cereals containing gluten (oats)** • Intentionally added	Table 4 Intentionally added	**Cereals containing gluten (total)** Intentionally added
Glucose syrup	15	• Source - derived from wheat (supplier advises that it is highly refind glucose syrup and contains less than 20 ppm gluten protein) • Allergen - **cereals containing gluten (wheat)** • Intentionally added	Table 4 Intentionally added	**Cereals containing gluten (total)** Intentionally added
Almond meal	10	• Allergen - **tree nut (almond)** • Intentionally added	Table 4 Intentionally added	**Tree nuts (total)** Intentionally added
		• Allergen - **tree nut (cashew)** • Cross contact • Form - readily dispersible	Table 4 **30 ppm**	**Tree nuts (total)** Intentionally added
Honey	6			
Coconut	5			
Cross contact due to processing		No cross contact due to processing		

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Ingredient List:	**Oats**, glucose syrup, **almond** meal, honey, coconut.
Allergen Summary Statement:	**Contains oats, tree nuts (almond).**
Precautionary Statement:	**May be present:** other **tree nuts (cashew).**

2.1.1.1 Declaring specific cereal varieties

2.2.1 Tree nuts

The FSC section *1.2.3-4(1)(b)* states that it is mandatory to declare tree nuts and tree nut products other than coconut from the fruit of the palm *Cocos nucifera*. Additionally, the FSC *Schedule 10* requires the specific name of the tree nut to be declared. The *FSC Schedule 22 Foods and classes of foods* lists tree nuts as: almonds; beech nuts; Brazil nut; cashew nut; chestnuts; coconut*; hazelnuts; hickory nuts; Japanese horse-chestnut; macadamia nuts; pecan; pine nuts; pili nuts; pistachio nuts; sapucaia nuts; walnuts.

➲ * Refer Section 2.2.2 as to why coconut is a 'tree nut' that does not require mandatory declaration.

The AFGC – *Allergen Guide* recommends the specific type of tree nut is declared in the ingredient list. In the allergen summary statement the term 'tree nuts' can be used, however the term 'nuts' should be avoided.

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Did you know?

Individuals may be allergic to a particular cereal containing gluten but not to gluten.

So it is important to **clearly specify the cereal source.**

Using terms such as '*cereals containing gluten*' or '*contains gluten*' without further clarification will not always provide enough information for consumers who need to know the specific type of cereal.

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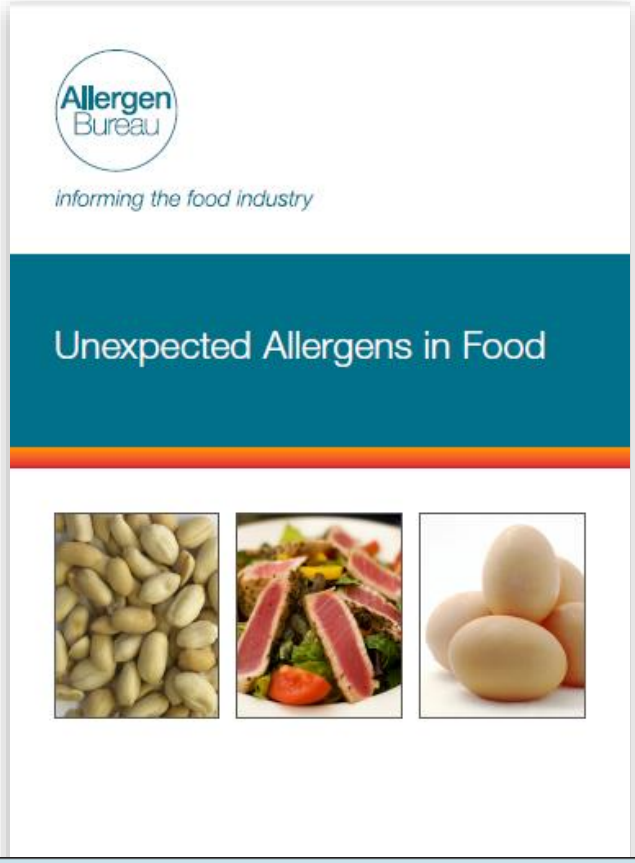
Unexpected Allergens in Food

- Questions to ask suppliers
- Available on the Allergen Bureau website



Soy Sauce	Does it contain **wheat** (in addition to **soy**)?
Spices	Does they contain any bases, carriers, free flowing agents (e.g. maltodextrin, flour, oleoresins, emulsifiers). If yes, what are they derived from e.g. **wheat**, maize, **soy**, **egg**?
Stabilisers	What are they derived from (e.g. **soy**, **egg**)?

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More information on the FSANZ website

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Food Standards Australia New Zealand (FSANZ)

Key messages for food manufacturers and retailers

- Implement an effective allergen management plan.
- Train staff in food allergen risks, management and communication.
- Provide clear and accurate information on the allergen status of your product
- Food manufacturers have a responsibility to manage the unintentional presence of food allergens.

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The VITAL ® Program

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Allergen Bureau - Why

~ May contain ..... Inconsistent use of Allergen Risk Assessment

~ Proliferation of cross contact statements across the industry, survey of 350 products in 2005 revealed 42 creative statements!

- Made in the same factory/facility.....
- Made on the same line.....

~ Allergic consumers were ignoring cross contact statements

~ Action levels varied between manufacturers, no consistency

So…

Industry Guidance and Standards were needed

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Voluntary Incidental Trace Allergen Labelling

The VITAL® (Voluntary Incidental Trace Allergen Labelling) Program is a standardised allergen risk assessment process for food industry

Developed by industry for industry and is adopted on a voluntary basis

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The VITAL® Program

The VITAL Program can be used to assist food producers in presenting allergen advice accurately and consistently for allergic consumers using a **single simple standardised precautionary statement**

The VITAL precautionary statement is:

May be present: [insert cross contact allergens]

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Why do allergen risk assessment?

