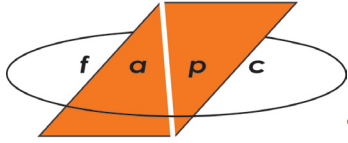


# Food and Agricultural Products Center



## FLASH!!

January 27, 2004

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## Controlling Allergens in Food Processing Plants

STILLWATER, Okla. – Food allergies affect approximately 2 percent of adults and 8 percent of children; however, no cure exists for food allergies. The only course is strict avoidance of an offending food.

Knowing if an allergen is contained in a particular food is a big problem for individuals with food allergies, said Jason Young, quality control specialist for the Oklahoma Food and Agricultural Products Research and Technology Center. Manufacturers are responsible for ensuring that food is not adulterated or misbranded as a result of the presence of undeclared allergens.

“Individuals with food allergies read labels,” Young said. “The responsibility of a food processor is in declaring allergens in the product on the label. Problems occur when individuals with allergies consume foods believed to be allergen-free, based on inadequate label information.”

If a food item contains an allergenic ingredient, the ingredient must be included on the label. Evidence indicates that some food allergens can cause serious reactions in sensitive individuals upon ingestion of very small amounts; therefore, the presence of an allergen must be declared in accordance with labeling regulations.

According to the Food and Drug Administration, a scientific consensus suggests foods or food ingredients can cause serious allergic reactions in some individuals and account for more than 90 percent of all food allergies. These foods include peanuts, soybeans, milk, eggs, fish, crustacea, tree nuts and wheat.

A sensitive individual can have an allergenic reaction in only 10 ppm or one teaspoon of material in one ton of food, Young said.

“Allergic reactions to foods can be fatal,” he said. “Understanding the potential consequences to a consumer with a food allergy will reinforce the importance of following the proper control procedures.”

The allergen control program is an organized method for identifying and controlling allergens in a processing facility from the incoming ingredients until the final product is shipped out in a truck.

Considered a pre-requisite program and a supplement to the Hazard Analysis and Critical Control Point plan, the allergen control is a stand-alone program. Allergen control should address ingredients and production, use of rework, sanitation and Good Manufacturing Practices, label review and training, Young said.

“Most food production is affected by customer demands and changes in suppliers, raw materials and ingredients, so an allergen control program should be flexible—continuously updated and verified,” he said.

Ingredients and production are very important in controlling allergens. Following is a list of precautions for food processors:

- Ensure that the ingredient supplier has a documented allergen program.
- Identify all of the different products and formulas that contain allergenic ingredients.
- When possible dedicate production lines to handle only allergenic or non-allergenic products. Sched-

ule products with allergenic ingredients at the end of a production run, right before cleanup.

- Design the product flow so that allergenic ingredients are added at the end of a production line to limit equipment exposure.
- Minimize cross contamination of allergenic ingredients and non-allergenic ingredients during storage.
- Draw a plant layout and trace the flow of allergenic ingredients through the plant to help identify points of cross contamination.

Manufacturers can prevent contamination through sanitation, and sanitation starts with Good Manufacturing Practices. The list of sanitary practices include:

- Have standardized procedures for sanitation operations and ensure they are followed.
- Have proper equipment and tools available.
- Focus on hard-to-clean areas - valves, pumps and dead spots.
- Ensure adequate lighting in the proper locations (including flashlights to check inside equipment).
- Move equipment as necessary to make it easily accessible for cleaning; disassemble where necessary.

- Verify sanitation effectiveness by visually inspecting, bioluminescence testing or ELISA (enzyme-linked immunosorbent assay) testing for allergens.

It is important to ensure all employees have an understanding of the allergen prevention program, so they believe in its importance as a part of the facility's food safety program, Young said.

"Employees need to understand the consequences to sensitive people, importance of allergen control, most common areas where problems occur and control measures," he said. "An effective allergen plan requires the understanding and buy-in of all food production staff."

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