



## FUNDING AVAILABLE TO IMPROVE FOOD SAFETY PRACTICES

Funding is still available for you to improve your food safety practices or implement the Meat Facilities Standards or HACCP. Even small changes may be eligible for funding. You may qualify for up to \$20,000.

We are ready to assist you!

Getting started is easier than you think.

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Funding is available through the Agricultural Policy Framework, Food Safety Initiative (APF/FSI) – a Federal, Provincial, Territorial Initiative.



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- Cleaning equipment when changing from an allergen-containing product to non-allergen containing products (when production schedule requires) is crucial and should be followed by a thorough visual inspection; all parts of the equipment should be accessible to confirm that it is free of contamination.
- Utensils and containers (e.g. scoops, pails, bins), if not dedicated to specific allergen products, should be thoroughly cleaned between allergen containing and non-allergen containing products.
- Any spillage of an allergenic product that occurs during transportation, storage or production should be cleaned up immediately to make sure there is no allergen contamination.

Allergen cleaning procedures should be part of your sanitation procedures and be geared towards “allergen clean.” This means that no visible build-up or residue that could contaminate is present on food-contact surfaces, and that all areas near the product zone are free of allergen-containing product. Once these procedures are developed, steps should be taken to verify their effectiveness. These may include a visual inspection and allergen test kits.

### Labeling

Labeling is the primary method for manufacturers to alert consumers that their products contain or may contain allergens. Correct labeling on food products is crucial. Incorrect labeling can lead to consumer health issues (even death) and is the main cause of allergen-related product recalls. Some steps to consider are:

- Evaluate your labels to verify that they correctly list all of the ingredients, including allergens;
- Check regularly during packaging to ensure that the correct label is used.

Sometimes finished products are custom orders or are sold from plant’s retail areas. These may not be considered pre-packaged foods and are therefore exempt from bearing a label. However, you should be able to identify allergens in all products. Documentation may be in the form of a binder where all ingredients (including allergens) and sub-ingredients (ingredients of ingredients) are listed. You should have a list of all allergens present in the facility. This documentation is necessary to be made available to consumers who may inquire if certain allergens are present in your products.

### Employee Training

Your employees must be aware of the consequences of allergen consumption by sensitive people, as well as of the financial implications in the event of a recall or a customer’s serious adverse reaction. Videos that explain the seriousness of food allergies are available from Food Safety Specialists with Alberta Agriculture and Rural Development.

You can also provide customized allergen training to ensure your employees are familiar with:

- Potential allergen cross-contamination situations at your plant such as receiving, storage, handling, and production;
- Allergen-dedicated containers, scoops, utensils and equipment, if available;
- Allergen-cleaning procedures;
- Production scheduling;
- Rework policies;
- Clothing requirements when handling allergens, if applicable; and
- The importance of accurate product labeling.

### References

- Food Standards Agency – *Draft Guidance on Allergen Control and Consumer Information*: <http://www.reading.ac.uk/foodlaw/pdf/uk-05052-allergens.pdf>
- Food Safety Network – *Food Allergy Fact Sheet*: [http://www.foodsafetynetwork.ca/articles/533/food\\_allergy\\_factsheet.pdf](http://www.foodsafetynetwork.ca/articles/533/food_allergy_factsheet.pdf)
- Kurt Deibel, Tom Trautman, Tom DeBoom, William H Sveum, George Dunaif, Scott, N. Virginia, and Dane T. Bernard, A Comprehensive Approach to Reducing the Risk of Allergens in Foods, *Journal of Food Protection*. Vol. 60, No. 4, 1997, Pages 436-441.
- Health Canada – *Allergen Labeling*: <http://www.hc-sc.gc.ca/fn-an/label-etiquet/allergen/index-eng.php>
- The Canadian Food Inspection Agency – *Food Allergens*: <http://www.inspection.gc.ca/english/fssa/labeti/allerg/allerge.shtml>

# FOOD SAFETY SENTINEL

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## ALLERGEN AWARENESS IN MEAT PROCESSING PLANTS

### What is a Food Allergy?

A food allergy is an adverse reaction to a particular food that involves the body’s immune system. It is characterized by the rapid release of chemicals in the body that causes the symptoms of the allergic reactions. Common symptoms include: hives, rashes, nausea, vomiting and, in severe cases, anaphylaxis. Anaphylaxis can be fatal (characterized by swelling of the tongue, breathing difficulty, sudden drop in blood pressure) and requires immediate medical attention.

Health Canada estimates that food allergies affect six percent of children and three to four percent of adults in Canada.

Food intolerances are often confused with food allergies. Food intolerances do not involve the body’s immune system but rather refer to the digestion or metabolism of certain foods. Two examples are intolerance to sugar in milk (lactose intolerance) and intolerance to gluten (celiac disease).

