

**March 2015**

Technical Evaluation for Labelling Review

Recommendation 6 – Food safety labelling elements

and

Recommendation 47 – Embolden warning and advisory statements and allergen declarations

# Executive summary

In 2009, the then Australian and New Zealand Ministerial Council for Food Regulation (now the Australia and New Zealand Ministerial Forum on Food Regulation (Forum)) agreed to proceed with a comprehensive independent review of food labelling law and policy. An expert panel, chaired by Dr Neal Blewett, AC, undertook the review and the panel’s final report, *Labelling Logic: Review of Food Labelling Law and Policy (2011)* (Labelling Logic)was publicly released in January 2011.

Recommendation 6 from Labelling Logic states: *That the food safety elements on the food label be reviewed with the aim to maximise the effectiveness of food safety communication.*

In the government response to recommendation 6, the Forum asked FSANZ to undertake a technical evaluation and provide advice on the food safety elements on food labels. The government response stated that advice from FSANZ will assist the Forum *to fully consider the expected benefits and cumulative impacts of possible changes to mandatory labelling requirements prior to proposing any amendments to the existing labelling requirements in the Food Standards Code, noting that food safety is the most critical message to communicate to consumers.*

Recommendation 47 from Labelling Logic states: *warning and advisory statements be emboldened and allergens emboldened both in the ingredients list and in a separate list.*

In responding to recommendation 47, the Forum asked FSANZ to *undertake a technical evaluation and provide advice, including advice on the benefits of mandatory requirements compared with the cost burden imposed by design limitations.* The Forum also noted its links with recommendation 6 and stated that *it is appropriate for FSANZ to provide technical evaluation and advice to the Forum, in the context of considering recommendation 6.*

In response to the Forum’s request for technical evaluation and advice with respect to recommendations 6 and 47, FSANZ has:

* identified existing requirements in the *Australia New Zealand Food Standards Code* (Code) and available guidance provided for the food industry relating to mandatory food safety label elements
* compared regulatory requirements in Canada, the United States of America and the European Union relating to mandatory food safety label elements with those in the Code
* identified sources of food safety related information available to consumers, other than that on food labels
* commissioned two separate literature reviews on the impact of format and the content on consumer use and understanding of food safety label elements (refer to Supporting Documents 1 and 2)
* reviewed the Australian and New Zealand literature on consumers’ responses to allergy labelling on foods (refer to Supporting Document 3)
* considered the impacts of the format and content of food safety label elements on consumers’ attention, knowledge and responses
* considered the potential benefits and direct costs of changing labels of packaged foods if recommendation 47 was to be implemented.

The key findings from this report are as follows:

* The regulatory requirements relating to mandatory food safety label elements in the Code are broadly comparable with requirements in Canada, the United States of America and the European Union.
* A review of the literature indicates that date marking is important to Australian and New Zealand consumers. There was some degree of confusion in the correct interpretation of ‘best before’ and ‘use by’ date marking, however, further education could assist.
* There were high levels of reported awareness and moderate levels of reported use of directions for use and storage on food labels. There are a number of education initiatives and related materials targeted at consumers to support food safety related labelling and provide additional food safety information.
* Limited evidence regarding consumer understanding of directions for use and storage and warning and advisory statements in Australia and New Zealand was found.
* A 2008 survey identified that food labels were not easy for people to use and understand when avoiding allergens. Australian and New Zealand consumers reported a number of issues including difficulty in finding or reading allergen declarations, inconsistent labelling, the use of many names for the same thing, and precautionary labelling generally.
* The Australian Food and Grocery Council (AFGC) Allergen Guide, which includes recommended allergen labelling formats for food businesses to adopt (consistent with recommendation 47) and the VITAL system, which supports precautionary allergen labelling, were both launched in 2007. Uptake of these recommendations may have caused changes in the labelling of food allergens by food manufacturers since the 2008 consumer survey; however the extent of uptake across the food supply is unknown.
* In some specific cases, there were reports of consumers having difficulty in finding or reading information on food labels. The literature indicates that to be used by consumers, food safety label elements need to be able to cut through the surrounding text and be noticed. The various approaches to make food safety label elements more noticeable (emboldening, larger font, colour, contrast) could assist consumers in finding the information they need.
* The Code currently requires mandatory information on food labels to be legible and prominent such as to afford a distinct contrast to the background. Reasons for having general legibility criteria in the Code include the recognition that legibility can be optimised using a number of effective combinations of criteria and that regulations should be no more prescriptive than is necessary to protect public health and safety while providing maximum flexibility for food businesses.
* Many of the aspects of format identified in the literature to be of relevance to consumers have been included in the FSANZ user guide for Standard 1.2.9 – Legibility Requirements, guidance on allergen labelling provided by the AFGC and in best practice advice/guidance documents available overseas.
* The costs of changing food labels for packaged foods would depend on the extent of labels requiring change. Should a regulatory change be considered, a more thorough assessment of all costs and benefits would be required in order to satisfy the Office of Best Practice regulatory impact statement requirements.

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**Supporting documents**

The following documents used to prepare this Report are available on the FSANZ website at [www.foodstandards.gov.au/labellingreview](http://www.foodstandards.gov.au/consumer/labelling/review/pages/default.aspx)

SD1 Mercer R, Young M, Rimpeekool W, Marshall A, Hector D, Dickson J, Phillips R (2013) Literature review on the impact of label format on consumers’ attention and comprehension for mandated label elements. Report prepared for Food Standards Australia New Zealand by *instinct and reason*, Canberra, Australia

SD2 Quigley and Watts Ltd (2014) The impact of food safety label elements on consumers. A literature review prepared for Food Standards Australia New Zealand. Wellington: Food Standards Australia New Zealand

SD3 FSANZ (2015) Rapid evidence assessment on consumer understanding, attitudes and behaviour with respect to food allergen labelling. Food Standards Australia New Zealand, Canberra

# 1 Introduction

In 2009, the then Australian and New Zealand Ministerial Council for Food Regulation (now the Australia and New Zealand Ministerial Forum on Food Regulation (the Forum)) agreed to a comprehensive independent review of food labelling law and policy. An expert panel, chaired by Dr Neal Blewett, AC, undertook the review and the panel’s final report, *Labelling Logic: Review of Food Labelling Law and Policy (2011)* (Labelling Logic), was publicly released on 28 January 2011 (Blewett et al. 2011).

The subject matter for recommendations 6 and 47 from Labelling Logic overlaps. In the government response to Labelling Logic, the Forum stated that it is appropriate for FSANZ to undertake a technical evaluation and provide advice to the Forum on recommendation 47 in the context of considering recommendation 6. This report therefore addresses both recommendations.

## 1.1 Recommendation 6

Recommendation 6 from Labelling Logic states: *That the food safety elements on the food label be reviewed with the aim to maximise the effectiveness of food safety communication.*

The expert panel provided an analysis to support this recommendation, including that:

* confusion and misinterpretation of some of the food safety label elements were apparent in public submissions
* the terms ‘best before’ and ‘use by’ appear not to be clearly understood
* some organisations have made available information about date marking, but the coverage or effectiveness of such education initiatives is unknown
* limited evaluations of either the effectiveness of the food label to communicate food safety information or of maximising the effectiveness of food safety communication, including the food label, have been reported
* in terms of directions for use and storage, limited guidance is provided in Standard 1.2.6 – Directions for Use and Storage of the *Australia New Zealand Food Standards Code* (Code), with regard to the extent and format of such instruction.

The government response to the recommendations in Labelling Logic was publicly released in December 2011[[1]](#footnote-1). In relation to recommendation 6, the Forum noted that the recommendation proposes that the food safety elements of the label be considered at a technical level to ensure consumers’ ability to access relevant information. Given the analysis presented by the review panel, the Forum considered there was justification to fully investigate and characterise the issues.

The Forum asked FSANZ to undertake a technical evaluation and provide advice on the food safety elements on food labels. The government response stated that advice from FSANZ will assist the Forum *to fully consider the expected benefits and cumulative impacts of possible changes to mandatory labelling requirements prior to proposing any amendments to the existing labelling requirements in the Food Standards Code, noting that food safety is the most critical message to communicate to consumers.*

### 1.1.1 Objectives

The objectives for this project with respect to recommendation 6 were to develop a technical evaluation and provide advice on consumers’ ability to access relevant food safety information. The technical evaluation investigates and characterises the issues associated with consumer understanding, attitudes and behaviour related to mandatory food safety labelling elements, taking into account:

(a) format and presentation

(b) wording.

An overview of the availability of food safety communications more broadly than the food label has also been included.

For the purposes of this project, food safety labelling elements were identified as the following mandatory labelling requirements in the Code:

* all mandatory substance declarations prescribed in Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations (e.g. allergens such as fish and egg)
* advisory statements
* warning statements
* directions for storage
* directions for use
* date marks.

Although ‘best before’ date marks are not required on food labels for reasons of food safety, they were included in the scope of the project due to possible consumer confusion with date marking terms in general.

## 1.2 Recommendation 47

Recommendation 47 from Labelling Logic states: *warning and advisory statements be emboldened and allergens emboldened both in the ingredients list and in a separate list.*

Recommendation 47 was intended to reflect the public health risk associated with warning and advisory statements and allergen declarations. The expert panel noted in Labelling Logic that putting these statements and allergen declarations in bold type will enable consumers seeking this information to quickly locate it.

In responding to recommendation 47, the Forum noted this recommendation and asked FSANZ to *undertake a technical evaluation and provide advice, including advice on the benefits of mandatory requirements compared with the cost burden imposed by design limitations.*

### 1.2.1 Objectives

The objectives for this project with respect to recommendation 47 were to develop a technical evaluation and provide advice that identifies and considers:

1. any potential implementation and design limitations
2. benefits to consumers
3. potential costs to industry of mandating the bolding of warning statements and advisory statements, as well as allergen declarations in both the ingredient list and a separate list.

## 1.3 Other relevant recommendations

Recommendations 6 and 47 are two of several recommendations intended to improve the effectiveness of labelling in communicating important information relating to food safety. A summary of the relevant recommendations is at Attachment A.

## 1.4 Relevant Australian and New Zealand labelling requirements

The main labelling requirements for food sold in Australia and New Zealand in the Code [[2]](#footnote-2) relevant to this paper are in the following standards:

* Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations
* Standard 1.2.5 – Date Marking of Food
* Standard 1.2.6 – Directions for Use and Storage
* Standard 1.2.9 – Legibility Requirements.

The general requirement for a food for retail sale to bear a label is in clause 2 of Standard 1.2.1 – Application of Labelling and Other Information Requirements. There are some exemptions from this requirement, such as for unpackaged food and food that is made and packaged on the premises from which it is sold (subclause 2(2)). Where there is an exemption, certain information must still be provided to the consumer.

FSANZ has developed user guides to provide an overview for food businesses and other users of the Code on the requirements of the labelling standards. The user guides, unlike the standards, are not legally binding.

Further information about the labelling standards and associated user guides is provided in the relevant subsections for each labelling element in section 3 of this report.

