

## Allergen management for dairy food manufacturers

Chemical substances in a food that cause an allergic reaction are called allergens. An allergic food reaction is an unusual response by the body's immune system following ingestion of an allergen. Allergens are generally proteins that occur naturally in foods.

Allergic reactions can range from mild to life threatening, and the only way people with an allergy can manage the risk is to avoid that allergen. Mandatory food labelling requirements assist susceptible consumers to identify and avoid allergens in their food.

This note describes how dairy manufacturers can manage food allergens in dairy products and explains how allergen declarations are required to meet labelling laws.

### What are the allergens of concern?

Standard 1.2.3 *Mandatory Warning and Advisory Statements and Declarations* of the Australia New Zealand Food Standards Code mandates that the presence of certain substances in a food must be declared on the label. Where a food is not required to bear a label this information must be shown with the food displayed, or provided to consumers on request.

Allergens that may cause allergic reactions in susceptible consumers and must be declared include:

Cereals and cereal products containing gluten	Tree nuts and tree nut products, other than coconut	Fish and fish products
Crustacea and their products	Peanuts and peanut products	Royal jelly
Egg and egg products	Sesame seeds and sesame seed products	Bee pollen and propolis
Milk and milk products	Soybeans and soybean products	Added sulphites of $\geq 10$ mg/kg

Ingredients in dairy food formulations may contain many of these allergens when added as ingredients in yoghurts, dips, and dairy desserts e.g. cereals, nuts, crustaceans, egg and soy products.

### Managing food allergens in the manufacturing plant

Food allergens must be controlled through every stage of food manufacture. Manufacturers need a documented policy on allergen management supported by an allergen management program (AMP) within their food safety

program (FSP). Under an AMP, all potentially allergenic ingredients within the manufacturing environment should be identified, and managed as described below.

### Product development and formulation

The manufacturer must control the potential inclusion of allergens in a food product by excluding and/or minimising the use of ingredients containing allergens, where feasible.

When formulating dairy products, manufacturers are encouraged to access technical expertise to identify and/or exclude allergen-containing ingredients such as:

- vegetable oils derived from peanut, soy, tree nut, or sesame sources
- amylase obtained from a wheat source
- whiteners from a milk or wheat cereal source.

Manufacturers should also be alert to possible allergens within ingredients – for example some milk powders contain lecithin derived from soybeans and this must be declared.

### Raw materials

To prevent the accidental contamination of other raw materials, equipment and products:

- identify and label all raw materials containing allergens
- where possible, segregate raw materials containing allergens to minimise the risk of cross-contamination
- assess the allergen status of all raw materials entering the premises
- implement an approved supplier program for raw materials and undertake verification audits to ensure no unlabelled allergens are present
- check imported raw materials for potential labelling anomalies such as undeclared allergens.

### Equipment, premises, and processing

Products containing allergens should ideally be processed on separate lines, in separate facilities. If this is not feasible or practical, minimise the risks by:

- scheduling production so products that do not contain allergens are processed before products that do
- undertaking longer run times to minimise product change-overs
- identifying and managing potential cross-contamination sites during production

- using colour-coding systems for identifying non-allergen/allergen areas, production equipment, production utensils and tools, and cleaning and maintenance tools
- identifying and labelling reworked product (i.e. product/food to be added back into the production stream) and completing appropriate documentation to prevent inadvertent introduction of allergens into products.

## Cleaning

- Ensure all cleaning procedures (manual and cleaning-in-place) are documented in the company's FSP.
- Validate cleaning methods to confirm effective removal of allergens. Testing surfaces and equipment for the presence of allergens after cleaning will determine the effectiveness of the cleaning method.
- Allow sufficient time for adequate cleaning between production runs.
- Be aware that reclaimed cleaning solutions/chemicals may be a potential carryover source for allergens.

## Training and communication

- Ensure all staff are aware of, and understand, the importance of allergen prevention and control. Training and communication programs should extend to ingredient suppliers, co-packers, and contractors.
- AMP procedures and work instructions should be communicated to staff and be visible in the workplace.
- Include diagrams, pictures, or graphics on signs to increase understanding.

## Labelling and packaging food containing allergens

Clause 4 of Standard 1.2.3 requires manufacturers to list all allergens present in a food as: an ingredient; an ingredient of a compound ingredient; a food additive or component of a food additive; or a processing aid or component of a processing aid, on the label of packaged food.

Allergen declarations must be set out legibly and prominently. Some manufacturers make it easier for consumers to identify allergens by highlighting them in bold font in the ingredient list. Milk is an ingredient used in the production of cheese and yoghurt and therefore must be declared in the ingredient listing on the label. It is best practice to describe food allergens using common language. For example, sodium caseinate should be listed as 'milk'.

When exporting dairy foods, it is essential to comply with the relevant allergen labelling requirements of the importing country. The European Union has added celery, mustard, sesame seeds, lupin, molluscs and their products to the list of allergens that must be declared on food labels.

'May contain' statements are sometimes used on labels, however this will not meet the requirements of clause 4 of Standard 1.2.3 if the relevant substance is present in a food.

## Further guidance

The Allergen Bureau provides the food industry with information on the management of food allergens to ensure consumers receive relevant, consistent, and easy to understand information.

The Bureau has developed the Voluntary Incidental Trace Allergen Labelling (VITAL) tool to help manufacturers assess the impact of allergens in food, and adopt appropriate precautionary allergen labelling.

## Key points to consider

- Dairy manufacturers have a responsibility to manage allergens in their products so that consumers with food allergies are protected.
- An allergen management program should form an integral part of a dairy manufacturer's FSP.
- Manufacturers need to have a thorough understanding of their processing environment and potential cross-contamination points in order to prevent the unintended introduction of allergens.
- Products containing allergens must be labelled according to Standard 1.2.3.
- Staff need to be aware and understand the importance of allergen prevention and control.

## References

- Allergen Bureau, [Food Industry Guide to the Voluntary Incidental Trace Allergen Labelling \(VITAL\) Program Version 2.0](#), Allergen Bureau, Tasmania 2012.
- Allergen Bureau, [Food Allergen Management Training](#), Allergen Bureau, Tasmania 2013.
- Allergen Bureau, [What are food allergens](#), Allergen Bureau, Tasmania 2014.
- Food Standards Australia New Zealand, [Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations](#), Commonwealth of Australia, Canberra 2011.
- Food Standards Australia New Zealand, [User Guide to Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations, Commonwealth of Australia, Canberra 2014](#).
- Institute of Food Research, [Food Allergy Information](#), Institute of Food Research, Colney, UK 2008.