



*informing the food industry*

# Allergy, Allergens & Allergen Management for the Food Industry

Romer Labs – Food Allergen Seminars

Georgina Christensen – Auckland, 27 September 2017

Kirsten Grinter – Sydney, 3 October 2017



informing the food industry

# The Allergen Bureau

- ~ Established in 2005 due to industry demand, a 'Not for Profit' organisation
- ~ Manage VITAL® Program, continues to invest & engage broadly
- ~ Our members steer the resources & projects
  - 31 Full members
  - 23 Associate members
  - 21 Individual members



Our reason for being to share information & experience across the food industry on the management of food allergens to ensure consumers receive relevant, consistent & easy to understand food allergen information

## **Overview**

- ~ **Adverse Reactions to food (food allergy, coeliac disease, intolerance)**
- ~ **Global Allergen Regulations**
- ~ **Best Industry Practice in Supply Chain Validations**
- ~ **The VITAL<sup>®</sup> Program**

# Adverse Reactions to Food



# Adverse Reactions to Food

Immune Mediated

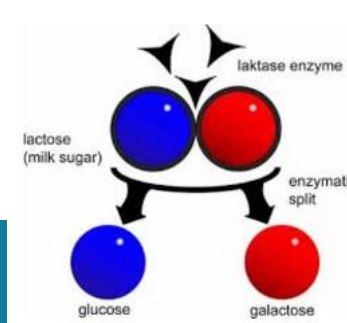
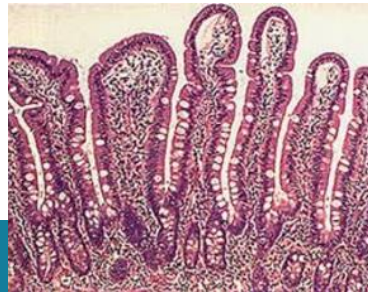
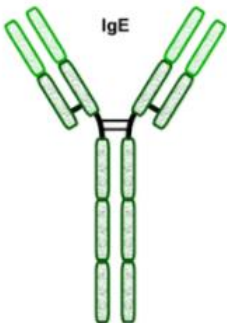
Non-immune Mediated

IgE Mediated  
(e.g. **food allergy**)

IgE Mediated  
(e.g. **coeliac disease**)

Metabolic  
(e.g. **lactose intolerance**)

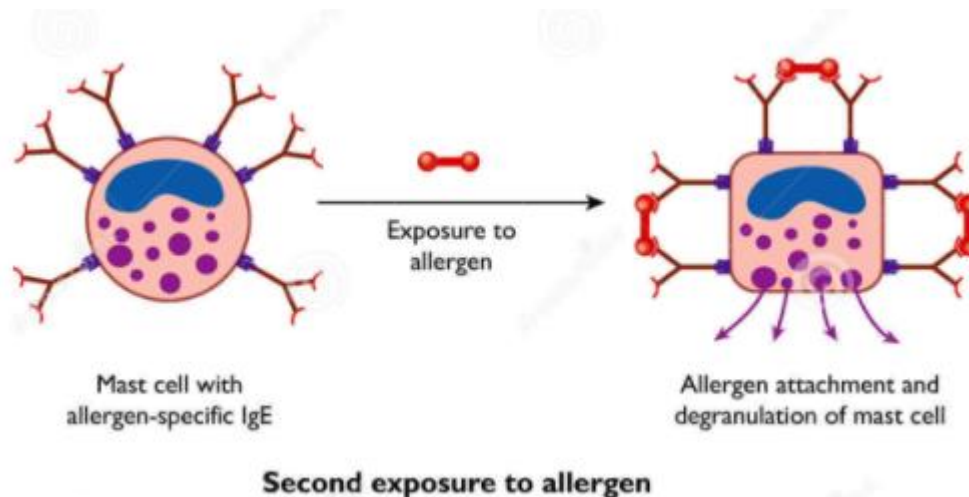
Other (e.g. **sulphite sensitivity**)