## 1.5 Comparison of international requirements

A summary of requirements for mandatory information with respect to food safety on food labels in Canada, the United States of America (USA) and the European Union (EU), along with the requirements for Australia and New Zealand is at Attachment B. Information is also included in the following sections where relevant. Provisions for the EU applied from

13 December 2014.

# 2 Approach

In addressing the objectives outlined above for both recommendations, FSANZ has:

* identified the existing requirements in the Code and available guidance provided for food industry relating to mandatory food safety label elements
* compared regulatory requirements in Canada, the USA and the EU relating to mandatory food safety label elements with those in the Code
* identified sources of food safety related information available to consumers, other than that on food labels
* commissioned two separate literature reviews on the impact of format and the content on consumer use and understanding of food safety label elements (refer to SDs 1 and 2)
* reviewed the Australian and New Zealand literature on consumers’ responses to allergy labelling on foods (refer to SD 3)
* considered the impacts of the format and content of food safety label elements on consumers’ attention, knowledge and responses
* considered the potential benefits and direct costs of changing labels of packaged foods if recommendation 47 was to be implemented.

The technical evaluations for recommendations 6 and 47 are in section 3 of this report. Section 3.1 provides an overview of a model that can be used to frame the communication of food safety label elements to purchasers and consumers. Section 3.2 addresses the formatting of food labels and sections 3.3-3.6 address each of the food safety label elements separately. Additional information relevant specifically to recommendation 47 is provided in section 3.7.

# 3 Analysis

## 3.1 Communicating food safety information from labels

Food safety information is provided in order for consumers to have the necessary information to enable them to understand the risks associated with a particular food and, if necessary, modify their behaviour to manage the risks. Food safety information on food labels is risk communication and as such, seeks to inform and support appropriate behaviours. Ideally, the label works through a transfer of information from the label to the consumer who responds through change or moderation of their behaviour so as to ameliorate the risk. That is, food safety labelling seeks to persuade consumers to behave in a particular way with regard to food, for example, to not consume a food after it passes its use by date; to ensure a food remains frozen before cooking; or to be aware that a food contains allergens and should not be consumed by those who are allergenic. The last example highlights that not all food safety labelling is necessarily relevant to all consumers; rather the characteristics of consumers may determine the relevance of any individual food safety label element.

Mercer et al. (2013), in their literature review on the impact of label format on consumers’ attention and comprehension of mandated label elements (SD1), identified a number of theoretical frameworks and conceptual models that have been used in the academic literature. Mercer et al. selected the Attention, Knowledge and Compliance (AKC) model to frame the communication of food safety label information to purchasers and consumers of packaged food products.

The AKC model has been used as a simplified model for conceptualising the consumer response to warnings (e.g. Wogalter and Laughery 1996; Wogalter et al. 1999; Laughery and Wogalter 2014). This is a three part model highlighting an attention stage, a knowledge stage and a compliance stage.

**Attention stage:** Consumers must have their attention drawn to the food safety label element. As each element on a food label is competing with the rest to gain the attention of consumers, the food safety label elements need to be able to ‘cut through’ to be noticed. Attention is the process through which information gained by the senses is filtered to remove irrelevant information. The information left is then made available for other cognitive processes. In the context of food labelling, sight is likely to be the primary sense used. Increasing the visual salience of food safety label information can assist in drawing consumers’ attention to it.

**Knowledge stage:** This includes the reading and understanding of the label element. Once a food safety label element is noticed, the consumer must be able to read and understand it. Consumer and label characteristics will influence the extent of reading and comprehension that can occur. The size of text, contrast with background and other detail on the label, colour and formatting will influence the ability of consumers to read food safety information, while existing knowledge, literacy and motivations will influence their comprehension of the information. Consumer characteristics will also influence the comprehension of the label information and its evaluation and assessment. Evaluation and assessment may draw on consumers’ knowledge about the information, their previous experiences, their motivations and goals, and their values, beliefs and attitudes. Depending on the nature of the decision to be made, greater or lesser cognitive effort may be involved in this process and other factors may also impact such as affect and mood (Loken 2006).

**Compliance stage:** Finally, the compliance stage is focussed on behavioural compliance with the intent of the label. For food safety labelling in the context of this report, this could simply involve maintaining a current behaviour or it may induce some alternative behaviour.

In this assessment of food safety label elements, the attention stage is particularly important, as without noticing a label element, consumers are unable to respond to its messages. Of course this assessment may have occurred historically and need not be repeated every time a food product is encountered. Section 3.2.5 briefly outlines the features of labelling that the literature suggests can enhance its ability to grab consumers’ attention. This is applicable to all the mandatory food safety labelling elements considered in this report. The particular content of food safety messages and their impact on consumers, that is consumers’ ability to understand and use the information to respond in a behaviourally appropriate manner, is considered in the context of each of the food safety label elements in the relevant sections of this report.

## 3.2 Format of food labels

### 3.2.1 Current requirements in the Code

Standard 1.2.9 – Legibility Requirements sets out the format and presentation requirements for labelling elements that are mandatory in the Code, including the food safety labelling elements that are within the scope of this report. Standard 1.2.9 requires that the mandatory information on a food label is legible and prominent such as to afford a distinct contrast to the background, and is in the English language. Type size is prescribed for warning statements and for country of origin labelling of unpackaged foods (Standard 1.2.11 – Country of Origin Labelling) only. There is no requirement for label text to be emboldened or highlighted in any other way. The recommendation (47) that advisory statements, warning statements and food allergens are emboldened on food labels is discussed in section 3.7.

Reasons for having general legibility criteria in the Code rather than more prescriptive formatting requirements include the recognition that legibility can be optimised using a number of effective combinations of criteria and that regulations should be no more prescriptive than is necessary to protect public health and safety while providing maximum flexibility for food businesses.

### 3.2.2 Guidance for industry

The FSANZ user guide for Standard 1.2.9 includes suggestions of ways to help make information on a label as easy to read as possible (FSANZ 2013a). For example, factors affecting legibility, suggestions for improving legibility, ways to make information noticeable and suggestions for the positioning of information are included. The user guide suggests that important information can be made more prominent by, for example, highlighting it using contrasting colours or using larger print size or other distinctive print, provided that doing so does not constitute misleading or deceptive conduct.

The Australian Food and Grocery Council (AFGC) has a *Code of Practice for Food Labelling and Promotion* available on its website (AFGC 2011). Some food businesses have signed up as signatories to the Code of Practice. The food labelling aspects currently covered by the Code of Practice are the Daily Intake Guide (DIG) labelling scheme, date marking and allergen labelling. With respect to formatting of food labels, the Code of Practice includes recommended allergen labelling formats for food businesses to adopt, noting that the Code does not specify the format of allergen labelling (see section 3.7 for further information).

### 3.2.3 Codex Alimentarius requirements

The Codex Alimentarius Commission, established by FAO and WHO, develops harmonised international food standards, guidelines and codes of practice to protect the health of the consumers and ensure fair practices in food trade. The Commission also promotes coordination of all food standards work undertaken by international governmental and non-governmental organisations.

A brief reference to the presentation of label information is included in some Codex Alimentarius standards and guidelines on food labelling. For example, the *General Standard for the Labelling of Prepackaged Foods* (Codex 1985) states that:

* statements *shall be clear, prominent, indelible and readily legible by the consumer under normal conditions of purchase and use*
* *where the container is covered by a wrapper, the wrapper shall carry the necessary information or the label on the container shall be readily legible through the outer wrapper or not obscured by it*
* *the name and net contents of the food shall appear in a prominent position and in the same field of vision.*

These provisions apply to allergen declarations; there are no additional formatting requirements for declaring allergens.

In addition to the points noted above, the *General Standard for the Labelling of Food Additives when Sold as Such* (Codex 1981)also includes reference to the type size of the name of the food additive in relation to the most prominent printed matter on the label.

### 3.2.4 Comparison of requirements in Canada, the USA and the EU with those in Australia and New Zealand

In contrast to the requirements in the Code, regulations in the USA and EU include minimum type size for packages of specified size. In Canada and the USA, there are some requirements for the placement of information. Further detail is provided in Attachment B. The requirements for emboldening of allergens on food labels in these countries are outlined in section 3.6.3.

### 3.2.5 Enhancing attention

When viewing a food package, consumers are presented with a complex array of visual stimuli: a range of different textual, numerical and graphical elements in a range of sizes, colours, finishes, typefaces, densities, contrasts and locations. Each element of the food label competes for the attention of the consumer and some elements will more readily gain that attention than others. Those elements that gain attention readily have a high degree of visual salience; those elements stand out from the rest of the information. In an effort to reduce the burden of processing all possible stimuli, a subset of those elements with a high degree of visual salience will receive the attention of consumers. Where a consumer has specific motivations or goals, this will also guide where their attention is directed (e.g. an allergenic consumer confirming the presence or absence of particular allergens). Most label information is likely to go unnoticed unless it has a high degree of visual salience or the consumer is particularly motivated to seek it out.

In their review of the literature on the impact of label format on consumers’ attention and comprehension of label elements, Mercer et al. (2013) identified a number of factors that may contribute to enhancing the visual salience of label elements. Table 1 briefly summarises these factors (see SD1 for further details).

Table 1: Factors enhancing attention

|  |  |
| --- | --- |
| Factor enhancing attention | Explanation |
| shape of enclosing area | enclosing shapes such as hexagons and diamonds may increase attention |
| location | front of pack locations, where interactivity is required, and information on tags may increase attention |
| size | larger in absolute and relative to surrounding information may increase attention |
| colour and symbols | contrasting colour and use of pictograms/graphics may increase attention |
| text direction | horizontal rather than vertical text may increase attention |
| signal words | warning, attention and caution may increase attention |

Similarly, Argo and Main (2004) in their meta-analysis of warning labels found that the presence of ‘vividness enhancing characteristics’ such as pictures, font size, colour, spacing and placement increased the noticeability of warning labels relative to the absence of those characteristics.

As noted in the FSANZ report for recommendation 43 of the labelling review (Perceptible Information Principle), there is a limited evidence base on the impact of format and presentation of mandatory label information on consumer use and understanding. However, mandatory food safety information on food labels (defined as date marking, allergen declarations, warning and advisory statements and storage and preparation instructions) can often be presented in a manner that does not necessarily enhance its visual salience.

Use of the types of approaches that have been shown to improve the visual salience of information on packaging, as summarised in Table 1, could assist in ensuring consumers are made aware that the information is present. Factors such as more prominent location and size of label elements and less clutter would reduce the competition between elements for attention and as such, increase the likelihood that the elements would be noticed. Many of the aspects of format identified in the literature to be of relevance to consumers have been included in the user guide for Standard 1.2.9 and the guidance on allergen labelling provided by the AFGC.

## 3.3 Date Marking

### 3.3.1 Current labelling and information requirements in the Code

A date mark must be provided on most packaged foods (Standard 1.2.5 – Date Marking of Food). A date mark must be in the form of a ‘best before’ date or a ‘use by’ date, although bread with a shelf life of less than seven days may have a ‘baked on’ or ‘baked for’ date instead of a best before date.

A use by date is required when, for health or safety reasons, a packaged food should be consumed before a certain date. The use by date signifies the end of the estimated period after which an intact package of food (if stored in accordance with stated storage conditions) should not be consumed because of health or safety reasons. Food must not be sold after its use by date.

A best before date refers to the end of the period during which the intact package of food will remain fully marketable and retain qualities for which claims have been made. Best before dates therefore provide consumers with a guide as to how long a food can be expected to retain characteristics relating to quality.

There are prescribed forms for declaring date marks on the label of food and alternative date marking systems must not be used. A best before date must use the words ‘Best Before’. A use by date must use the words ‘Use By’. A baked on date must use the words ‘Baked On’ or ‘Bkd On’. There are also requirements for the order in which the day, month and year (as applicable) must be declared and how to declare the date. The date must be expressed in numerical form, except for the month which may be expressed in letters.

