



WHITEPAPER

Ensuring Proper Allergen Management in Your Frozen or Fresh Wholesale Bakery

One in four Americans, or 85 million people, are projected to spend **\$19 billion annually to avoid purchasing products with the top nine allergens.**

Many of the world's biggest companies – such as Mondelez and Nestlé – have made strides to cater to this market and have begun putting allergy-friendly products on shelves to capitalize on the allergy-free movement. The global allergen testing market is projected to continue to grow at **an annual rate of 8.32%** between 2019 and 2024, pushing demand for foods that are considered free from allergens upward.

These numbers are hard to ignore for food manufacturers and make ensuring proper allergen management in your facility a critical factor in the success of your business.

Major Allergens and the Importance of Proper Allergen Management

In 2006, the Food Allergen Labeling and Consumer Protection Act, or FALCPA, was passed into law to help Americans avoid the health risks associated with food allergens. The law applies to all foods whose labeling is regulated by the U.S. Food and Drug Administration (FDA), both imported and domestic. This includes all food except poultry, most meats, certain egg products and alcoholic beverages. The law identifies eight foods that make up 90% of food allergic reactions: milk, eggs, fish, crustacean shellfish, tree nuts (almonds, pecans, walnuts), peanuts, wheat and soybeans. If a food product contains any of these eight ingredients or any ingredient that contains proteins derived from the root ingredient (like whey from milk, for example), it must be listed on the label. This includes even trace amounts, such as in food coloring or spices.

Under the Federal Meat Inspection Act (FMIA), the Poultry Products Inspection Act (PPIA) and the Egg Products Inspection Act (EPIA), all ingredients used to formulate a meat, poultry or egg product **must be declared** in the ingredients statement on product labeling. A product is misbranded under these acts when it contains an ingredient that is permitted but not declared on product labeling. Though voluntary, these labeling statements are critically important in alerting people with sensitivities or intolerances to the presence of specific ingredients.

In 2019, **52% of recalls performed in the U.S.** were due to undeclared allergens. Though the FDA's Food Safety Modernization Act (FSMA) requires manufacturers to have allergen control measures in place, food companies are still struggling to adhere to these standards. The most common causes of undeclared allergen contamination are improper storage of ingredients or products, improper sanitation of production lines, a breakdown in procedures at facilities where allergens are supposed to be segregated and package mislabeling.

Let's discuss how to combat these common causes of allergen contamination in your facility.



Allergen Control Points

A critical control point (CCP) is a step or procedure in a food manufacturing process where control can be applied and a food safety hazard can be prevented, eliminated or reduced. Prevention is key when it comes to allergen management. The following control points should be implemented to ensure cross-contamination does not occur throughout the production process:



Figure 1: Allergen Control Points

1. Ingredient/Product Storage

When an item or ingredient arrives at your facility, it's your responsibility as a manufacturer to verify the ingredients and labels and ensure they are up to your manufacturing standards. Ingredients that do contain an allergen should be stored or handled in a way that will prevent them from coming in contact with other ingredients or foods that do not contain them. To prevent cross-contamination, ingredients containing allergens should be stored in dedicated areas, stored below other ingredients to prevent contamination in the event of a spill, be clearly labeled and remain sealed until required.

2. Production Scheduling

The best way to avoid cross-contamination at the time of production is to use designated lines. If this option is not available, scheduling becomes critical. Products containing allergens should be scheduled to run at the end of a shift and proper sanitation should be scheduled accordingly to prevent residue from allergens from coming into contact with the next batch through the line. Effective scheduling not only helps control allergens at your facility, but also helps save on sanitation costs and production down time.

3. Employee Handling/Sanitation Processes

For food companies that have the ability to run multiple lines at the same time, it's critical that cross-contamination through shared tools and surfaces, air movement, high-pressure spraying during the sanitation process and employee handling does not occur.

To avoid these potential causes of cross-contamination, try implementing physical barriers around production lines used for products containing allergens, emphasizing the importance of stringent employee sanitation standards (like handwashing and re-gowning before entering another production line) and limiting the use of compressed air to clean equipment while other lines are running.

4. Packaging

In 2018, incorrect labeling was the **number one reason for undeclared allergen recalls**. This includes putting the wrong product in the wrong package (such as putting a peanut butter cookie in a sugar cookie package), putting the wrong label on the wrong package or including “free-from” claims on labels that may contain traces of allergens.

Avoid packaging and labeling issues by doing the following:

- Be diligent about checking printed labels for accuracy before putting labels on products
- Review packaging statements to ensure they reflect production standards (for example, claims pertaining to the absence of allergens must only be used for foods that have been specially formulated or are processed under special conditions to ensure the absence of the named food allergen source that may be present in a similar food)
- Utilize barcode readers to effectively manage packaging processes
- Review ingredients, formulations and packaging specifications annually
- Document all allergen-management controls and plans

Track and Trace with an Industry-Specific Solution

Understanding why proper allergen management is important at your facility and applying allergen control points throughout the production process are only the initial steps in effectively managing allergens in your plant. In order to ensure the safety of the food you're producing and comply with industry regulations – like FSMA, for example, which requires manufacturers to have stringent data management procedures in place – an industry-specific software solution like an enterprise resource planning (ERP) system is vital.

You must be able to answer the following questions about each product your company produces and have the subsequent documentation to support it to ensure proper allergen management in your facility.

1. What went into it?

Manufacturers need to have complete control over their formulas and recipes to ensure safety, consistency and quality. Recipe management is essential in order to effectively track allergens through your facility. When a new product is formulated, ingredients are tracked within a system like an ERP. The presence of allergens is easily captured and tracked throughout the product's lifecycle.

But what happens if an ingredient is out of stock, a substitute is used and the recipe needs to be modified? If a recipe calls for milk, for example, and soy milk is determined as an acceptable substitute, an ERP system would detect that soy is another allergen and prevent that change from going into production. An error message would be sent to the appropriate individual notifying them of the conflict.

2. What came into contact with it?

Cross-contamination is one of the most common sources of undeclared allergens. We mentioned earlier in this post that in an ideal situation, products containing allergens would be processed on separate lines using separate equipment. But when that option is not available, accurate scheduling becomes critical. A hierarchical structure can be created in an ERP system to schedule jobs that run from the lowest to the highest level of allergens. For example, a bakery should produce sugar cookies at the beginning of the day followed by peanut butter cookies. Sanitation should be scheduled before the next batch runs on that line to prevent peanut residue from coming into contact with the next batch of cookies.

3. Where did it go?

Traceability is essential in food manufacturing. A business must be able to track material through every stage of production and be able to trace ingredients bi-directionally. Lot traceability functionality in a food-specific ERP solution allows manufacturers to determine where exact ingredients originated from within a particular batch but also where that batch went. Version control features provide historical views of the recipe used to produce each finished lot so that an accurate audit trail is available that includes the original ingredient lots used at specific dates and times.

In the event of a recall, the information required to perform a targeted recall is readily accessible in an ERP solution. If a supplier realized a shipment of spice mix contained walnuts, for example, an ERP would be able to trace where the ingredient was used, how much was used, when it was used and where the finished product went. Having the ability to limit a recall to specific lots instead of being forced to conduct a widespread recall is less damaging to both your brand reputation and your bottom line.

If your wholesale bakery is struggling with implementing an effective allergen management program, **Aptean for Food and Beverage** may be able to help. We provide software solutions that are designed with a deep knowledge of the food and beverage industry's unique business requirements, safety needs and regulatory demands. If you'd like to learn more, **reach out to us**. We'd love to talk.



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