# 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



## 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.

## Predominant food allergens

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





## 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

## Some symptoms of an allergic reaction to a food



Urticaria



Atopic Dermatitis



Anaphylaxis

## 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)

## 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

## 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.

## 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

# 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.)

- ~ 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



*informing the food industry*

# Global Allergen Regulation



# 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.

## 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.

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

- ~ **Lupin** was added to the substances which require mandatory declaration - 25th May 2017
- ~ Transitional arrangement until 25<sup>th</sup> May 2018 for compliance
- ~ No stock-in-trade provision – all products and declarations, including products on shelf, must be compliant by 25th May 2018



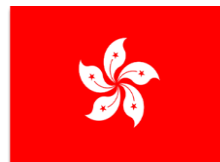
## Recent Changes to FSC Standard 1.2.3: **Exemptions**

- ~ 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**

# Mandatory allergen declaration requirements vary from country to country



CODEX  
(8 allergens)



Hong Kong  
(8 allergens)



European Union  
(13 allergens)



Japan  
(6+ allergens)



Aust / NZ  
(10 allergens)



Korea  
(7+ allergens)



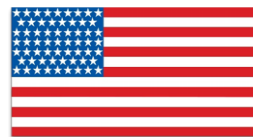
Canada  
(11 allergens)



Mexico  
(8 allergens)



China  
(8 allergens)



USA  
(8 allergens)

## International Regulatory Chart

May 25, 2017

International Allergens	USA	Canada	EU	Australia/ NZ	Hong Kong	China	Japan**	Korea	Taiwan	Argentina	Thailand	Bolivia	Brazil	Chile	Colombia	Costa Rica	Cuba	Mexico	Nicaragua	South Africa	Venezuela
<b>Crustacean Shellfish</b>	X	X	X	X	X	X	X (Crab, Shrimp, Prawn)	X (Crab, Shrimp, Prawn)	X (Crab, Shrimp)	X	X	X	X	X	X	X	X	X	X	X	X
<b>Egg</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Fish</b>	X	X	X	X	X	X		X (Mackerel)		X	X	X	X	X	X	X	X	X	X	X	X
<b>Milk</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Peanut</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Soy</b>	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X
<b>Tree nuts</b>	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X
<b>Wheat</b>	X	X	X	X		X	X	X				X	X		X	X	X		X	X	X
<b>Cereals with Gluten</b>		X	X	X	X	X				X	X	X	X	X	X	X	X	X	X		X
<b>Buckwheat</b>						X	X	X													
<b>Celery</b>			X																		
<b>Lupin</b>			X	X																	
<b>Molluscan Shellfish</b>		X	X	X		X														X	
<b>Mustard</b>		X	X																		
<b>Sesame</b>		X	X	X																	
<b>Sulfites</b>	≥10 mg/kg	Directly added or ≥10 mg/kg	≥10 mg/kg	≥10 mg/kg	≥10 mg/kg					≥10 mg/kg	≥10 mg/kg	≥10 mg/kg	X	≥10 mg/kg	≥10 mg/kg	≥10 mg/kg	≥10 mg/kg	≥10 mg/kg	≥10 mg/kg		≥10 mg/kg
<b>Bee Pollen/ Propolis</b>				X																	
<b>Royal Jelly</b>				X																	
<b>Mango</b>									X												
<b>Peach</b>								X													
<b>Pork</b>								X													
<b>Tomato</b>								X													
<b>Latex (Natural Rubber)</b>													X								

\*\* = Voluntary labeling recommended for Abalone, Mackerel, Squid, Salmon, Salmon Roe, Cashew, Walnut, Matsutake Mushroom, Sesame, Soybean, Yam, Apple, Banana, Kiwifruit, Orange, Peach, Beef, Chicken, Gelatin, Pork.