Date marks are not required for foods that are exempt from being labelled, for example, unpackaged food.

As well as being important to consumers (see section 3.3.6), date marks are also commonly used by the food industry as a guide to rotating stock, particularly at the retail level. This can play an important role in ensuring that older stock is used or sold first.

State, territory and New Zealand food acts also include requirements for food to be ‘safe’ and ‘suitable’.

### 3.3.2 Guidance for industry

FSANZ provides a user guide to Standard 1.2.5 which gives an overview on the date marking provisions and on whether and how to date mark food (FSANZ 2013b).

With respect to date marking, the scope of the AFGC *Code of Practice for Food Labelling and Promotion* is limited to a guide for manufacturers on how to determine whether their food requires a use by or best before date.

### 3.3.3 Codex Alimentarius requirements

The *General Standard for the Labelling of Prepackaged Foods* currently requires a date of minimum durability (best before date) to be declared, unless otherwise determined in an individual Codex standard (e.g. *The Code of Hygienic Practice For Refrigerated Packaged Foods With Extended Shelf Life* (Codex 1999) requires that labels of low-acid refrigerated foods that are heat treated and are susceptible to outgrowth of pathogenic microorganisms during their extended shelf-life provide a use by date).

The date of minimum durability must be declared by the words ‘Best before…’ where the day is indicated and ‘Best before end...’ in other cases.  These words shall be accompanied by either the date itself or a reference to where the date is given. The day, month and year must be in uncoded numerical sequence except that the month can be indicated in letters in countries where this will not confuse the consumer. In addition to the date of minimum durability, any special conditions for the storage of the food shall be declared on the label if the validity of the date depends on those conditions.

In 2014, the Codex Committee on Food Labelling (CCFL) considered new work on reviewing the *General Standard for the Labelling of Prepackaged Foods* to address issues associated with date marking. The specific issue being addressed is the proliferation of a wide range of date marking terms being used globally, leading to confusion at both the international trade level and at the consumer level. CCFL considers that harmonising date marking at a global level could help address this confusion and that there is potential to reduce food wastage as a consequence of consistent use and understanding of date marking terms. The scope of the review includes consideration of the *General Standard for the Labelling of Prepackaged Foods*, sections 2 – *Definitions relevant to date marking* and 4*.7 – Date marking and storage instructions*. CCFL has discussed differentiating between a date mark for products which may become a health or safety risk by a certain date (namely a ‘Use-by’ type date mark) and a date mark for products where quality, such as taste or appearance, may deteriorate by a certain date but the food not present a health or safety risk (namely a ‘Best before’ type date mark).

### 3.3.4 Comparison of requirements in Canada, the USA and the EU with those in Australia and New Zealand

Australia, New Zealand and the EU require either a ‘best before’ or ‘use by’ date depending on whether or not the food should not be consumed after a certain date because of health or safety reasons, whereas date marking is not generally required on food for retail sale in the USA. Canada requires a ‘best before’ date only.

In Australia, New Zealand, Canada and the EU, the order that the day, month and year are expressed in and whether numbers or letters can be used is prescribed.

Further information is provided in Attachment B.

The Canadian Food Inspection Agency has published a *Guide to Food Labelling and Advertising*[[3]](#footnote-3)*.* The guide is a tool to help industry comply with legislation and includes reference to the requirements for the format/presentation of information on food labels, date marking and allergen declarations. The date marking section indicates that the best before date is not an indicator of food safety, neither before nor after the date and it applies to unopened products only.

### 3.3.5 Consumer education

The FSANZ website provides a fact sheet for consumers on date marking. This fact sheet explains the difference between use by dates and best before dates. Other websites provide similar information, for example, Consumer (NZ)[[4]](#footnote-4), the MPI consumer foodsmart.govt.nz[[5]](#footnote-5) website and various Australian government department websites, e.g. the New South Wales Food Authority[[6]](#footnote-6).

Over recent years, reducing food wastage has been discussed both internationally and in the local media. Issues concerning date marking have been referred to in such discussions. Noting that date marking systems vary internationally, education about the terms currently required in Australia and New Zealand may be of more assistance in reducing food wastage than regulatory changes to current date marking requirements. This is consistent with the work currently being carried out by CCFL (see section 3.3.3) and supported by the following statement in a ‘Toolkit’ produced as part of a global Food Wastage Footprint project*: Legislators (especially in developed countries) have adopted overzealous safety standards for expiration date labelling and are now being asked to revise the relevant regulations, as well as issue clearer and more flexible guidelines for businesses and consumers. The goal is to avoid uncertainty over the meaning of “use-by” and “best-before” dates and, ultimately, reduce the tremendous amount of waste due to the confusion generated among consumers over food expiration dates* (© FAO 2013).

### **3.3.6 Consumer response** to date marking

High proportions of Australians and New Zealanders report reading and using date marking, in particular ‘use by’ dates (Food Safety Information Council 2013). From a 2003 survey, over 90% of Australians and New Zealanders were aware of date marking, with more than 80% using date marking (NFO Donovan Research 2003). More recent data show that date marking continues to be of importance to consumers with over 70% of Australians and New Zealanders reporting looking for ‘best before’ or ‘use by’ dates when purchasing a product for the first time (TNS Social Research 2008). In the 2003 survey there appeared to be a high level of trust in date marking with 53% of respondents trusting date marking and 42% ‘pretty sure’ they trust what date marking says (NFO Donovan Research 2003). However, in international and more recent research, some consumers mistrusted use by dates, seeing them as a mechanism to increase profits through the (unnecessary) disposal of unused food (Watson & Meah 2012). In 2007, less than 1% of Australians and New Zealanders reported unprompted concerns regarding the sale of out of date foods (TNS Social Research 2008).

In the 2003 survey, 45% of Australian and New Zealand respondents reported that date marking was very clear, while those who said it was not clear noted that they ‘couldn’t find it/hidden’ (NFO Donovan Research 2003). It is unclear if the various approaches to date marking in Australia and New Zealand, for example stamped or embossed on packages, invoke different degrees of consumer attention or if consumers were expecting date marking on products that are not required to carry date marking.

While a high proportion of Australians and New Zealanders report their use of date marking, the proportion of those understanding the label element is less, with some degree of confusion between ‘best before’ and ‘use by’ date marking. For example, just under half (44%) of New Zealand and Australian respondents considered a ‘use by’ date as a guide, and that the food was safe to eat after the date had passed (NFO Donovan Research 2003). International data suggest that a minority of consumers appear to consider a ‘best-before’ date as a deadline after which the product should not be consumed (Lenhart et al. 2008, GfK NOP 2009).

However, not all foods are treated equally, with consumers more likely to use ‘use by’ dates on some product categories (e.g. dairy products) over others (e.g. oils, butter, margarine dairy spreads and other fats) (NFO Donovan Research 2003)[[7]](#footnote-7).

## 3.4 Storage instructions and directions for use

### 3.4.1 Current labelling and information requirements in the Code

Directions for use and/or storage are mandatory where the food is of a nature that warrants directions about the use or storage of the food for reasons of health or safety, for example, ‘keep refrigerated’ or ‘cook thoroughly’ (Standard 1.2.6 – Directions for Use and Storage).

A statement is also required of any specific storage conditions to ensure the food will keep for the specified period indicated by the use by date or best before date (clause 6 of Standard 1.2.5).

Certain food product standards in Chapter 2 of the Code prescribe additional requirements for labelling with directions for the use of specific foods. For example, there are labelling requirements for cooking instructions where raw meat/fish has been formed or joined to resemble a cut of meat/cut or fillet of fish using a binding system without the application of heat (clause 6 of Standard 2.2.1 – Meat and meat products and clause 3 of Standard 2.2.3 – Fish and Fish Products).

If the food is unpackaged, it must be accompanied by any directions for use and storage required by Standard 1.2.6.

### 3.4.2 Codex Alimentarius requirements

The *General Standard for the Labelling of Prepackaged Foods* requires that instructions for use, where applicable, shall be included on the label as necessary, to ensure correct utilisation of the food.

### 3.4.3 Comparison of requirements in Canada, the USA and the EU with those in Australia and New Zealand

In Australia and New Zealand, the actual wording of required storage instructions and directions for use is not prescribed. It is the responsibility of the food industry to determine whether such instructions or directions are required (either for directions for user for reasons of health or safety or storage instructions to ensure the food will keep for the period indicated by the date mark) and the wording of such instructions or directions.

In Canada and the USA, the wording of instructions for some foods is prescribed. For example, in Canada some meat products must be labelled with ‘keep refrigerated’ or ‘keep frozen’ as applicable, and mechanically tenderised beef must be labelled with ‘Cook to a minimum internal temperature of 63oC (145oF).’ and (in the case of steak) ‘Turn steak over at least twice during cooking.’ In the USA, the introductory text of some instructions for use must be in capital letters and bold type, e.g. ‘**SAFE HANDLING INSTRUCTIONS**: To prevent illness…’.

The EU has more flexible requirements, similar to Australia and New Zealand, i.e. instructions for use are needed where it ‘would be difficult to make appropriate use of the food in the absence of such instructions’. The EU specifically requires storage conditions and/or time limit for consumption for the food after opening, to be indicated where appropriate.

### 3.4.4 Consumer education

There are many resources about storing and preparing food safely that are available to both the general public and those providing education, such as health professionals and teachers. Some examples are described below.

The Australian Food Safety Information Council website[[8]](#footnote-8) includes a number of food safety tips, including videos, e.g. ‘Shopping and Storage Food Safety’. Throughout the year, the Australian Food Safety Information Council actively promotes food safety through the distribution of information directly in response to requests from individuals and organisations and at food safety, educational, health and general safety conferences, exhibitions and expos.

Guideline 5 of the Australian Dietary Guidelines is ‘Care for your food; prepare and store it safely’[[9]](#footnote-9).The dietary guidelines apply to all healthy Australians and are for use by health professionals, educators, government policy makers, the food industry and other interested parties. They include practical considerations for guideline 5 and guidance on how the guideline can be put into practice.

Guideline 6 of the New Zealand Food and Nutrition Guideline Statements for Healthy Adults is to ‘Purchase, prepare, cook and store food to ensure food safety’. The Ministry of Health has published a number of documents for the general public based on the guideline statements, which include practical information about food safety, for example, the booklet ‘Eating for Healthy Adults’[[10]](#footnote-10).

Australian government departments include food safety advice for consumers on their websites and provide a range of food safety related resources for consumers and schools.

The New Zealand Ministry for Primary Industries consumer foodsmart.govt.nz website has extensive food safety related information including tips to help consumers avoid getting sick from eating food and information on handling high risk foods.

There are various mobile apps available to assist supermarket shoppers. For example, the GS1 smart phone app includes a category for storage and preparation instructions/detailed instructions on how to store or prepare specific food products, e.g. for canned baked beans, the app advises to refrigerate unused contents in a sealed, non-metallic container and use within three days of opening.

FSANZ has some food safety information available on its website, aimed at consumers. For example, the fact sheet *Canned Foods: Purchasing and Storage[[11]](#footnote-11)* includes advice about the storage life of canned foods, how to store canned food and how to store the food after opening. Other fact sheets provide detailed preparation and cooking instructions for cassava, bamboo shoots and chicken liver, to assist consumers to make these foods safe to eat.