Carrying out a VITAL® risk assessment using the tools provided ensures a food company understands

- the allergen status of its ingredients
- impact of allergen cross contact from processing
- the allergen status of its finished products

Allergen risk assessment contributes towards due diligence

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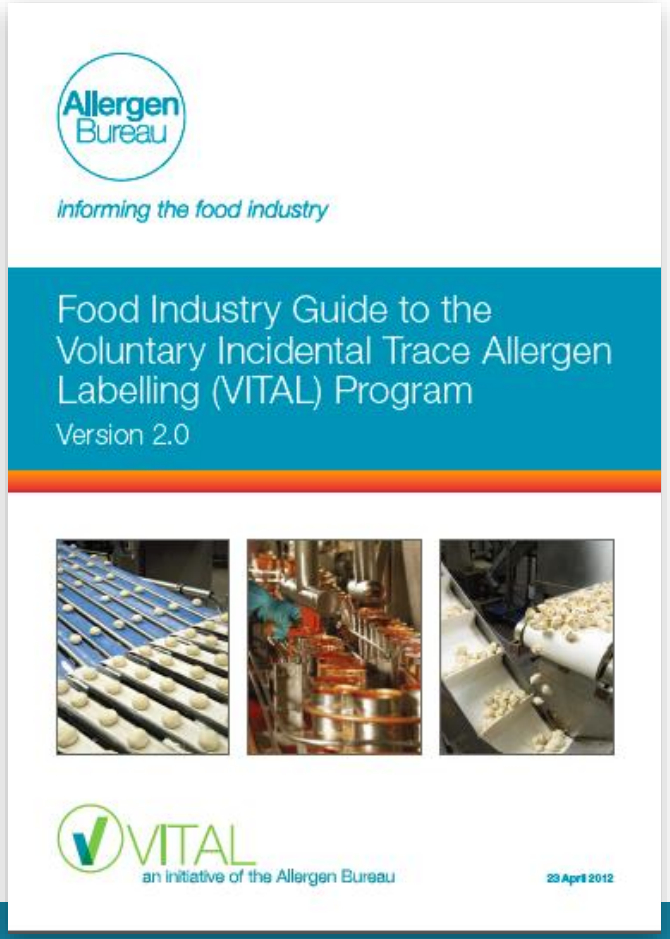
The VITAL® Program must be part of …

An established allergen management plan

which includes…

a HACCP based food safety program that is adapted for allergen control



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The VITAL® Program tools

- ~ VITAL Procedure
- ~ Decision Tree
- ~ Interactive VITAL Action Level Grid
- ~ VITAL Online (calculator)
- ~ VITAL training materials
- ~ Guidance documents & FAQs

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Imagine a world without VITAL®

- ~ proliferation of inconsistent cross contact statements
- ~ people with allergy confused and taking risks
- ~ clinicians unable to provide consistent advice
- ~ industry confusion, no clear consistent guidance

VITAL was developed to respond to industry needs for a uniform approach for determining when to use precautionary labelling

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VITAL® Program overall objective

To ensure manufactured food is safe to consume for the vast majority of food allergic consumers by providing consistent food labels that declare the presence of allergens, due to documented, unavoidable and sporadic cross contact thus enabling allergic consumers and their carers to avoid purchasing foods that may present a personal risk.

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The VITAL® Procedure

1. Determination of relevant allergens
2. Identification of intentionally added allergens
3. Identification and quantification of cross contact allergens due to ingredients
4. Identification & quantification of cross contact allergens due to processing
5. Calculation of total cross contact allergen in finished product
6. Determination of Action Levels
7. Review of labelling recommendations and sources of cross contact
8. Recording of Assumptions
9. Validation of VITAL assessment
10. Ongoing Monitoring

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The key concepts of the VITAL® Program

Overview

- Reference Dose
- Reference Amount or Serving Size
- Action Levels
- Precautionary Labelling

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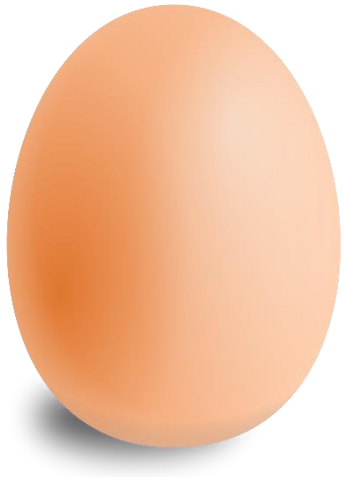
Reference Dose

The total protein from an allergic food below which only the most sensitive individual (between 1 and 5% depending on the quality of the data) in the allergic population are likely to experience an adverse reaction



Approx. 8900mg protein in a 70g raw whole egg

Greater than 0.03mg of egg protein may trigger an allergic reaction

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What is the science behind VITAL®?

The VITAL Program determines appropriate precautionary labelling based on risk by using Action Levels that are underpinned by **scientific evidence**

The science is recognised internationally and is increasingly referenced by experts throughout the world

A collaboration of international food allergen experts established the science that underpins VITAL

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The VITAL® Scientific Expert Panel (VSEP)

- over 1800 clinical data points were collated
- used statistical modelling to look at the implication for the allergic population
- set Reference Doses based on established principles
- validated using probabilistic modelling for the population

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Reference Doses are available from the Allergen Bureau website

Allergen	Reference Dose (mg of total protein)
Peanut	0.2
Milk	0.1
Egg	0.03
Tree nuts	0.1
Soy	1
Wheat	1
Mustard	0.05
Lupin	4
Sesame	0.2
Crustacea (shrimp)	10
Fish	0.1

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Reference Dose

Only applicable for the allergens within the VITAL® Action Level Grid

~ no Reference Dose for mollusc

~ no Reference Dose for celery

Not applicable for people who have heightened sensitivity to food allergens

~ foods for infants

~ food for special medical purposes

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Reference Amount

The maximum amount of a food eaten in a typical eating occasion (never the less than the serving size)

What is a typical eating occasion?