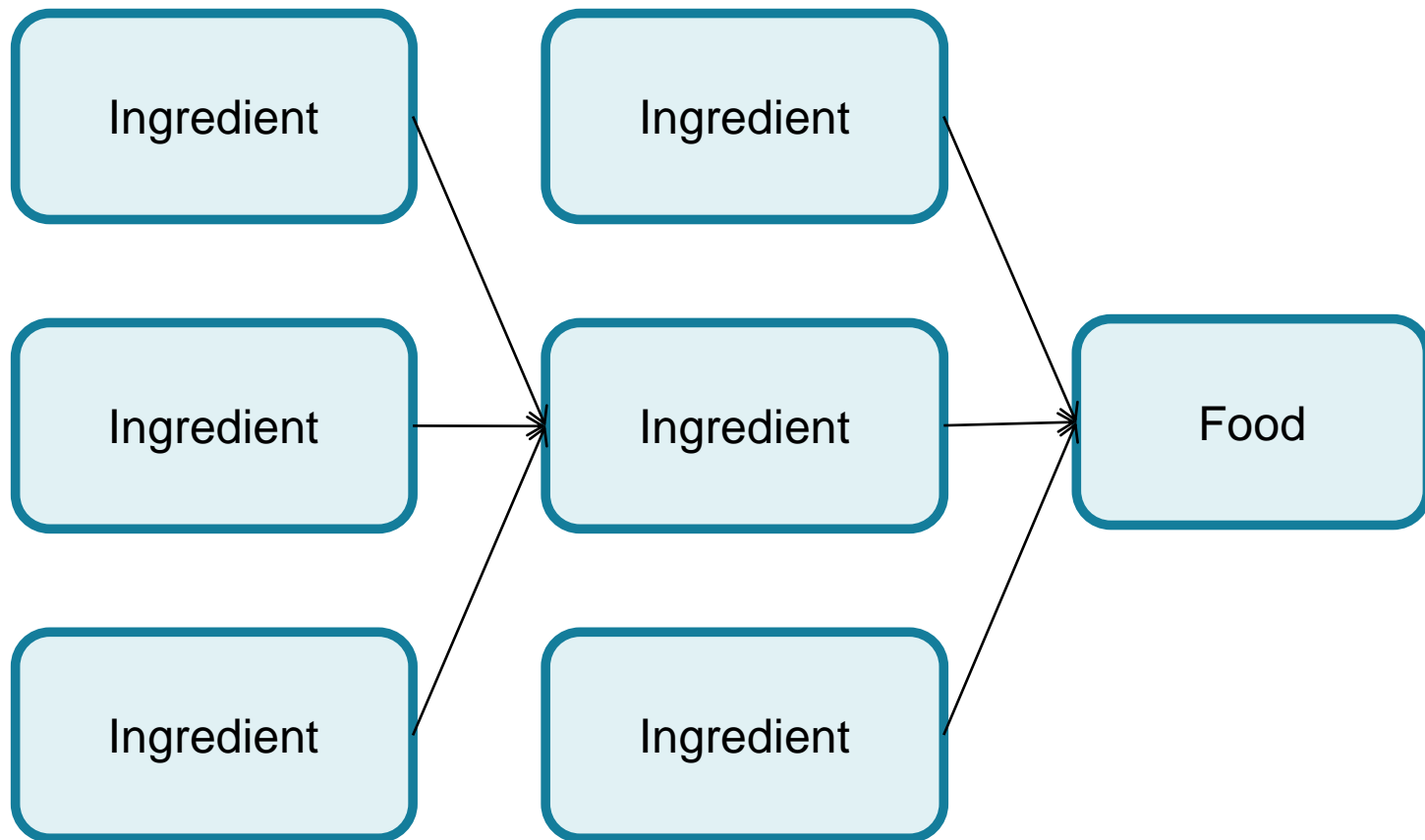
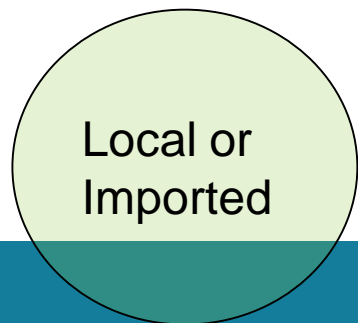
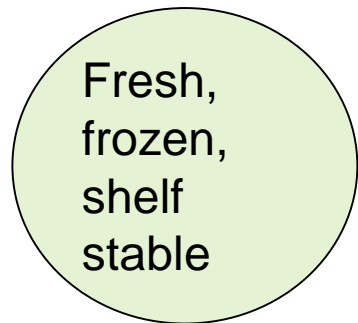
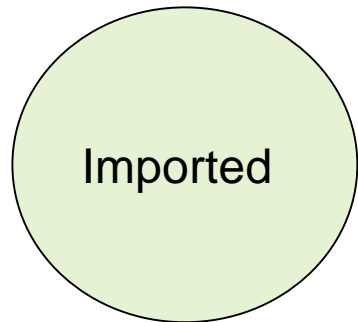
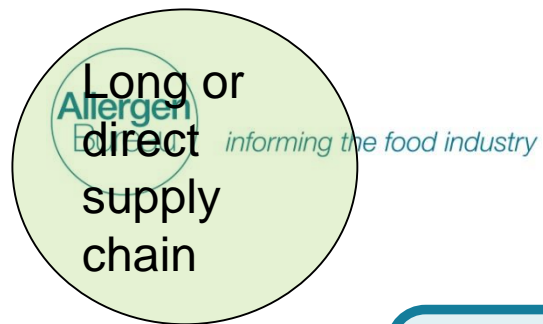
*informing the food industry*