### **3.4.5 Consumer response** to storage instructions and directions for use

Just under 50% of consumers reported they looked for cooking and storage instructions when purchasing a product for the first time in Australia and New Zealand (TNS Social Research 2008). While earlier research suggests less than 10% of Australian and New Zealand respondents searched for storage and preparation instructions when shopping in an unprompted question, 65% were aware of these elements when prompted (NFO Donovan Research 2003).

In the 2003 survey, 45% of Australian and New Zealand respondents reported they used preparation and storage instructions, with females more likely to use the label element than males (NFO Donovan Research 2003). Sixty-seven percent of Australians reported they complied with cooking instructions in a 2013 survey (Food Information Safety Council 2013). In a subjective assessment on the clarity of storage/preparation instructions in the 2003 survey, 96% of respondents indicated the information was very or fairly clear, and there was a high level of trust in the information with 98% reporting they trust or are pretty sure they can trust the label element (NFO Donovan Research 2003).

In Australia New Zealand surveys, while there are high levels of reported awareness and moderate levels of reported use, international observational studies suggest that fewer consumers actually follow storage and preparation instructions (e.g. DeDonder et al. 2009). A case control study following an outbreak of *Salmonella typhimurium* in South Australia found that reheating chicken nuggets rather than cooking them as directed was the likely source of the outbreak (Kenny et al. 1999).

There is evidence that the food itself also impacts on the extent to which consumers use and or comply with storage and preparation instructions. Not surprisingly, consumers were more likely to use cooking instructions for new or unfamiliar foods (Levis et al. 1996).

### 3.4.6 Role of the food label in providing ‘expanded’ directions for use and storage

In Labelling Logic it was stated that in terms of directions for use and storage, limited guidance is provided in Standard 1.2.6 with regard to the extent and format of such instruction. The panel considered that specific attention should be given to maximising the use of the food label to convey food safety information. The following example of expanded food safety label information from a UK product was provided:

**Storage:** Freeze on day of purchase. Use within one month. Defrost thoroughly before use. Once opened use within 3 days.

**Important:** The product contains raw meat and must be cooked according to the cooking instructions. When handling raw meat, ensure all surfaces, utensils and hands are thoroughly cleaned before and after use to avoid contamination of other foods. Keep raw meats separate from cooked foods, ideally at the bottom of your fridge.

[Note: Cooking instructions were also included on the packet.]

It is noted that Health Canada has recently introduced guidance for labelling of raw ground meat and poultry. The goal of this guidance is to reduce the number of Canadian illnesses related to improper cooking and handling of these products.

The guidance recommends the following five statements appear on food labels under the heading SAFE HANDLING AND COOKING INSTRUCTIONS:

1. Raw ground meat and raw ground poultry may contain bacteria that could cause illness if mishandled or cooked improperly. Do not consume any portion raw.

2. Keep refrigerated or frozen. Thaw in refrigerator or microwave. Separate raw meats from ready-to-eat foods.

3. Cook to a safe internal temperature – ground meat to 71°C (160°F), ground poultry to 74°C (165°F).

4. Thoroughly wash working surfaces, utensils and hands after contact with raw ground meat or raw ground poultry.

5. Refrigerate leftover cooked food within 2 hours.

As noted above, directions for use and/or storage are mandatory in Australia and New Zealand where the food is of a nature that warrants directions about the use or storage of the food for reasons of health or safety. When deemed necessary, specific instructions for the use or storage of specific foods can be prescribed in the Code. Currently, except for a few specific foods (e.g. raw bamboo shoots, raw sweet cassava, infant formula products), it is the responsibility of the supplier of the food to determine exactly what directions for use and storage are appropriate for a particular food.

Food labels are one of many sources of information about food safety for consumers. General food safety related information and information to assist consumers to read food labels is provided by a number of government and non-government organisations in a variety of formats, as outlined in section 3.4.4 above.

## 3.5 Warning and advisory statements

### 3.5.1 Current labelling and information requirements in the Code

#### 3.5.1.1 Advisory statements

Clauses 2 and 5 of Standard 1.2.3 set out mandatory advisory statements that are required on certain foods or when certain substances are present in foods. For example, for milk and beverages made from soy or cereals containing no more than 2.5% fat, a statement to the effect that the product is not suitable as a complete milk food for children under the age of two years is required. Standard 2.6.4 – Formulated Caffeinated Beverages includes requirements for advisory statements in relation to formulated caffeinated beverages.

The specific wording of advisory statements is not prescribed. The Code specifically permits a required statement or information (other than a warning statement) to include words that modify that statement or information, provided they do not contradict or detract from the intended effect (clause 12, Standard 1.1.1 – Preliminary Provisions – Application, Interpretation and General Prohibitions). The FSANZ user guide for Standard 1.2.3 notes that food suppliers may use their own words for advisory statements as long as they convey the intended effect (FSANZ 2014).

If the food is exempt from the requirement to be labelled, advisory statements must be declared on or in connection with the display of the food or declared to the purchaser upon request.

#### 3.5.1.2 Warning statements

A warning statement is a prescribed labelling statement that must be expressed in the exact words and type size specified in the Code. A warning statement is required for royal jelly when presented as a food or for food containing royal jelly as an ingredient (table to clause 3 of Standard 1.2.3), as follows: *This product contains royal jelly which has been reported to cause severe allergic reactions and in rare cases, fatalities, especially in asthma and allergy sufferers.* If the food is exempt from the requirement to be labelled, the warning statement about royal jelly must be provided on or in connection with the sale of the food. Standard 2.6.3 – Kava, requires the warning statements *Use in Moderation* and *May cause drowsiness* on kava.

#### 3.5.1.3 Special Purpose Foods

Warning statements are required for some special purpose foods in Part 2.9 – Special Purpose Foods. For example, the following warning statement is required on formulated supplementary sports foods: *Not suitable for children under 15 year of age or pregnant women: Should only be used under medical or dietetic supervision.*

Other mandatory statements (not referred to as warning statements) are also required by various standards in Part 2.9 for reasons of public health or safety. For example, Standard 2.9.1 – Infant Formula Products, requires a statement indicating that follow-on formula should not be used for infants aged under 6 months.

### 3.5.2 Comparison of requirements in Canada, the USA and the EU with those in Australia and New Zealand

The size of text of warning statements (but not advisory statements) in Australia and New Zealand is prescribed (not less than 3 mm, or 1.5 mm for small packages). There are no additional (to the general legibility requirements) formatting requirements for advisory or warning statements in Australia or New Zealand.

The USA prescribes some warning statements. The text must not be less than 1/16 of an inch in height and the introductory text of warning statements must be in capital letters and bold type, e.g. ‘**WARNING**: This product has…’.

The EU and Canada require some additional labelling statements for specific foods but these are not defined as warning statements.

### **3.5.3 Consumer response** to warning and advisory statements

Unlike other label elements, warning and advisory statements may only be applicable to particular consumers. For example, the advisory statement for milk and beverages made from soy or cereals containing no more than 2.5% fat is only relevant to those purchasing for or caring for children under the age of two years. However, other warning and advisory statements may have broader relevance. The commissioned literature review did not identify much evidence on consumers’ responses to this group of label elements (Quigley 2014 at SD2).

In the 2003 survey, when prompted, approximately 60% of Australian and New Zealand respondents reported they were aware of warning and advisory statements, and 22% reported that they used those label elements (NFO Donovan 2003). High levels of subjective understanding (more than 90% considered the elements clear or fairly clear) and trust (more than 85% trusted or pretty sure they trusted what they said) were reported for warning and advisory statements (NFO Donovan 2003).

From a review of the literature, there was a limited number of studies exploring specific warning or advisory statements (Quigley 2014). In a qualitative study of Australians and New Zealanders, caregivers were shown mock-ups of infant food labels, carrying ‘around 6 months’ on the front and the warning statement ‘not recommended for infants under the age of 4 months’. Caregivers tended to interpret the latter as a warning that there were health or safety issues when solids are introduced to infants before 4 months of age. When caregivers were asked to compare the minimum age (‘around 6 months’) and the warning statement, many participants interpreted the warning statement as suggesting that introduction of solids from 4 months was ‘OK’, but not obligatory. Caregivers were not aware of the warning statement located on the back of the label in small font, and required their attention to be brought to it.

In Australia and New Zealand, products that contain plant sterols are required to have three advisory statements. This includes a statement to the effect that this product may not be suitable for children under the age of five years and pregnant or lactating women. However, despite this advisory statement, only 38% of consumers of plant sterol margarines considered the statement ‘Everybody can eat plant sterol margarine’ to be false, and only 26% considered the statement ‘Plant sterol margarines are not suitable for children’ to be true (FSANZ 2006). The study did not directly test consumers’ comprehension of the advisory statements and it is unclear if the low levels of comprehension are derived from a lack of awareness of the advisory statements, or a misunderstanding of the advisory statements.

## 3.6 Food allergen declarations

### 3.6.1 Current labelling and information requirements in the Code

Standard 1.2.3 sets out the mandatory declarations that must be made when certain substances are present in food, for example, egg, peanuts, milk, cereals containing gluten. There is no requirement for where on the label these declarations are located. If the food is exempt from the requirement to be labelled, the required information must be declared on or in connection with the display of the food or declared to the purchaser upon request.

The FSANZ user guide for Standard 1.2.3 indicates that including these substances in a statement of ingredients would fulfil the declaration requirements (FSANZ 2014). The FSANZ user guide also notes that some manufacturers use a bold font to ensure that the mandatory declaration of certain substances stand out from other substances listed in the ingredient list.

The Code does not require precautionary labelling (e.g. ‘may contain…’) of allergenic substances (see section 3.6.2).

Standard 1.2.4 – Labelling of Ingredients, requires that rather than using the generic name ‘nuts’ in the ingredient list, the specific name of the nut is declared. Instead of the generic name ‘fats or oils’, the specific source name must be declared if the source of vegetable oil is peanut, soy bean or sesame. Likewise, this Standard requires that instead of using the generic name ‘cereal’ or ‘starch’, where the cereal or source of starch is wheat, rye, barley, oats or spelt or their hybridised strains, the specific name of the cereal must be declared in the ingredient list.

### 3.6.2 Guidance for industry

The AFGC *Code of Practice for Food Labelling and Promotion[[12]](#footnote-12)* describes the regulatory requirements in Australia and New Zealand for the mandatory declaration of food allergens and recommended labelling formats. It notes that the Food Standards Code does not specify the format of allergen labelling. The recommended labelling format information is taken from the *Food Industry Guide to Allergen Management and Labelling* (Allergen Guide) (published in 2007)[[13]](#footnote-13). The Code of Practice and the Allergen Guide recommend that all allergen information is grouped together to be easily identified and not hidden amongst other labelling information. They state that a consistent approach in the presentation of allergen information will help allergic consumers more quickly and easily identify foods of concern, helping to minimise accidental consumption of unsuitable foods.

The labelling format recommended includes:

• an ingredient list declaring in bold allergenic substances and their derivatives (according to the foods listed in the Table to clause 4 of Standard 1.2.3) each time they appear

• an allergen summary statement directly below the ingredient list, using the word ‘contains’ and declaring the allergenic foods according to the terms listed in the Table to clause 4 of Standard 1.2.3, in bold

• a precautionary statement using the words ‘may be present’*.* This precautionary statement must be used in conjunction with VITAL® (see below).

More detailed guidance is provided for the ingredient list and allergen summary statements, for example, to declare in bold the allergenic ingredient/component or qualify in bold the ingredients/component according to the allergenic foods listed in the Table to clause 4 of Standard 1.2.3 in the Food Standards Code, e.g. Parmesan cheese (**milk**).