### What Are the 10 Priority Food Allergens in Canada?

The Canadian Food Inspection Agency has grouped 10 priority food allergens food processors must control. They are:

- |   |   |
|---|---|
| - Peanuts   | - Eggs  |
| - Tree nuts (almonds, cashews, hazelnuts, pecans, walnuts, pistachios)                  | - Milk  |
| - Fish  | - Soy   |
| - Shellfish (ex: clams, mussels, scallops) and Crustaceans (ex: lobster, shrimps, crab) | - Sesame seeds  |
|   | - Wheat   |
|   | - Sulphites (above 10 part per million), such as sulphur dioxide and sodium metabisulphites |

The first nine allergens are proteins and survive all food processing conditions (e.g. cooking, deep freezing). Sulphites are not proteins; they are included because they can cause adverse reactions in some people (e.g. asthma attack). These 10 prioritized allergens cause 90 percent of the severe allergic reactions that affect Canadians. However, there are currently 161 known food allergens that can cause anaphylactic reactions.

### Why Are Allergens Important to Food Processors?

Food allergens are becoming increasingly significant to food processors because they can pose a serious health hazard to consumers. There is no cure for food allergies; avoidance of foods that cause reactions is the only way to prevent illness.

For this reason, food operators must ensure that:

- All allergens are listed on the product label so that consumers are aware of the presence of these allergens in the products.



## HOW ARE ALLERGENS LABELED IN CANADA?

Currently, the labeling of food allergens is voluntary in Canada. However, *Food and Drugs Regulations* (section B.001.008) require that almost all pre-packaged foods have a complete list of ingredients on their labels. These regulations exempt certain foods and food mixtures from an ingredient list, and others from a declaration of the ingredient components. As a result, certain foods may contain undeclared allergens. To address this gap, a move is expected toward the requirement of listing food ingredients known to cause allergies on labels in all situations: whenever they are present as ingredients or components of ingredients in pre-packaged foods.

Health Canada is now working to change labeling regulations to ensure the 10 priority allergens are consistently labeled. A few of the new regulation proposals include: mandatory listing of priority allergens; use of the common name of the priority allergen (e.g., milk instead of casein); and declaration of the source of the proteins if the source is a priority allergen (e.g. hydrolyzed soy protein).

For more information on the Food Allergen Labeling Regulatory Amendments, check the Health Canada website at: <http://www.hc-sc.gc.ca/fn-an/label-etiquet/allergen/index-eng.php>

- Allergens do not become part of food unintentionally. Cross-contamination with allergens can occur at any step during the processing, storage or transportation of food products. Improper clean-up, inaccurate formulation, cross-contamination by allergen residues left on equipment or utensils, and even dust are a few ways in which allergens can potentially contaminate products. A tiny amount of food can trigger an allergic reaction; some people react even after just touching or smelling a food allergen.

In Canada, there are provisions in place under the *Food and Drugs Act* to protect the consumer from food allergens. Section 5 (1) of the *Food and Drugs Act* states: “No person shall label, package, treat, process, sell or advertise any food in a manner that is false, misleading or deceptive or is likely to create an erroneous impression regarding its character, value, quality, *composition*, merit or *safety*.”

Provincial abattoirs are subject to the *Food and Drugs Act*. Food and Drugs regulations apply to all food processors in Canada, regardless of their licence.

### How to Control Allergens in a Meat Plant

An allergen-control program is an efficient way to control allergens and avoid cross-contamination of your food products. An effective program will help protect your customers and prevent product recalls. Below are the key steps in developing an effective allergen-control program.

#### Allergen Identification

The first step is to identify which of the 10 priority allergens you have in your plant.

Developing a list of all ingredients and raw materials used can help you with allergen identification. Keep in mind:

- Do not overlook ingredients when developing the list. Make sure that you include food additives, spices, flavours and colourings.
- Clearly identify on the list ingredients that are allergens or that contain an allergen from the 10 priority allergens.
- Use the ingredient specification documentation (this can be obtained from your suppliers). Ingredients should be fully described and other important allergen information may be included in it.
- If specifications are not available, the ingredient listing on the label may be used. In a case where ingredients are not fully described, contact the supplier for complete information. For example, “vegetable oil” is insufficient because it could refer to canola or soy oil; “hydrolyzed vegetable protein” could be made from wheat or soy.
- Pay attention to hidden sources or unusual names like lecithin (which can be made from soy or egg), caseinate (made from milk), Worcester sauce (contains fish) and satay sauce (contains peanuts).

Based on allergen ingredient identification, develop a list of finished products that clearly identifies those containing allergens.