One cake slice or two?
One mini choc bar or a king size bar?
Two scoops ice cream or more?

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Action Levels

Are the concentrations (of protein) which define the labelling outcomes from a cross contact allergen

Action Level transition point* (ppm) =

$$\left(\text{Reference Dose (mg)} \times \frac{1000}{\text{Reference Amount (g)}}\right)$$

* With the exception of cereals containing gluten where it is either the result from this formula or 20ppm, whichever is smaller

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Action Levels guide labelling recommendations

Action Level 1

a low concentration of allergen protein and a low chance of adverse reaction.

No precautionary statement is required.

Action Level 2

a significant concentration of allergen protein and a significant chance of adverse reaction.

A precautionary statement is required.

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Example ~ Calculating Action Levels for product with peanut cross contact

Peanut Reference Dose = 0.2 mg protein

5g Reference Amount or Serving Size:

(Transition = 0.2 x 1000/5 = 40ppm)

Action Level 1:<40ppm

Action Level 2:≥40ppm

50g Reference Amount or Serving Size:

(Transition = 0.2 x 1000/50 = 4ppm)

Action Level 1 :<4ppm

Action Level 2 :≥4 ppm

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Example of a VITAL® Online Labelling Outcome Summary

VITAL labelling outcomes will appear like this

Table : Summary of labelling outcomes

Reference amount or serving size: 80g

Substances	Reference dose (mg)	Action level 1	Action level 2	Cross contact amount		Labelling outcome
				Particulate	Readily dispersible (ppm)	
Celery						
Cereals containing gluten (Total)	1	< 12.5 ppm	≥ 12.5 ppm			
Barley	1	< 12.5 ppm	≥ 12.5 ppm			
Oats	1	< 12.5 ppm	≥ 12.5 ppm			
Rye	1	< 12.5 ppm	≥ 12.5 ppm			
Spelt						
Wheat	1	< 12.5 ppm	≥ 12.5 ppm			
Crustacea	10	< 125 ppm	≥ 125 ppm			
Eggs	0.03	< 0.375 ppm	≥ 0.375 ppm			Intentionally added
Finfish	0.1	< 1.25 ppm	≥ 1.25 ppm		24	Action Level 2
Lupin						
Milk	0.1	< 1.25 ppm	≥ 1.25 ppm		0.9	Action Level 1
Mustard						
Other						
Peanut	0.2	< 2.5 ppm	≥ 2.5 ppm	yes		Action Level 2
Sesame	0.2	< 2.5 ppm	≥ 2.5 ppm			
Shellfish/Molluscs						
Soy	1	< 12.5 ppm	≥ 12.5 ppm			Intentionally added
Sulphites						
Tree nuts (Total)	0.1	< 1.25 ppm	≥ 1.25 ppm			

Source: VITAL Online

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VITAL ® Online

VITAL FEATURES PRICING ABOUT SUPPORT REGISTER **SIGN IN**

Welcome to VITAL® Online

VITAL Online is an improved and user-friendly, web-based update of the Allergen Bureau VITAL® Calculator. VITAL Online is for the Australian and New Zealand and international food industry.

VITAL Online allows you to:

- assess likely sources of allergen cross contact from raw materials and the processing environment
- evaluate the amount of allergen present
- review the ability to reduce allergenic material from all contributing sources
- use a particular precautionary allergen statement according to the level of allergen cross contact identified

REGISTER AN ACCOUNT **FREE 1 MONTH TRIAL**

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Support for the development of VITAL® Online has been provided by Food Innovation Australia Ltd (FIAL) through the SME Solution Centre program. www.fial.com.au

fial food innovation Australia Ltd

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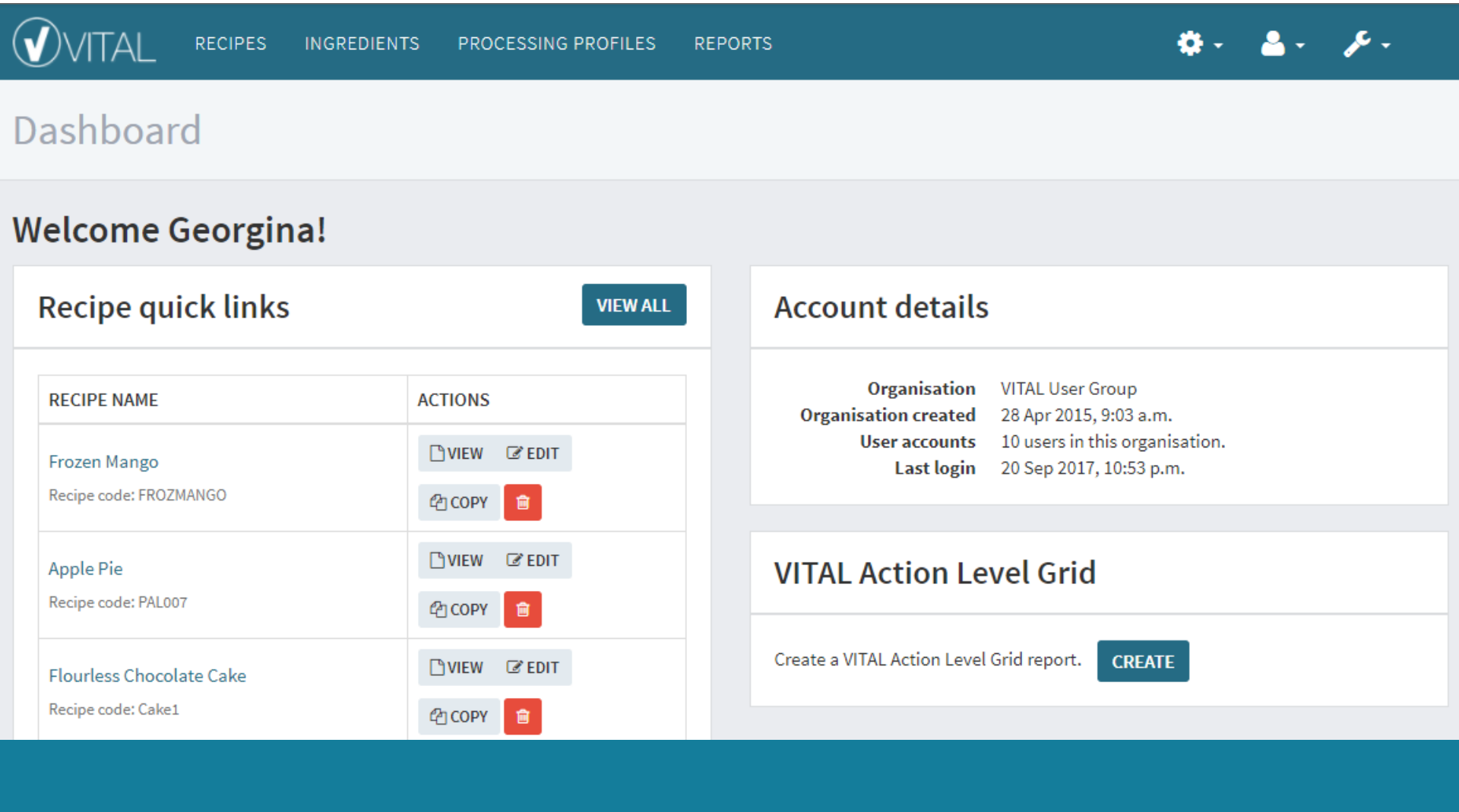
VITAL ® Online