The guidance specifies that in the allergen summary statement, allergenic foods must be declared according to the terms listed in the Table to clause 4 of Standard 1.2.3. Either the term ‘tree nuts’ can be used or the specific name of the nut if the food contains tree nuts. The guidance also specifies that the allergen summary statement must be limited to indicating the presence of allergens in the product and should not be used to indicate other features e.g. ‘Contains 10% milk fat’.

Alternative labelling formats are also suggested when label size constraints and other variables do not allow the use of the recommended labelling format, as follows:

* when an allergen summary statement is present, bolding and qualifying allergenic substances in the ingredient list is optional
* when an allergen summary statement is not present, allergenic substances are bolded and qualified within the ingredient list. With this option, if the name of the ingredient is not in the form listed in the Table to clause 4 of Standard 1.2.3, the allergenic ingredient/component must be qualified, e.g. parmesan cheese (milk).

Precautionary labelling of allergens, e.g. ‘Made in the same premises as products containing…’, is sometimes voluntarily placed on food and provides a source of information for allergic consumers. As noted in section 3.6.1, precautionary labelling is not regulated by the Food Standards Code.

Precautionary labelling in Australia and New Zealand is supported by an industry initiated scheme. The AFGC Allergen Guide includes recommendations for precautionary labelling when VITAL® (Voluntary Incidental Trace Allergen Labelling) is used. VITAL® is an initiative of the Allergen Bureau which allows food producers to assess the impact of allergen cross contact and provide one precautionary allergen labelling statement, i.e. ‘May be present…’. VITAL® was developed to make a single simple standardised precautionary statement available to assist food producers in presenting allergen advice consistently for allergic consumers. The main concept behind the VITAL® system is that precautionary labelling should be applied only to products that have cross-contamination from an allergen that is above a certain concentration.[[14]](#footnote-14)

In response to recommendation 8 of Labelling Logic (that the VITAL® system be explored as a possible supplementary model to manage food label declarations relating to the adventitious presence of allergens in foods), the Forum indicated its support of the current activities of the Allergen Bureau and the recent scientific review of VITAL® and commended the proactive work by industry. The Forum has confirmed that there will be no further work required to action this recommendation.

### **3.6.3 Comparison of requirements in Canada, the USA and the EU with those in Australia and New Zealand**

In Australia and New Zealand, food allergens can currently be declared anywhere on the label and must be legible and prominent to afford a distinct contrast to the background.

In Canada and the USA, food allergens must be declared in the ingredient list or in a ‘contains’ statement after (or adjacent to in the USA) the ingredient list. In Canada, the ingredient list can appear on any panel on the package of food. Bolding of allergens is not required. In the USA, all required statements must be on the principal display panel (main panel that is normally visible when the product is displayed for sale) or the information panel (the panel to the right of the front label panel).

The US Food and Drug Administration (FDA) also provides a labelling guide and a separate guide to food allergen labelling to help industry comply with the regulations. The allergen labelling guide states that the use of bolded text and punctuation within a ‘Contains’ statement is optional and is silent on the use of highlighting in an ingredient list.

In Canada and the USA, the name of the food source of the allergen must be declared (e.g. milk). In the EU, there must be a clear reference to the name of the substance or product causing the allergy or intolerance.

In the EU, allergens are required to be highlighted in the ingredient list but the method for doing this is not prescribed, for example, they could be declared in bold, in contrasting colours, or underlined. A separate ‘contains’ statement repeating the information in the ingredient list is no longer permitted in the EU.

Various guidance documents are available in the EU to assist users to comply with the labelling requirements. These guidance documents contain similar advice with respect to the highlighting of allergens, i.e. while the EU Regulation No. 1169/2011 – Provision of food information to consumers (EU FIC) requires allergens listed in an ingredient list to be highlighted in some manner, that emphasis of allergens may best be achieved by indicating the ingredients concerned in bold in the list of ingredient. They note however, that other ways of emphasis may be used if necessary, e.g. bold in capitals, italics.[[15]](#footnote-15)

The Department for Environment, Food and Rural Affairs (DEFRA) in the UK have released a guidance document[[16]](#footnote-16) on general food labelling requirements and allergen labelling together with national legislation (*The Food Information Regulations 2014 (FIR 2014)*)[[17]](#footnote-17). The FIR 2014 contains national enforcement measures and takes advantage of derogations in relation to the EU FIC. The guidance document provides explanatory information which may help food businesses understand and comply with the EU FIC and the FIR 2014 and states:

*Information about allergens as ingredients may only be presented in the mandatory format (i.e. emphasised within the ingredients list).Thus the information is presented in a common format across food products to avoid consumer confusion.*

*The use of a food allergy/ intolerance warning box which signposts the consumer to the ingredients list, and how allergenic ingredients are emphasised within it, is permitted. For example, food business may wish to include a statement such as ‘Advice: Allergens are emphasised in the ingredients list in bold/with underlining/in red…’.*

*The voluntary inclusion of gluten following the mandatory declaration of a cereal containing gluten is possible. However, the regulation requires that it is the cereal that should be emphasised; for example ‘****barley*** *(gluten)’.*

The UK Food Standards Agency has released two guidance documents[[18]](#footnote-18) to assist food businesses in following allergen labelling and information requirements. These documents state that allergens should be declared with clear reference to name of the allergenic ingredient as listed in the EU FIC Annex II; for example ‘tofu (**soya**)’ or ‘tahini (**sesame**)’.

### 3.6.4 Consumer education

The FSANZ website[[19]](#footnote-19) provides lists of the types of ingredients for consumers to avoid if they are allergic to eggs (e.g. albumin, avidin), fish, milk, peanut, sesame, shellfish, soy, tree nuts and wheat, and examples of products that may contain these. This type of information is also readily available on a number of other Australian and New Zealand websites and in printed form as leaflets etc. Examples of relevant websites include the Australasian Society of Clinical Immunology and Allergy, Allergy and Anaphylaxis Australia, Allergy New Zealand and the NZ Ministry for Primary Industries (MPI) consumerfoodsmart.govt.nz website.

The GS1 smart phone app has a category for viewing allergen declarations for specific food products, with detailed explanations provided by national food and health organisations.

### **3.6.5 Consumer response** to mandatory allergen declarations

FSANZ undertook a rapid evidence assessment on consumer understanding, attitudes and behaviour with respect to food allergen labelling (SD3). The rapid evidence assessment draws heavily on two consumer surveys on food allergen labelling that FSANZ commissioned and is supplemented by other Australian and New Zealand studies. The first FSANZ consumer survey on allergen labelling was undertaken in 2003 (NFO Donovan Research 2004) and was conducted just after the Code became enforceable, while the second was a follow-up survey, conducted in 2008 (TNS Social Research 2009)[[20]](#footnote-20).

Across the general adult population, in a 2008 survey conducted by FSANZ, approximately 23% of Australians and 17% of New Zealanders reported looking for information about allergens when purchasing a food product for the first time. Of those who reported looking at food labels when purchasing food for the first time, more than 20% of Australians and New Zealanders did so because of food allergies (Food Standards Australia New Zealand 2008). Not surprisingly, among those with a food allergy or the guardian or parent of a food allergic child, there are much higher levels of food label reading, with nearly 100% of respondents reporting reading food labels for allergen information (e.g. Hendersonet al. 2003; Zurzolo et al. 2013).

The burden of label reading on those trying to avoid food allergens is high as all foods need checking and many people buying foods check labels every time they purchase a food, even if it is one that has been consumed safely before. The ingredient lists and precautionary labelling tend to be checked when checking for ingredients of concern (NFO Donovan Research 2004; TNS Social Research 2009).

The ease with which people can identify foods that are safe for people with food allergies to consume appears to have increased between the 2003 and 2008 surveys. Forty-three percent of respondents tended to agree with the statement that they had ‘Always been able to find information needed on a label’ in 2008 compared with 32% in 2003.

Between the FSANZ benchmark survey in 2003 and the follow-on survey in 2008, the level of certainty food labels can give to people who buy foods for people with food allergies appears to have improved (see SD3). Similarly, the level of trust in food labels has also increased among this group of consumers, with 66% of respondents indicating they were ‘pretty sure I can trust’ in 2008, compared with 57% in 2003.

While the assessments of trust, certainty and ability to find information have increased between 2003 and 2008, food labels are still not easy for people to use and understand when avoiding allergens. The 2008 survey highlighted some issues related to food allergen labelling. These include: difficulty in finding/reading ingredients or allergen declaration, inconsistent labelling, many names for the same thing, and precautionary labelling generally. Not surprisingly, the types of improvements that consumers suggested seek to rectify these issues, for example emboldening or larger font, using standard English for ingredients, and the use of ‘does/does not contain’ instead of ‘may contain’.

## 3.7 Recommendation 47

Recommendation 47 was to make it mandatory for warning statements and advisory statements, as well as allergen declarations in both the ingredient list and as a separate list, to be in bold type. The Code does not prescribe that allergen declarations and warning and advisory statements are emboldened (or highlighted in any other way). For allergen declarations, the Code does not currently prescribe where on the label these are declared, however, due to the requirements for ingredient labelling, allergens are often declared in the ingredient list.

The AFGC *Code of Practice for Food Labelling and Promotion* (see sections 3.2.2 and 3.6.2) recommends that allergens are declared in bold in the ingredient list and an allergen summary statement is provided directly below the ingredient list. A number of food labels are therefore already labelled in accordance with recommendation 47 with respect to food allergens; however the extent of this voluntary labelling currently, across the food supply is unknown.

In the EU, allergens are required to be highlighted in the ingredient list and a separate ‘contains’ statement repeating the information in the ingredient list is no longer permitted. Canada and the USA do not require emboldening of allergens on food labels. Requirements for warning and advisory statements in Canada, the USA and EU are outlined in section 3.5.2 and for food allergen declarations in section 3.6.3.

If a regulatory change were to be considered to implement recommendation 47 as it relates to food allergens, the terms required to be used to describe the allergens in both the ingredient list and the separate ‘contains’ may need to be clarified, taking into account requirements for ingredient labelling. Other elements that would need further consideration include an assessment of options (other than emboldening) to ensure the text is more prominent than other information on the label, space limitations, and requirements when foods are exempt from providing an ingredient list or when ingredients are exempt from being declared (e.g. processing aids).

In response to the request from the Forum that FSANZ provide advice on the benefits of mandatory requirements compared with the cost burden imposed by design limitations, the potential benefits and costs if recommendation 47 was implemented, are considered below.

### 3.7.1 Potential benefits associated with recommendation 47

Mercer et al. (2013) (SD1) found that various treatments of the text of label elements can enhance the attention that they receive from consumers. The discussion in sections 3.1 and 3.2 highlight the importance of attracting the attention of consumers to the label element as the first stage of consumers’ behavioural compliance or not. The emboldening of warning and advisory statements and allergen declarations would enhance their visual salience. The process of emboldening would create a greater visual differentiation between the emboldened text and the surrounding text (assuming it remains not bold). In doing, so the warning and advisory statements and allergen declarations would be more likely to cut through the remaining text with greater efficiency and attain the awareness of the consumer.

As noted in section 3.5.3 on warning statements, in some particular cases consumers are unaware they exist. The emboldening of such label elements could assist in making them more apparent and available for easier use by consumers. Similarly, in the context of allergen declarations, the surveys of Australian and New Zealand consumers commissioned by FSANZ found that consumers have difficulty in finding/reading allergen declarations. Consumers have suggested that declarations could be improved through emboldening or requiring larger font size.