# Best Industry Practice in Supply Chain Validations

# Why should the food industry manage food allergens?

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





## 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



## AFGC Product Information Form (PIF) v6.0

- ~ a tool developed by the food industry in Australia and New Zealand to obtain and share information in a consistent and standardised manner
- ~ Version 6.0 will be hosted on business – to- business software
- ~ Versions for samples, flavours, ingredients and retail ready products

**HELPING INDUSTRY  
TURN DATA INTO  
INFORMATION.**



**A F G C  
Authorised  
Food Data  
System®**

# Unexpected Allergens in Food

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

## Unexpected Allergens in Food



Soy Sauce	Does it contain <b>wheat</b> (in addition to <b>soy</b> )?
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. <b>wheat</b> , maize, <b>soy</b> , <b>egg</b> ?
Stabilisers	What are they derived from (e.g. <b>soy</b> , <b>egg</b> )?

## 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

Allergen  
challenges in the  
manufacturing  
environment

Raw  
materials

Scheduling

Processing  
aids

Cross  
contact  
allergens

Product  
development

Right label  
right pack

Rework

Cleaning

Allergen  
declared  
on label

Processing  
environment

Production  
staff

Training and  
communication

Human  
error

Processing  
equipment

Processing  
design

## 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

# The VITAL<sup>®</sup> Program





## 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**

# Voluntary Incidental Trace Allergen Labelling

The VITAL<sup>®</sup> (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



## The VITAL<sup>®</sup> 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]

## Why do allergen risk assessment?

Carrying out a VITAL<sup>®</sup> 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



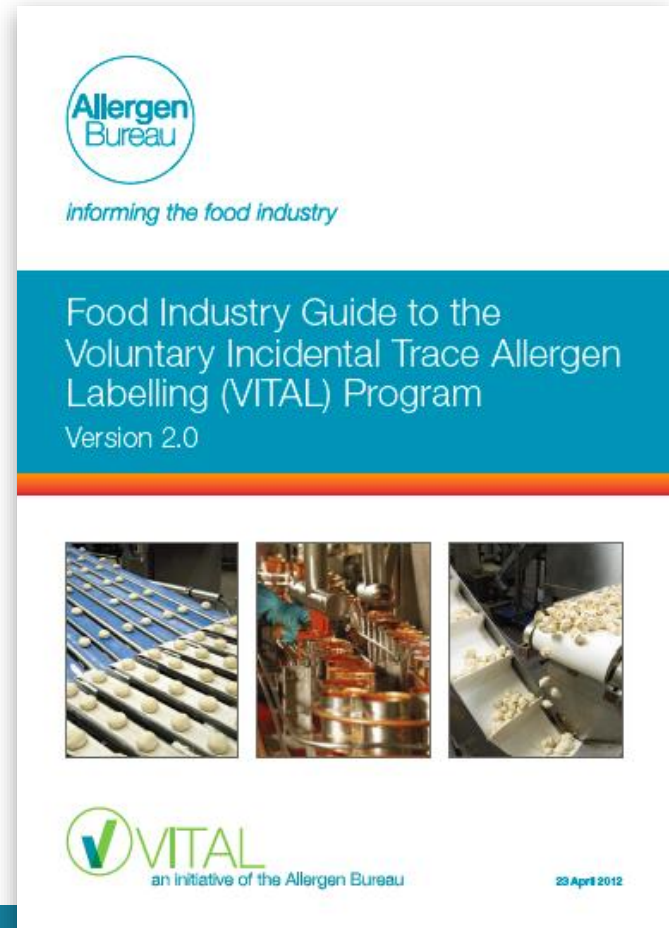
Allergen risk assessment  
contributes towards due diligence