Create a new recipe

Create recipe

Recipe name*

Recipe code*

Reference Amount*

g

E.g. Finished Product Serving Size.

Ingredient intended for further processing

Reference Amount not applicable

Reference Amount assumptions*

Legislation*

NEXT STEP

Step 1: Setup

Step 2: Yield

Step 3: Ingredients

Step 4: Processing

Step 5: Report

Help and Support

To begin creating a recipe, allocate a recipe code and assign the appropriate legislation.

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Flourless Chocolate Cake Ref:Cake1

Recipe & Raw Material Allergen Status

Yield 85% (Water loss is 15%)
Serving size is 80g

			Allergen Status	
Reference	Raw Material	Ingoing %	Intentional	Cross Contact
RM1	Liquid whole egg	30	Egg	
RM2	Cooking fat	30		Milk (3ppm), fish (80ppm)
RM3	Sugar	30	None declared	
RM4	Dark compound chocolate	10	Soy	Peanut pieces (particulate)

Processing Cross Contact

Hang Up is 2kg
Batch size exposed to Hang Up is 200kg
Raw Vegan Cake contains whole sesame seeds
Honey Almond Cake contains almond flour (40% almond in cake, 20.4% protein in almond)

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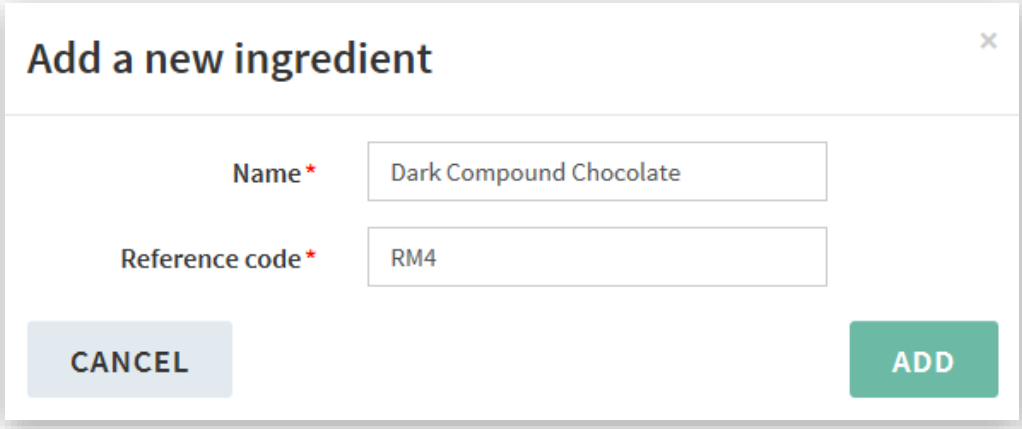
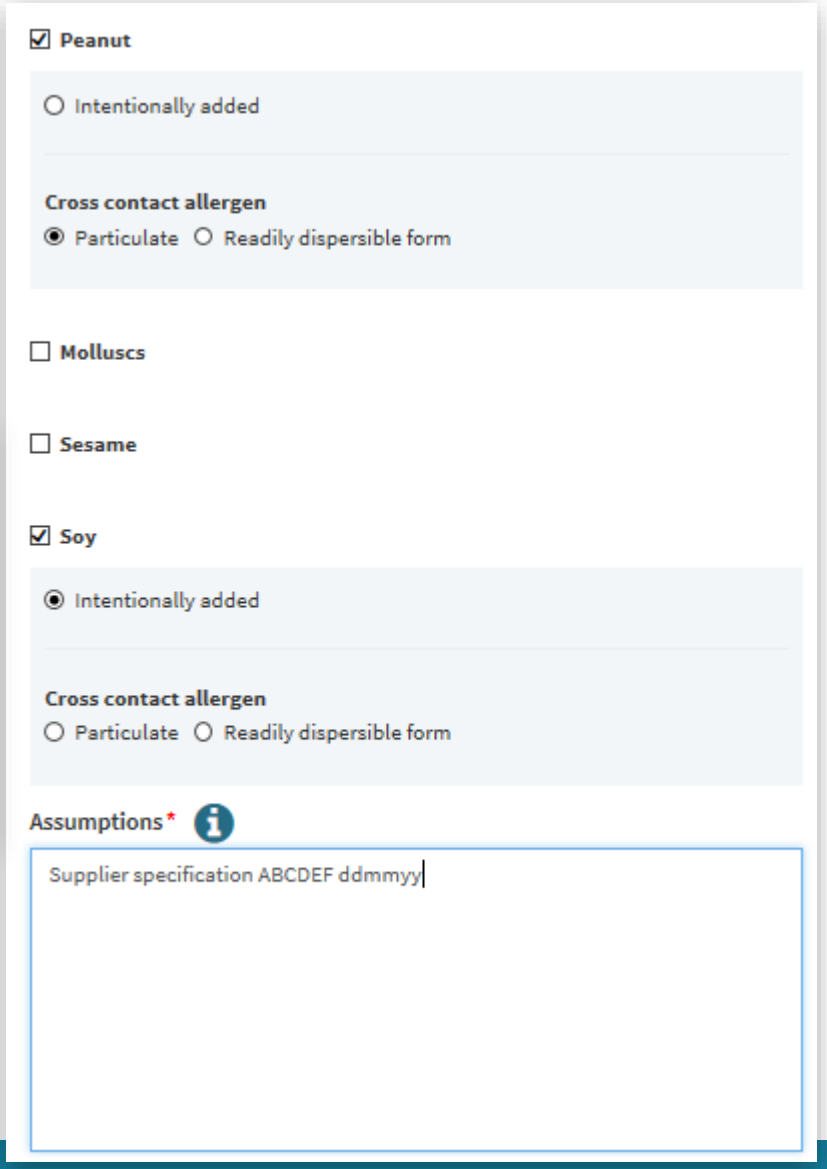
Enter the allergen information for RM4