Recommendation 47 also suggests the inclusion of allergen declarations in a separate list in addition to the ingredient list. Such an approach is likely to further enhance the ability of consumers to find the information as they will have two places to find it. The separate list with a single dedicated purpose is likely to attract even more attention as it could be made to be visually distinct.

### 3.7.2 Costs associated with recommendation 47

In considering the costs associated with emboldening warning and advisory statements and allergen declarations in the ingredient list and in a separate list, FSANZ has only considered the direct cost of changing food labels for all packaged foods. Direct costs represent the majority of costs associated with the recommendation. If a regulatory change was to be pursued, then a more thorough assessment of all costs and benefits would be required in order to satisfy the Office of Best Practice (OBPR) Regulatory Impact Statement (RIS) requirements. Such an assessment would also need to include indirect costs (e.g. administration) on industry, enforcement costs and costs passed on by manufacturers to consumers. This would require consultation with the food industry and surveying of the costs that would be incurred by all stakeholders.

#### 3.7.2.1 General approach to estimating costs of a labelling change

To estimate the direct cost of a labelling change, FSANZ uses a model based on labelling cost data collected by PricewaterhouseCoopers (PwC) (2008 and 2014). The objective of the PwC report (2014)[[21]](#footnote-21) was to provide the Department of Health with updated costs for the Cost Schedule for Food Labelling Changes report prepared for FSANZ in 2008[[22]](#footnote-22). The 2008 report provides a list of the costs incurred in labelling or relabelling food (including beverages) to enable FSANZ to estimate costs when developing cost-benefit analyses and to make an informed assessment of the applicability of labelling costs provided in submissions during industry consultation.

The model breaks down labelling costs into the following components: labelling design, labelling production, proofing, package redesign and labour. It categorises labelling changes into one of three categories (minor, medium and major). A minor change is a change to text and one printing plate only. A medium change is a change to text and/or label layout, change to three printing plates and proofing being required. A major change is a change to text and/or label layout, change to six printing plates, proofing being required and changes to packaging shape/size/design. The model also provides different specific costs depending on the material and packaging type being changed (flexible, fibre, plastic, metal and glass). Costs are also differentiated as labour and non-labour costs. Costs are provided as an average cost per stock keeping unit (SKU)[[23]](#footnote-23) for each material and degree of change (see Table 2 below).

The model does not take into consideration indirect costs such as the write-off of stock in hand, reformulation, product testing, marketing costs or administrative costs. Factors that affect indirect costs are also not part of the model; for example, the costs to a manufacturer can be reduced if the length of a transition period for a labelling change encompasses the normal lifecycle of packaging changes.

Table 2: Direct cost of labelling change in 2014 (AU$)

|  |  |
| --- | --- |
| **Degree of change** | **Average Cost of Packaging Material Change per SKU** |
| **Flexible** | **Fibre** | **Plastic** | **Metal** | **Glass** | **Average per SKU** |
| Minor | $3,749 | $2,982 | $2,484 | $3410 | $1,785 | **$2,776** |
| Medium | $9,490 | $6,285 | $5,690 | $6,237 | $4,954 | **$6,163** |
| Major | $12,295 | $8,246 | $7,555 | $9,971 | $7,205 | **$8,550** |

#### 3.7.2.2 Potential costs associated with emboldening warning and advisory statements and allergen declarations

Mandating the emboldening of warning and advisory statements and allergen declarations is considered a minor change in the PwC categories of labelling change, as it relates to changes to text and one printing plate only. It is assumed that major label redesigns would not be required to embolden warning and advisory statements and allergen declarations. However, there could be some circumstances where the change to labelling represents a medium change in PwC report (changes to text and/or label layout, changes to three printing plates and proofing required) and others where no labelling change is actually required as the warning or advisory statement or allergen declaration is already voluntarily emboldened.

The average cost of a minor labelling change per single SKU is AU$2,776. This is based on the assumption that there are equal numbers of products that require labelling in each type of packaging, i.e. flexible, fibre, plastic, metal and glass packaging. Overall direct costs for the labelling change could be estimated if the total number of SKUs that require amendment are known.

The inclusion of allergen declarations in an additional list to the ingredient list may be a larger change than emboldening the entry in the ingredient list. Such a change could arguably require more extensive revision of the use and arrangement of label space with printing consequences. This could be more in line with the estimates of a medium change to labelling estimated at AU$6,163 per SKU.

FSANZ does not have reliable data upon which to estimate total direct costs. However, available information suggests that a major Australian supermarket stocks around 28,000 SKUs of packaged foods (Woolworths Ltd, pers. com.)[[24]](#footnote-24). Some of these SKUs may already have emboldened allergen declarations as has been recommended as good practice since 2007 in guidelines for allergen management and labelling (AFGC *Food Industry Guide to Allergen Management and Labelling*). Similarly, some manufacturers may have voluntarily emboldened warning and advisory statements on their products. The extent of voluntary emboldening (or otherwise highlighting) allergen declarations and warning and advisory statements on labels across the food supply is not known.

The figures above provide some general indication of the magnitude of the costs that could be incurred with mandating emboldening of warning and advisory statements and allergen declarations. Finally, indirect costs have not been assessed, though such costs might be associated with mandating emboldening warning and advisory statements and allergen declarations. A robust cost benefit analysis would be required to satisfy COAG RIS requirements should a regulatory change be considered.

# 4 Conclusion

**Recommendation 6: *That the food safety elements on the food label be reviewed with the aim to maximise the effectiveness of food safety communication.***

**The key findings from this report for recommendation 6 are as follows:**

* A review of the literature indicates that date marking is important to Australian and New Zealand consumers, with more than 70% reporting their use in first time purchases. While a high proportion of Australians and New Zealanders reported their use of date marking, the proportion of those understanding was less, with some degree of confusion between the correct interpretation of ‘best before’ and ‘use by’ date marking. However, further education could assist in the interpretation and understanding of the date marking terms in use.
* There was limited evidence found regarding consumer use and understanding of directions for use and storage in Australia and New Zealand. While there were high levels of reported awareness and moderate levels of reported use of directions for use and storage on food labels, international observational studies suggest that fewer consumers actually follow storage and preparation instructions. The use and relevance of this information to consumers will be influenced by the types of food being considered, with greater use of this information on unfamiliar and new food. There are a number of education initiatives and related materials targeted at consumers to support labelling and provide additional food safety information.
* There was limited evidence regarding consumer use and understanding of warning and advisory statements on food labels. There is some evidence that in Australia and New Zealand, consumers have difficulty in locating such label elements, and techniques to promote their visual salience could be used to enhance the attention they receive from consumers.
* Across the general adult population, in a 2007 survey, approximately 23% of Australians and 17% of New Zealanders looked for information about allergens when purchasing a food for the first time. Among those with a food allergy or the guardian or parent of a food allergic child, there are much higher levels of food label reading, with nearly 100% reading food labels for allergen information. While assessments of trust, certainty and ability to find information have increased between 2003 and 2008, a 2008 survey identified that food labels were still not easy for people to use and understand when avoiding allergens. Australian and New Zealand consumers reported a number of issues including difficulty in finding/reading ingredients or allergen declaration, inconsistent labelling, the use of many names for the same thing, and precautionary labelling generally.
* However, the AFGC Allergen Guide, which includes recommended allergen labelling formats for food businesses to adopt, and the VITAL system, which supports precautionary allergen labelling, were both launched in 2007. Uptake of these recommendations may have caused changes in the labelling of food allergens by food manufacturers since the 2008 consumer survey; however the extent of uptake across the food supply is unknown.
* The literature indicates that to be used by consumers, food safety label elements need to be able to cut through the surrounding text and be noticed. In some specific cases there are reports of consumers having difficulty in reading and finding information on food labels. The various approaches to make food safety label elements more noticeable (emboldening, larger font, colour, contrast) could assist consumers in finding the information they need.
* The Code currently requires mandatory information on food labels to be legible and prominent such as to afford a distinct contrast to the background. In contrast with the general legibility criteria in the Code, food regulations in Canada, the USA and the EU include more detailed requirements. However, reasons for having general legibility criteria in the Code include the recognition that legibility can be optimised using a number of effective combinations of criteria and that regulations should be no more prescriptive than is necessary to protect public health and safety while providing maximum flexibility for food businesses.
* In conclusion, many of the aspects of format identified in the literature to be of relevance to consumers have been included in the user guide for Standard 1.2.9, the guidance on allergen labelling provided by the Australian Food and Grocery Council (AFGC) and in best practice advice/guidance documents available overseas. With regard to the content of food safety labelling elements, there is limited evidence available about consumer use and understanding of the individual food safety labelling elements currently in Australia and New Zealand.

**Recommendation 47: *warning and advisory statements be emboldened and allergens emboldened both in the ingredients list and in a separate list.***

**The key findings from this report for recommendation 47 are as follows:**

* If implemented, recommendation 47 would result in the following changes to the mandatory declaration of allergenic substances:
* the substances would be required to be declared in the ingredient list and in a separate list (the location on the label is currently not prescribed but some would appear in the ingredient list because of ingredient labelling requirements)
* the allergenic substances would need to be declared in bold in both of the above lists (the specific format requirements are currently not prescribed however the information must be legible and prominent such as to afford a distinct contrast to the background).
* Warning and advisory statements would also need to be declared in bold if recommendation 47 was implemented.
* Of the USA, Canada and the EU, only the EU requires allergens to be highlighted in the ingredient list, however the method for doing so is at the discretion of the manufacturer. None of these countries require allergens to be declared in two separate locations on a food label and in the EU a separate list is not permitted. In the US, the introductory text of warning statements must be in capital letters and bold type.
* The literature review (Mercer et al. 2013) found that various treatments of label elements text can enhance the attention that they receive from consumers. The emboldening of warning and advisory statements and allergen declarations would enhance their visual salience, thereby attaining the attention of consumers. The process of emboldening would create a greater visual differentiation between the emboldened text and the surrounding text (assuming it remains not bold). In doing so, the warning and declarations would be able to cut through the remaining text with greater efficiency and attain the awareness of the consumer.
* The AFGC has a Code of Practice and a guidance document for the food industry which recommend that allergenic substances are declared in the ingredient list in bold and that an allergen summary statement is declared directly below the ingredient list. A number of food labels in Australia and New Zealand are therefore already labelled in accordance with recommendation 47 with respect to food allergens; however the extent of this voluntary labelling across the food supply is unknown.
* The costs of changing food labels for all packaged foods to implement recommendation 47 would depend on the extent of labels requiring change. Should a regulatory change be considered, a more thorough assessment of all costs and benefits would be required in order to satisfy the Office of Best Practice (OBPR) Regulatory Impact Statement (RIS) requirements.