#### Supplier Information

Food processors need to be aware of the presence of allergens in their raw materials, as well as potential cross-contamination opportunities in other locations during manufacturing, handling or transport. This can be done in a few ways:

- Ask your suppliers if they have an allergen control programs; send your suppliers a short questionnaire that includes allergen questions.
- Check the allergen status of ingredients with your suppliers. Ask them if the ingredients you buy from them contain allergens, and what potential sources of allergen contamination might exist at their sites (despite their allergen-control measures)
- Request that your suppliers notify you if they modify the formulation of their products to include any of the 10 most common allergens.

#### Ingredient Receiving, Storage and Handling

These steps are very important to ensure that non-allergenic ingredients do not come in contact with allergens.

- Ingredients containing allergens should be received in properly labeled and sealed packaging materials, and separated from allergen-free ingredients.
- At receiving, employees should inspect for spills and damaged packages.
- Allergenic food ingredients should be stored separately from other ingredients. If possible, a physical separation (ideally, different rooms) should be maintained between allergens and other ingredients.

- If an allergen-dedicated storage area is not possible, use different storage racks. When this is not practical and the same storage rack is used, store allergenic ingredients on the bottom rack.
- Storage areas should only be used for storage of ingredients used in processing. Old ingredients that are not used any more, or other food (e.g. employee lunches), should be stored in a separate area. Lunches and condiments provided in the lunchroom often contain allergens and pose a great risk of allergen contamination to other products.
- If multiple allergens are stored on the same rack, only similar allergenic ingredients should be stored above similar allergenic ingredients (e.g. soy above soy, wheat above wheat, etc.).
- Identify allergen storage areas with signage or painted lines on the floor;
- Where allergenic ingredients are de-boxed or de-bagged, they should be placed in dedicated containers. These should have lids and should not be used for storage of any other raw materials.
- Identify packages and containers containing allergenic ingredients with “Allergen” stickers and /or colour-coded tags.
- Ensure that the handling (e.g. weighing, moving, dumping) of allergenic ingredients does not cause contamination of other ingredients or products.
  - Use colour-coded dedicated scoops and have a system in place to ensure they are used only for intended purposes.
  - If preparing for multiple recipes, weigh the allergenic ingredients last to prevent non-allergenic ingredients from becoming contaminated during handling or through the scale container.
  - If possible, dedicated scales for allergens and non-allergens should be used, or the scale and immediate area must be cleaned after using allergens.
  - Ensure the immediate area around mixing is free of other ingredients or products when running allergen-containing products (prevent contamination by dust from the dumping of allergenic ingredients).

#### Production Scheduling

The best way to control allergens within a plant during production is by using dedicated equipment and production lines for specific allergenic products. However, since dedicated lines may not always be a practical option, another way to achieve this is by strategic scheduling of product runs.

Products that do not contain allergenic ingredients should run first; products containing allergenic ingredients should run last. In the case of products containing multiple allergens, the products containing the most allergens should be run last, followed by intensive cleaning.

Example: In a production day, three types of sausages are to be made. According to the finished product list, one recipe contains one allergen – soy flour; one contains no allergens; and one contains two identified allergens – soy and wheat. The one that contains no allergens should be run through first, then the one that contains soy; and last, the one that contains soy and wheat.

#### Rework and New Recipes

Rework (production carry-over) that contains allergenic ingredients should be reworked only into products that contain the same allergen. For example, sausage emulsion containing wheat binder should only be reworked into other wheat-containing sausages. All rework should be labeled with recipe name and production date so it can be easily identified and tracked through the process.

When developing new recipes or reformulating existing ones, consider whether an allergenic ingredient is essential to the product. When possible, try to replace it with a non-allergenic ingredient. This will eliminate production and scheduling issues and minimize the risk of allergen contamination.

Make sure that when a recipe is changed, the ingredient listing and the production schedule are changed accordingly.

#### Sanitation

Very small amounts of allergens can cause severe reactions, including deadly anaphylactic reaction. For this reason, a thorough sanitation procedure should be performed. Things to consider when doing allergen cleaning:

- Some equipment may need to be dismantled and manually cleaned to ensure all parts are free of allergen residue.

## How Are Allergens Labeled in Canada? (continued)

### Precautionary labeling

In 1994, the Canadian government developed a policy on precautionary labeling to be used on products that may have been unintentionally contaminated with allergens during food processing, e.g. “may contain soy.” This statement cannot be used in lieu of good manufacturing practices. It should only be used in situations when the presence of allergens is unavoidable even though the processor has taken all food safety control measures possible.

Health Canada is currently updating its policy regarding the use of precautionary statements on food labels used to identify priority allergens to make them less confusing to consumers.

Although allergen labeling and the use of precautionary statements are voluntary, enforcement actions can be taken when allergens are not clearly listed on pre-packaged foods and a potential health risk has been identified. Enforcement actions may include recall, product detention and criminal prosecution.