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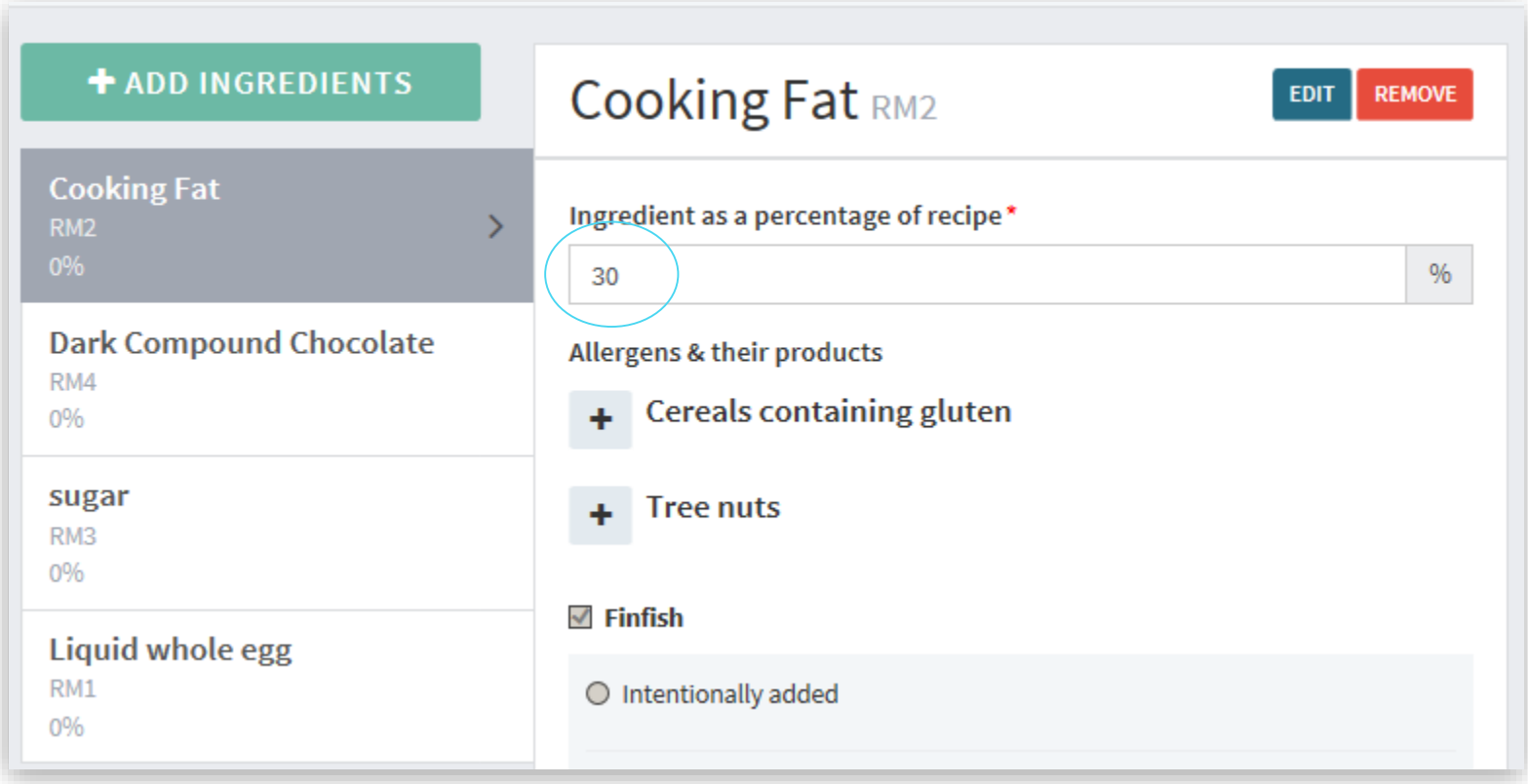
Enter the percentage of each ingredient