## The VITAL<sup>®</sup> Program must be part of ...

An established allergen management plan

which includes...

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



# The VITAL<sup>®</sup> Program tools

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



## Imagine a world without VITAL<sup>®</sup>

- ~ 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

## 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.





## The VITAL<sup>®</sup> 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

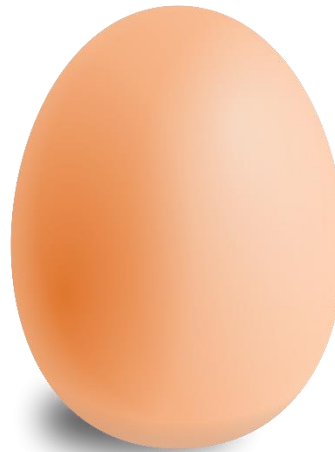
# The key concepts of the VITAL<sup>®</sup> Program

## Overview

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

## 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

## What is the science behind VITAL<sup>®</sup>?

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

## The VITAL<sup>®</sup> 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





informing the food industry

Reference  
Doses are  
available  
from the  
Allergen  
Bureau  
website



an initiative of the Allergen Bureau

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

## Reference Dose

Only applicable for the allergens within the VITAL<sup>®</sup>  
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

## 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?





## Action Levels

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



**Action Level transition point\*** (ppm) =

**Reference Dose** (mg)

X

**1000**

**Reference Amount** (g)

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

# 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.**

## Example ~ Calculating Action Levels for product with peanut cross contact

Peanut Reference Dose = 0.2 mg protein

**5g** Reference Amount  
or Serving Size:

(Transition =  $0.2 \times 1000/5 = 40\text{ppm}$ )

**Action Level 1** : <40ppm

**Action Level 2** :  $\geq 40\text{ppm}$

**50g** Reference Amount  
or Serving Size:

(Transition =  $0.2 \times 1000/50 = 4\text{ppm}$ )

**Action Level 1** : <4ppm

**Action Level 2** :  $\geq 4\text{ ppm}$

# Example of a VITAL<sup>®</sup> 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			
Crustaceae	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			



informing the food industry

# VITAL<sup>®</sup> Online



FEATURES

PRICING

ABOUT

SUPPORT

REGISTER

SIGN IN

## Welcome to VITAL<sup>®</sup> Online

VITAL Online is an improved and user-friendly, web-based update of the Allergen Bureau VITAL<sup>®</sup> 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



Support for the development of VITAL<sup>®</sup> Online has been provided by Food Innovation Australia Ltd (FIAL) through the SME Solution Centre program. [www.fial.com.au](http://www.fial.com.au)





informing the food industry

# VITAL<sup>®</sup> Online

[RECIPES](#)[INGREDIENTS](#)[PROCESSING PROFILES](#)[REPORTS](#)

## Dashboard

Welcome Georgina!