# 5 References

Argo, JJ, KJ Main (2004) Meta-analysis of the effectiveness of warning labels, Journal of Public Policy & Marketing. 23:2. pp. 193-208

Australian Food and Grocery Council (AFGC) (2011) Code of Practice for Food Labelling and Promotion. <http://www.afgc.org.au/health-and-nutrition/industry-codes/cop-food-labelling-a-promotion.html>. Accessed 10 September 2014

Blewett N, Goddard N, Pettigrew S, Reynolds C, Yeatman H (2011) Labelling logic: Review of food labelling law and policy. Commonwealth of Australia, Canberra

Codex (1981)General Standard for the Labelling of Food Additives when Sold as Such(CODEX STAN 107-1981). Codex Alimentarius Commission, Rome

Codex (1985) General Standard for the Labelling of Prepackaged Foods (GSLPF) (CODEX STAN 1-1985). Codex Alimentarius Commission, Rome

Codex (1999) The Code of Hygienic Practice For Refrigerated Packaged Foods With Extended Shelf Life (CAC/RCP 46-1999). Codex Alimentarius Commission, Rome

DeDonder, S, Jacob, CJ, Surgeoner, BV, Champman, B, Phebus, R, Powell, DA (2009) Self-reported and observed behavior of primary meal preparers and adolescents during preparation of frozen uncooked, breaded chicken products. British Food Journal 11(9), 915-925

FAO (2013) Toolkit. Reducing the Food Wastage Footprint. Food and Agriculture Organization, Rome. <http://www.fao.org/nr/sustainability/food-loss-and-waste/en/> Accessed 30 January 2015

Food Safety Information Council (2013) Food Safety Week 2013. Red Hill, ACT: Food Safety Information Council

FSANZ (2006) Second review report: Application A433: Phytosterol esters derived from vegetable oils in breakfast cereals, Application A434: Phytosterol esters derived from vegetable oils in low-fat milk & yoghurt, Application A508: Phytosterol esters derived from tall oils as ingredient in low-fat milk. Food Standards Australia New Zealand, Canberra, Australia

FSANZ (2013a) Legibility requirements for food labels. User guide to Standard 1.2.9 – Legibility Requirements [http://www.foodstandards.gov.au/code/userguide/pages/legibilityrequiremen1401.aspx Accessed 10 September 2014](http://www.foodstandards.gov.au/code/userguide/pages/legibilityrequiremen1401.aspx%20Accessed%2010%20September%202014)

FSANZ (2013b) Date Marking. User guide to Standard 1.2.5 – Date Marking of Food. [//www.foodstandards.gov.au/code/userguide/pages/datemarking.aspx](http://www.foodstandards.gov.au/code/userguide/pages/datemarking.aspx)

Accessed 10 September 2014

FSANZ (2014) Warning and Advisory Statements and Declarations. User guide to Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations.

[http://www.foodstandards.gov.au/code/userguide/pages/warningandadvisoryde1403.aspx](http://www.foodstandards.gov.au/code/userguide/pages/warningandadvisoryde1403.aspx%20) Accessed 10 September 2014

FSANZ (2008) Consumer attitudes survey 2007: a benchmark survey of consumers' attitudes to food issues*.* Food Standards Australia New Zealand, Canberra, Australia

GfK NOP (2009) Public Attitudes to Food Issues. UKFSA, London

Henderson, J, NJ Mann, J Cooper (2003) The impact of FSANZ labelling changes on knowledge of nutrition and allergens by consumers, health professionals and allergen sufferers. Asia Pacific Journal of Clinical Nutrition 12 (Suppl S16): 31

Kenny, B, Hall, R, Cameron, S (1999) Consumer attitudes and behaviours--key risk factors in an outbreak of Salmonella typhimurium phage type 12 infection sourced to chicken nuggets. Australian and New Zealand Journal of Public Health, *23*(2), 164–7

Laughery, KR, Wogalter, MS (2014) A three-stage model summarizes product warning and environmental sign research. Safety Science. Vol 61, 3-10. doi: <http://dx.doi.org/10.1016/j.ssci.2011.02.012>

Lenhart, J, Kendall, P, Medeiros, L, Doorn, J, Schroeder, M, Sofos, J (2008) Consumer assessment of safety and date labeling statements on ready-to-eat meat and poultry products designed to minimize risk of listeriosis. Journal of Food Protection, 71(1), 70–76

Levis, PA, Chambers IV E, Chambers, DH, Hollingsworth, MG (1996) Consumer use of package directions of varying formats for familiar and unfamiliar food products. ASTM Special Technical Publication, 1316, 16–24

Loken B (2006) Consumer psychology: Categorization, inferences, affect and persuasion. Annual Review of Psychology 57:453-85

Mercer R, Young M, Rimpeekool W, Marshall A, Hector D, Dickson J, Phillips R (2013) Literature review on the impact of label format on consumers’ attention and comprehension for mandated label elements. Report prepared for Food Standards Australia New Zealand by *instinct and reason*, Canberra, Australia

NFO Donovan Research (2003) Food Labelling Issues : Quantitative Research with Consumers. Evaluation Report Series Number 4. Food Standards Australia New Zealand, Canberra, Australia

NFO Donovan Research. (2004) Quantitative consumer survey on allergen labelling: Benchmark survey. Evaluation Report Series No. 7. Food Standards Australia New Zealand, Canberra, Australia

Quigley and Watts Ltd (2014) The impact of food safety label elements on consumers. A literature review prepared for Food Standards Australia New Zealand*.* Wellington: Food Standards Australia New Zealand

TNS Social Research (2009) Consumer study on food allergen labelling: Follow-on survey 2008-09. Evaluation Report Series No. 20. Food Standards Australia New Zealand, Canberra, Australia

Watson, M, Meah, A (2012) Food, Waste And Safety: Negotiating Conflicting Social Anxieties Into The Practices Of Domestic Provisioning. Sociological Review, 60(SUPPL.2), 102–120. doi:10.1111/1467-954X.12040

Wogalter MS and Laughery KR (1996) Warning! Sign and label effectiveness. Current Directions in Psychological Science 5(2):33-37

Wogalter, MS, Dejoy, DM, Laughery, KR (1999) Warnings and risk communications. Taylor & Francis, London

Zurzolo, GA, Jennifer J, Koplin, ML, Mathal, MKL Tang, and KJ Allen (2013) Perceptions of precautionary labelling among parents of children with food allergy and anaphylaxis. Medical Journal of Australia 198 (11): 621-623

**Attachment A – Summary of labelling review recommendations relating to presentation of information on food labels**

5. That information on food labels be presented in a clear and comprehensible manner to enhance understanding across all levels of the population.

6. That the food safety elements on the food label be reviewed with the aim to maximise the effectiveness of food safety communication.

7. That there be more effective monitoring and enforcement of the existing requirements in the Food Standards Code to provide mandatory warning and advisory statements and allergen declarations on packages of food not for retail sale, foods for sale at restaurants and other food outlets, foods from mobile food vendors and vending machines, and foods for catering purposes.

8. That the Voluntary Incidental Trace Allergen Labelling system be explored as a possible supplementary model to manage food label declarations relating to the adventitious presence of allergens in foods.

43. That the Perceptible Information Principle be used as a guide for labelling presentation to maximise label comprehension among a wide range of consumers.

44. That a minimum font size of 3.5mm in an open font style in mixed case be applied for mandated information, with then exception of small package sizes where the minimum font size should be 1.5mm.

45. That a set of guidelines be developed in consultation with industry that includes reference to other presentation factors such as letter and line spacing, text justification and stroke width.

46. That a minimum contrast level of 70% for mandated information be stipulated in the Food Standards Code.

47. That warning and advisory statements be emboldened and allergens emboldened both in the ingredients list and in a separate list.

48. That industry be encouraged to develop a set of guidelines relating to the co-location of mandatory health information presented in a standardised manner on the label. Government should facilitate this process through the provision of appropriate resources and expertise.

49. That the development of an automated label assessment tool be investigated that can gauge a label’s compliance with mandated legibility requirements and those stipulated in relevant voluntary codes.

A Progress Report on the Implementation of the Government Response to the Labelling Logic recommendations, as at December 2014 is available at the following link: <http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/Content/Progress_report_December_2014>

**Attachment B – Requirements for mandatory food safety information on food labels in Australia/New Zealand, Canada, USA and the EU (packaged food)**

| **Labelling element** | **Australia and New Zealand****(*Australia New Zealand Food Standards Code*)** | **Canada****(*Food and Drugs Act 1985, Food and Drug Regulations, Consumer Packaging and Labelling Act 1985*, Consumer Packaging and Labelling Regulations)** | **USA****(*Federal Food, Drug and Cosmetic Act, Fair Packaging and Labelling Act, Food Allergen Labelling and Consumer Protection Act 2004*)** | **EU****(Regulation EU No. 1169/2011 – Provision of food information to consumers – EU FIC)**[[25]](#footnote-25) |
| --- | --- | --- | --- | --- |
| General formatting requirements | Standard 1.2.9 – Legibility Requirements, requires that prescribed labelling and information is in English. All information on a label must be written legibly and prominently such as to afford a distinct contrast to the background. | Required information must be easily read and clearly and prominently displayed in both French and English[[26]](#footnote-26) (with a recommended minimum type height of 1.6 mm (1/16 inch), based on the lowercase letter "o", unless otherwise specified). It must be located on any panel except the bottom, except for the information required to appear on the principal display pane (PDP)[[27]](#footnote-27) (common name and net quantity).All mandatory information must appear grouped together, on any part of the label, unless it is information which is required to be shown on the PDP or information exempted from grouping provisions e.g. date marking. | There are placement requirements for labelling statements, either:all required labelling statements on the front label panel (principal display panel) (PDP)[[28]](#footnote-28), or certain specified label statements on the front label panel and other labelling on the information panel (the label panel immediately to the right of the front label panel, as seen by the consumer facing the product).Certain label statements are generally required to be placed together, without any intervening material, on the information panel, if such labelling does not appear on the PDP. These label statements include the name and address of the manufacturer, packer or distributor, the ingredient list, nutrition labelling and any required allergy labelling.Information on the information panel must be prominent and conspicuous. Letters that are at least one-sixteenth (1/16) inch in height must be used. Smaller type sizes may be used for information panel labelling on very small food packages. | Mandatory information must be marked in a conspicuous place in such a way as to be easily visible, clearly legible and indelible. It shall not be hidden, obscured, detracted from or interrupted by any other written or pictorial matter or other intervening material. Mandatory information, including allergens, date mark, storage conditions, conditions of use, and instructions for use, must be printed on the label in such a way as to ensure clear legibility, in characters using a font size where the ‘x-height’ is equal to or greater than 1.2mm (for packages 80 cm2 and over).Mandatory information must appear in a language(s) easily understood by consumers of Member States where a food is marketed. |
| Date marking  | Date must be expressed in numerical form, except for month which may be expressed in letters. Day, month, year must be distinguishable. Must be expressed in the order of day then month, or month then year (as appropriate). Must use the words ‘Best Before’, ‘Use By’, ‘Baked For’/’Bkd For’ or ‘Baked On’/Bkd On’ (as appropriate), accompanied by the date or a reference to where the date is located on the label.  | Pre-packaged food with durable life of 90 days or less and packaged at a place other than the retail premises where it will be sold must be marked with a ‘best before’ date. A pre-packaged product having a durable life of 90 days or less and packaged on the retail premises from which it is sold is required to declare the ‘packaged on’ date and the durable life[[29]](#footnote-29) of the food on the label or on a poster next to the food.The year must be shown first, by at least the last two numbers of the year. Year only needed if required for clarification. Month can be expressed in words or bilingual symbols, eg JA for January. The day of the month must follow the month, expressed in numbers.Expiration date (eg ‘Exp’) required on foods for special dietary use and ‘use by date’ may replace ‘best before’ on fresh packaged yeast only. Other terms can be used voluntarily, eg ‘sell by’, ‘prepared on’ but cannot replace ‘best before’. If provided voluntarily, must follow manner of declaration. | Not generally required for foods for retail sale | Date of minimum durability (best before) or use by date required. Date of minimum durability shall be preceded by ‘best before’ if the date includes an indication of the day, and ‘Best before end…’ in other cases. Use by date shall be preceded by the words ‘use by’. The words use by/best before shall be accompanied by either the date itself or reference to where the date is given on the label. Use by date shall be followed by description of storage conditions that must be observed. Date of freezing required for specified foods, eg pre-packed frozen meat. Date shall be preceded by the words ‘Frozen on…’ accompanied by the date itself or reference to where the date is given on the label. The date shall consist of the day, month and year, in that order and in uncoded form.  |
| Storage instructions and instructions for use | A statement is required of any specific storage conditions to ensure the food will keep for the specified period indicated by the use by or best before date. Directions for use and/or storage are mandatory where the food is of a nature that warrants directions about the use or storage of the food for reasons of health or safety. Certain food product standards prescribe additional specific requirements for directions for use, e.g. labelling requirement for cooking instructions where raw meat/fish has been formed or joined to resemble a cut of meat/cut or fillet of fish using a binding system without the application of heat.No additional format requirements.  | Storage instructions may be anywhere on the label except the bottom.Storage instructions are required for certain foods including pre-packaged product having a durable life of 90 days or less and packaged at a place other than the retail premises where it will be sold (if they differ from normal room temperature). All edible meat products, not considered as shelf stable, prepared in a registered establishment must be labelled with storage instructions consisting of one of the following statements:‘Keep refrigerated’ or ‘Keep frozen’, whichever is applicable.There are some other specific requirements that apply to specific food products only. For example: 1. Mechanically tenderised beef must be identified as mechanically tenderised and labelled in the principal display panel in type at least as legible and conspicuous as any other type on the principal display panel with: * ‘Cook to a minimum internal temperature of 63°C (145°F).’