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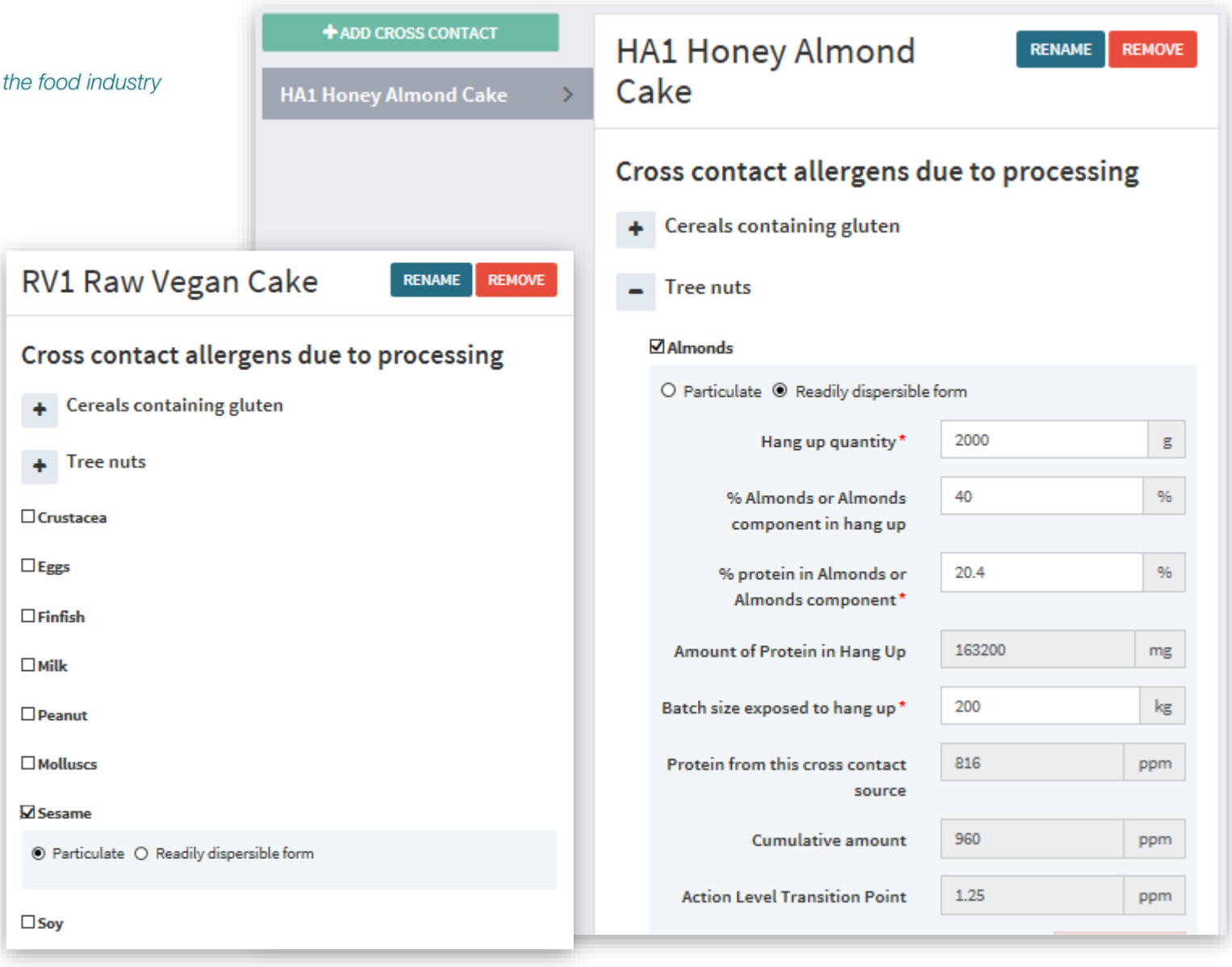

Table 1: Summary of labelling outcomes

Reference amount or serving size information
Reference amount or serving size: 80g
Assumptions: 80g represents a typical slice

Substances	Reference dose (mg)	Action level 1	Action level 2	Cross contact amount		Labelling outcome
				Particulate	Readily dispersible (ppm)	
Eggs	0.03	< 0.375 ppm	≥ 0.375 ppm			Intentionally added
Finfish	0.1	< 1.25 ppm	≥ 1.25 ppm		28.2352941	Action Level 2
Milk	0.1	< 1.25 ppm	≥ 1.25 ppm		1.0588235	Action Level 1
Peanut	0.2	< 2.5 ppm	≥ 2.5 ppm	yes		Particulate
Sesame	0.2	< 2.5 ppm	≥ 2.5 ppm	yes		Particulate
Soy	1	< 12.5 ppm	≥ 12.5 ppm			Intentionally added
Tree nuts (Total)	0.1	< 1.25 ppm	≥ 1.25 ppm		960	Action Level 2
Almonds					960	

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The Outcome Summary shows the cumulative cross contact allergen levels from the recipe ingredients

Great tool for assessing impact of individual ingredients within a recipe!

Table : Summary of labelling outcomes

Reference amount or serving size information
Reference amount or serving size: 80g
Assumptions: 80g represents a typical slice

Substances	Reference dose (mg)	Action level 1	Action level 2	Cross contact amount		Labelling outcome
				Particulate	Readily dispersible (ppm)	
Cereals containing gluten (Total)	1	< 12.5 ppm	≥ 12.5 ppm			
Barley	1	< 12.5 ppm	≥ 12.5 ppm			
Oats	1	< 12.5 ppm	≥ 12.5 ppm			
Rye	1	< 12.5 ppm	≥ 12.5 ppm			
Spelt	1	< 12.5 ppm	≥ 12.5 ppm			
Wheat	1	< 12.5 ppm	≥ 12.5 ppm			
Crustacea	10	< 125 ppm	≥ 125 ppm			
Eggs	0.03	< 0.375 ppm	≥ 0.375 ppm			Intentionally added
Finfish	0.1	< 1.25 ppm	≥ 1.25 ppm		28.2352941	Action Level 2
Milk	0.1	< 1.25 ppm	≥ 1.25 ppm		1.0588235	Action Level 1
Peanut	0.2	< 2.5 ppm	≥ 2.5 ppm	yes		Particulate
Molluscs						
Sesame	0.2	< 2.5 ppm	≥ 2.5 ppm			
Soy	1	< 12.5 ppm	≥ 12.5 ppm			Intentionally added