### Recipe quick links

[VIEW ALL](#)

RECIPE NAME	ACTIONS
Frozen Mango Recipe code: FROZMANGO	<a href="#">VIEW</a> <a href="#">EDIT</a> <a href="#">COPY</a> <a href="#">DELETE</a>
Apple Pie Recipe code: PAL007	<a href="#">VIEW</a> <a href="#">EDIT</a> <a href="#">COPY</a> <a href="#">DELETE</a>
Flourless Chocolate Cake Recipe code: Cake1	<a href="#">VIEW</a> <a href="#">EDIT</a> <a href="#">COPY</a> <a href="#">DELETE</a>

### Account details

<b>Organisation</b>	VITAL User Group
<b>Organisation created</b>	28 Apr 2015, 9:03 a.m.
<b>User accounts</b>	10 users in this organisation.
<b>Last login</b>	20 Sep 2017, 10:53 p.m.

### VITAL Action Level Grid

Create a VITAL Action Level Grid report.

[CREATE](#)

# Create a new recipe

## Create recipe

Recipe name \*

Recipe code \*




Reference Amount \*




£



Ingredient intended for further processing

Reference Amount not applicable

E.g. Finished Product Serving Size.

Reference Amount assumptions \*



Legislation \*

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.

NEXT STEP



informing the food industry

# 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)





informing the food industry

## Enter the allergen information for RM4

### Add a new ingredient ×

Name \*

Dark Compound Chocolate

Reference code \*

RM4

CANCEL

ADD

☒ Peanut

☐ Intentionally added

Cross contact allergen

☒ Particulate ☐ Readily dispersible form

☐ Molluscs

☐ Sesame

☒ Soy

☒ Intentionally added

Cross contact allergen

☐ Particulate ☐ Readily dispersible form

Assumptions \*



Supplier specification ABCDEF ddmmyy|





informing the food industry

+ ADD CROSS CONTACT

HA1 Honey Almond Cake >

## HA1 Honey Almond Cake

RENAME

REMOVE

### RV1 Raw Vegan Cake

RENAME

REMOVE

#### Cross contact allergens due to processing

+ Cereals containing gluten

+ Tree nuts

☐ Crustacea

☐ Eggs

☐ Finfish

☐ Milk

☐ Peanut

☐ Molluscs

☒ Sesame

☒ Particulate ☐ Readily dispersible form

☐ Soy

#### Cross contact allergens due to processing

+ Cereals containing gluten

- Tree nuts

☒ Almonds

☐ Particulate ☒ Readily dispersible form

Hang up quantity \*

2000

g

% Almonds or Almonds  
component in hang up

40

%

% protein in Almonds or  
Almonds component \*

20.4

%

Amount of Protein in Hang Up

163200

mg

Batch size exposed to hang up \*

200

kg

Protein from this cross contact  
source

816

ppm

Cumulative amount

960

ppm

Action Level Transition Point

1.25

ppm

**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	

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

## Example of allergen labelling using VITAL<sup>®</sup>

Ingredient List

Allergen  
Summary  
Statement



The VITAL  
Precautionary  
Statement

Water, potato, carrots, celery,  
brown rice, **oats**, **peanut** oil, yeast  
extract (**barley**).

**Contains cereals containing  
gluten, peanut.**

**May be present: wheat.**

## 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
------	-----	-------------	-------------	--	-----------	----------------

## 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	





*informing the food industry*

## VITAL<sup>®</sup> 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



*informing the food industry*

### VITAL<sup>®</sup> Online Exercises and Scenarios

August, 2015



## Allergen labelling using the VITAL<sup>®</sup> 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

## VITAL<sup>®</sup> 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**

# VITAL<sup>®</sup> 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

*informing the food industry*

## VITAL<sup>®</sup> Best Practice Labelling Guide

(Australia and New Zealand)



## 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

# Allergen Bureau Management

## Allergen Bureau ('Not for Profit')

### The Board of Directors

- ~ Kirsten Grinter (Nestlé)
- ~ Robin Sherlock (DTS)
- ~ Julie Newlands (Unilever)
- ~ Karen Robinson (Invited Director)
- ~ David Henning (Invited Director)



### Our support network

- ~ VITAL<sup>®</sup> Coordinator /support (Georgina Christensen & Lisa Warren)
- ~ Technical expertise (Simon Brooke Taylor & Lyn Davies)
- ~ VITAL<sup>®</sup> Scientific Expert Panel (VSEP)

### Funded Secretariat