• (in the case of steak) ‘Turn steak over at least twice during cooking.’ 2. Any meat product not a ready-to-eat meat product but has the appearance of or could be mistaken for a ready-to-eat meat product, must bear the following information on its label:* the words "must be cooked", "cook and serve", "raw product", "uncooked" or any equivalent words or word as part of the common name of the product to indicate that the product requires cooking before consumption; and

• comprehensive cooking instructions such as an internal temperature-time relationship that, if followed, will result in a ready-to-eat meat product. | Some instructions required for certain foods, with associated formatting requirements for each. For example, for shell eggs: **SAFE HANDLING INSTRUCTIONS**: To prevent illness from bacteria: keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly.This must appear prominently and conspicuously, with the words "**SAFE HANDLING INSTRUCTIONS**" in bold type, on the PDP, the information panel, or on the inside of the lid of egg cartons. If this statement appears on the inside of the lid, the words "Keep Refrigerated" must appear on the PDP or information panel.Must be set off in a box by use of hairlines. | No additional format requirements.Conditions shall be indicated where foods require special storage conditions and/or conditions of use. Instructions for use required where it would be difficult to make appropriate use of the food in the absence of such instructions. To enable appropriate storage or use of the food after opening, the storage conditions and/or time limit for consumption shall be indicated, where appropriate.  |
| Warning and advisory statements  | Must be declared on the label – location is not prescribed.Standard 1.2.9 includes type size requirements for warning statements (e.g. statements about royal jelly, infant formula, food for infants, formulated supplementary sports food). Type size must not be less than 3 mm, or, in the case of a small package, not less than 1.5 mm. | None in addition to above | Warnings, notices and safe handling statements required for specific foods, eg: For unpasteurised juice, **WARNING:** This product has not been pasteurized and, therefore, may contain harmful bacteria that can cause serious illness in children, the elderly, and persons with weakened immune systems.The word "WARNING" shall be capitalised and in bold type. | Some additional information is required for specific foods (although not defined as warning or advisory statements), eg for foods containing more than 10% added polyols ‘excessive consumption may produce laxative effects’.  |
| Allergens | No additional format requirements. Must be declared on the label – location is not prescribed.  | No additional format requirements.Food allergens and gluten must be declared either in the ingredient list or in a ‘Contains’ statement after the statement of ingredients (with no intervening material). The ‘Contains’ statement must include all names of food sources of allergens in the food, even if declared in the ingredient list.Ingredient list can be on any panel except for the bottom. The prescribed source name for the food allergen must be used (e.g. milk, egg, walnut(s), pecan(s).  | No additional format requirements.Food allergens must be declared either in the ingredient list or in a ‘Contains’ statement immediately after or adjacent to the ingredient list in a type size no smaller than that of the ingredient list. The ‘Contains’ statement must include all names of food sources of allergens in the food, even if declared in the ingredient list. The name of the food source from which the allergen has been derived (as specified) must be declared, eg milk, egg, and the name of specific nuts, seafood, and crustacean shellfish must be declared.   | The name of the substance or product must be highlighted in ingredient list. Food business decides on approach for highlighting e.g. font, style or background colour.If no ingredient list, the word ‘contains’ shall be followed by the name of the substance or product. Not required if the name of the food clearly refers to the substance or product concerned. The source of allergens for each ingredient needs to be declared even if there are several ingredients from the same allergenic food.The voluntary use of allergen statements such as ‘Contains: milk and nuts’ to repeat allergen ingredient information already given in the ingredients list is no longer allowed. All information about allergenic ingredients must be in a single place and that is within the ingredients list (precautionary labelling is permitted). |

1. The government response to Labelling Logic is at <http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/home> [↑](#footnote-ref-1)
2. The Code can be accessed at the following link: [Food Standards Code](http://www.foodstandards.gov.au/code/Pages/default.aspx) [↑](#footnote-ref-2)
3. The *Guide to Food Labelling and Advertising* is at <http://www.inspection.gc.ca/food/labelling/guide-to-food-labelling-and-advertising/eng/1300118951990/1300118996556> [↑](#footnote-ref-3)
4. Available at <https://www.consumer.org.nz/articles/use-by-dates-on-food> [↑](#footnote-ref-4)
5. MPI consumer foodsmart.govt.nz website is available at <http://www.foodsmart.govt.nz/> [↑](#footnote-ref-5)
6. Available at <http://www.foodauthority.nsw.gov.au/consumers/food-labels/label-facts/best-before-and-use-by-dates#.VM_ei_4cTCM> [↑](#footnote-ref-6)
7. FSANZ notes that foods such as oils, butter, margarine dairy spreads and other fats would not normally be labelled with a use by date. [↑](#footnote-ref-7)
8. Website available at <http://www.foodsafety.asn.au/> [↑](#footnote-ref-8)
9. The Australian dietary guidelines are available at the following link: [Australian Dietary Guidelines (2013) | National Health and Medical Research Council](http://www.nhmrc.gov.au/guidelines-publications/n55) [↑](#footnote-ref-9)
10. The Eating for Healthy Adults booklet is available at the following link: [Eating for Healthy Adults/Nga kai totika ma te hunga pakeke | HealthEd](https://www.healthed.govt.nz/resource/eating-healthy-adultsng%C4%81-kai-t%C5%8Dtika-ma-te-hunga-pakeke) [↑](#footnote-ref-10)
11. The FSANZ fact sheet is at the following link: [Canned foods: purchasing and storing](http://www.foodstandards.gov.au/consumer/safety/cannedfoods/Pages/default.aspx) [↑](#footnote-ref-11)
12. The AFGC Code of Practice is available at the following link: <http://www.afgc.org.au/our-expertise/industry-codes/code-of-practice-for-food-labelling-and-promotion/> [↑](#footnote-ref-12)
13. The Guide to Allergen Management and Labelling is available at the following link: [Labelling » Australian Food & Grocery Council](http://www.afgc.org.au/our-expertise/health-nutrition-and-scientific-affairs/labelling/) [↑](#footnote-ref-13)
14. Further information about VITAL® is available at <http://allergenbureau.net/vital/>. [↑](#footnote-ref-14)
15. *Questions and Answers on the application of the Regulation (EU) N° 1169/2011 on the provision of food information to consumers* can be found on the following webpage: <http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/proposed_legislation_en.htm>

*Guidance on Food Allergen Management for Food Manufacturers* is available at <http://www.fooddrinkeurope.eu/uploads/publications_documents/FINAL_Allergen_A4_web.pdf>

*Guidance on the Provision of Food Information to Consumers* is available at <http://www.fooddrinkeurope.eu/uploads/press-releases_documents/FDE_Guidance_WEB1.pdf> [↑](#footnote-ref-15)
16. FIR Guidance is available at <http://www.food.gov.uk/sites/default/files/fir-2014-guidance.pdf> [↑](#footnote-ref-16)
17. The FIR can be accessed from the webpage: <http://www.food.gov.uk/enforcement/regulation/fir> [↑](#footnote-ref-17)
18. Technical guidance: food allergen labelling and information (EU Regulation 1169/2011) is at <http://www.food.gov.uk/business-industry/allergy-guide/allergen-resources#toc-1>

*Allergy: what to consider when labelling food – A guide for small and medium businesses that make or sell prepacked food* is at <http://www.food.gov.uk/sites/default/files/multimedia/pdfs/publication/allergy-labelling-prepacked.pdf> [↑](#footnote-ref-18)
19. Available at: <http://www.foodstandards.gov.au/consumer/foodallergies/allergies/Pages/default.aspx> [↑](#footnote-ref-19)
20. Respondents to the two surveys were sampled through allergy clinics and allergy support groups, and had the most serious food allergy in their household or were the parent or guardian of a child with the most serious food allergy in the household. Almost all respondents reported they were diagnosed by a medical practitioner. [↑](#footnote-ref-20)
21. [Cost Schedule for Food Labelling Changes, PwC 2014](http://www.health.gov.au/internet/main/publishing.nsf/Content/CF7E670597F383ADCA257BF0001BAFF5/%24File/2014%20Cost%20Schedule%20for%20Food%20Labelling%20Changes%20.pdf) [↑](#footnote-ref-21)
22. [Cost Schedule for Food Labelling Changes, PwC 2008](http://www.foodstandards.gov.au/publications/Pages/costscheduleforfoodl5765.aspx) [↑](#footnote-ref-22)
23. Stock keeping unit is a unique identifier for each distinct product and service that can be purchased in business. [↑](#footnote-ref-23)
24. Woolworths Ltd. (2014) *personal communication* 14 February 2014 [↑](#footnote-ref-24)
25. Provisions apply from 13 December 2014, except for provisions for mandatory nutrition declarations which apply from 13 December 2016. If, however, the nutrition declaration is provided on a voluntary basis during the period 13 December 2014 – 12 December 2016 or is required because a nutrition and/or health claim has been made or vitamins and/or minerals have been added to a foodstuff, then the EU FIC formatting and presentation provisions will apply to it from 13 December 2014. [↑](#footnote-ref-25)
26. There is one exception to the bilingual requirement as follows: The identity and principal place of business of the person by or for whom the pre-packaged product was manufactured, processed, produced or packaged for resale, may be in either English or French. [↑](#footnote-ref-26)
27. *Principal Display Panel* refers to the main panel that is normally visible when the product is displayed for sale. [↑](#footnote-ref-27)
28. The term *principal display panel* as it applies to food in package form means the part of a label that is most likely to be displayed, presented, shown, or examined under customary conditions of display for retail sale. The principal display panel shall be large enough to accommodate all the mandatory label information required to be placed thereon by this part with clarity and conspicuousness and without obscuring design, vignettes, or crowding. [↑](#footnote-ref-28)
29. durable life can be expressed several ways, for example, the number of days a product will retain its freshness or may be applied as a ‘best before’ date. [↑](#footnote-ref-29)