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Comparing Reference Amounts

Substances	Reference dose (mg)	Action level 1	Action level 2	Cross contact amount		Labelling outcome
				Particulate	Readily dispersible (ppm)	

Flourless Chocolate Cake 80g Reference Amount

Milk	0.1	< 1.25 ppm	≥ 1.25 ppm		1.0588235	Action Level 1

Flourless Chocolate Cake 160g Reference Amount

Milk	0.1	< 0.625 ppm	≥ 0.625 ppm		1.0588235	Action Level 2

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Comparing different Hang Up amounts

Substances	Reference dose (mg)	Action level 1	Action level 2	Cross contact amount		Labelling outcome
				Particulate	Readily dispersible (ppm)	

Hang Up from Honey Almond Cake is 2kg (2000g)

Tree nuts (Total)	0.1	< 1.25 ppm	≥ 1.25 ppm		960	Action Level 2
Almonds					960	

Hang Up from Honey Almond Cake is 3g (3g)

Tree nuts (Total)	0.1	< 1.25 ppm	≥ 1.25 ppm		1.44	Action Level 2
Almonds					1.44	

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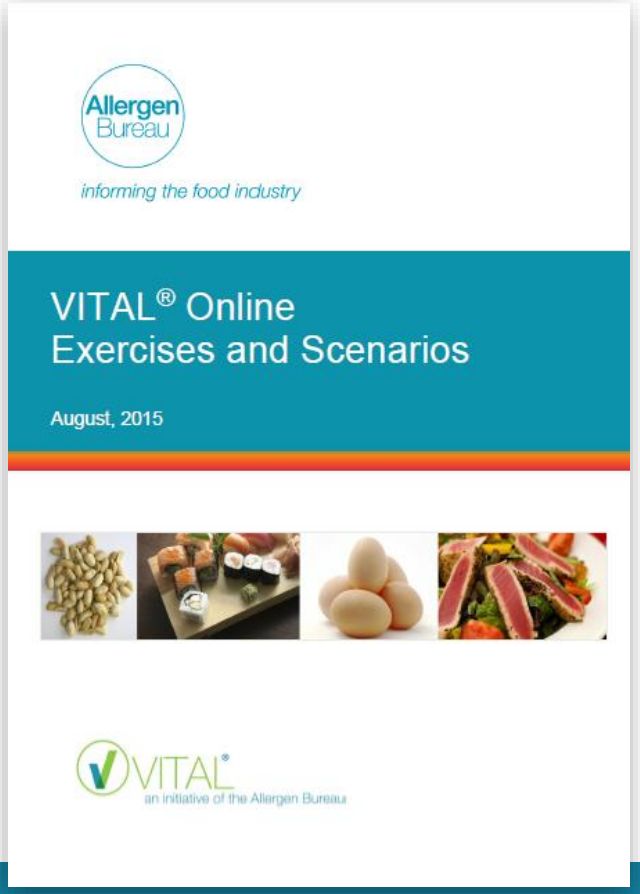
VITAL® Training

- VITAL Training is available through training providers who are endorsed by the Allergen Bureau
- to obtain a VITAL training certificate you will need to attend the training course
- a list of endorsed training providers is available on the Allergen Bureau website



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Allergen labelling using the VITAL® Program

- consistent approach to assessing cross contact allergen risk
- clear, consistent and accurate allergen declaration
- assists consumers in making safer food choices
- encourages the elimination of cross contact allergens where possible within manufacturing or via material supplier
- standard precautionary statement is used

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VITAL® Precautionary Statement

The '**May be present: XXX**' statement is the **only** precautionary statement to be used with VITAL

Only to be used where the VITAL Program has been applied and the allergen has a VITAL labelling outcome at **Action Level 2**

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FAQs to the **Free** Allergen Helpline

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Questions on allergen testing...

- Q. We have tested our product for all allergens and the results are <LOD – is that OK?
- A. *The allergen statement should be supported by a robust allergen management plan. Finished product testing is not appropriate solely for this purpose.*
- Q. We have tested our products for allergens and it is Action Level 1 – we don’t need a cross contact statement, right?
- A. *Where is the allergen coming from?*

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Allergen analysis is useful for...

- Cleaning (verification/validation)
- Ingredients (verification/validation of information)
- Equipment – troubleshooting
- Validation of VITAL risk assessment
- Other applications

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What is allergen management?

The sum of policies, procedures and practices which contribute towards controlling allergens in a company

Allergen management is applicable to all levels and all areas of a company and sets the approach to the control and management of allergens

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Before you look at the VITAL Program.....

Implement a robust Allergen Management Plan which includes:

-Consider allergens from in product design

-Vendor Assurance (know what is in your ingredients)

-Allergen Assessment of processing (identify possible allergen cross contact and have strategies in place to eliminate/manage/control – e.g. Sheduling, training etc)

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Confidence in supplier information

Obtaining allergen information from ingredient suppliers should be a key component of your Vendor Assurance program

- ~ always clarify information from supplier – this exchange will assist in gaining confidence in supplier's allergen knowledge and handling
- ~ query anything unusual or unexpected - don't assume everything is correct
- ~ keep asking questions until you are satisfied with the response - do not accept data gaps

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Recent Changes to FSC Standard 1.2.3: **Exemptions**

~ Exemptions to the requirement for mandatory declaration were added to FSC August 2016

- **Glucose syrups made from wheat starch**
- **Fully refined soy oil**
- **Soy derivatives (tocopherols and phytosterols)**
- **Distilled alcohol from wheat or whey**

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Recent Changes to FSC Standard 1.2.3: **Lupin**

- Lupin is a legume
- Most lupin is grown in Australia
- It improves the soil and is grown in crop rotation with wheat (and oilseeds)
- Used in breads & other bakery items. Can be made into a protein isolate and used in a variety of products

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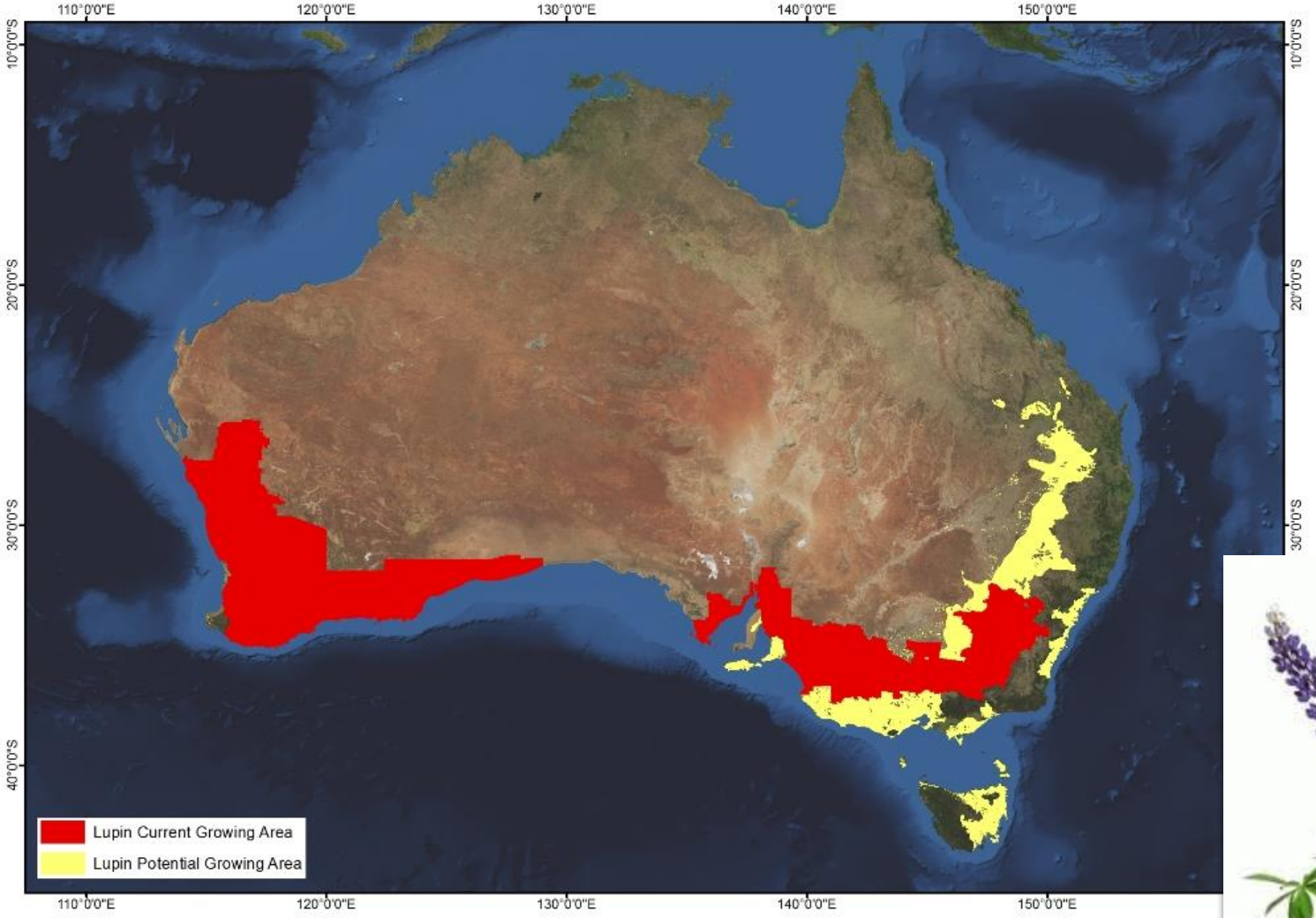
What is Lupin?

- Edible seed (kernel) of the lupin plant



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Uses for Lupin

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Soy lecithin

Q. How do I label soy lecithin – is it exempt from the declaration of soy?

A. *Soy lecithin is not exempt from mandatory allergen labelling.*

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Importing and exporting products and ingredients ~ some considerations

- ~ different exemptions and limits for ‘gluten free’
- ~ different allergens for different jurisdictions
- ~ some jurisdictions allow exemptions (e.g. highly refined ingredients, others don’t)
- ~ translation challenges
- ~ lack of understanding of different jurisdiction legislative needs

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The Allergen Bureau exists to support the food industry by

- ~ providing a pre-competitive space to share information
- ~ providing information resources, practical tools and industry contacts for the better management of food allergens
- ~ helping to save time and money because food allergen issues are addressed in a professional and informed way

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Allergen Bureau Management

Allergen Bureau ('Not for Profit')

The Board of Directors

- Kirsten Grinter (Nestlé)
- Caroline Gray (Danisco-DuPont)
- Debbie Hawkes (Hawkins Watts)
- Karen Robinson (Invited Director)
- David Henning (Invited Director)

Our support network

- VITAL® Coordinator /support (Georgina Christensen & Lisa Warren)
- Technical expertise (Simon Brooke Taylor & Rob Sherlock)
- VITAL® Scientific Expert Panel (VSEP)

Funded Secretariat

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Further Engagement and Resources

The Allergen Bureau

- Visit the website www.allergenbureau.net
- Subscribe to our free monthly Allergen Bureau eNews www.allergenbureau.net/news/
- Access the AllergenBureau Helpline
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  Phone: +61 437 918 959
- Georgina Christensen vital@allergenbureau.net