Allergen Pangan
Isu Mutakhir dan Relevansinya bagi Industri Pangan
di Indonesia

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“UNDERSTANDING & MANAGING
ALLERGENS IN THE FOOD INDUSTRY”
FoodReview Indonesia, Seafast center dan ILSI SEAR
IPB International Convention Center
BOGOR, September 26, 2013

Purwiyatno Hariyadi
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RECOMMENDATION OF CODEX

The Codex Alimentarius Commission Committee on Food Labelling:

- Listed the foods and ingredients that cause the most severe reactions and most cases of food hypersensitivity.
- Section 4.2.1.4 of General Standards for the Labelling of Prepackaged Foods

The following foods and ingredients are known to cause hypersensitivity and shall always be declared:

1. Cereals containing gluten; i.e., wheat, rye, barley, oats, spelt or their hybridized strains and products of these;
2. Crustacea and products of these;
3. Eggs and egg products;
4. Fish and fish products;
5. Peanuts, soybeans and products of these;
6. Milk and milk products (lactose included);
7. Tree nuts and nut products; and
8. Sulphite in concentrations of 10 mg/kg or more.
RECOMMENDATION OF CODEX

• While the Codex list contains the major allergens on a world-wide basis
  • Foods, which are common causes of allergic reactions, differ between geographical areas, as a result of dietary preferences, for instance.
  • Some countries have chosen to include additional foods on their national list of foods and ingredients that must be declared on food labels.
  • The EU for example has chosen to add celery, mustard, sesame seeds, lupin, and molluscs and products thereof to the list of allergens, which must be declared on food labels.

International Food Allergen List

<table>
<thead>
<tr>
<th>International allergens</th>
<th>USA</th>
<th>Canada*</th>
<th>EU</th>
<th>Australia/ New Zealand</th>
<th>Hong Kong</th>
<th>Japan**</th>
<th>Korea</th>
<th>Argentina</th>
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<tbody>
<tr>
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</table>

*Mustard = Proposed
** = Voluntary labeling recommended for 18 other foods
### International Food Allergen List

<table>
<thead>
<tr>
<th>International Allergens</th>
<th>Bolivia</th>
<th>Chile</th>
<th>Colombia</th>
<th>Costa Rica</th>
<th>Cuba</th>
<th>Mexico</th>
<th>Nicaragua</th>
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<td>Sulphites</td>
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</tbody>
</table>

*Mustard = Proposed  
** = Voluntary labeling recommended for 18 other foods

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### Top 8 Most Common Food Allergens

[Diagram of Big Eight Allergens]

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International Food Allergen List

Buckwheat (*Fagopyrum esculentum*)

- Plant cultivated for its grain-like seeds, and also used as a cover crop.
- Despite the name, buckwheat is not related to wheat, as it is not a grass; instead, buckwheat is related to sorrel, knotweed, and rhubarb.
- The cultivation of buckwheat grain declined sharply in the 20th century with the adoption of nitrogen fertilizer that increased the productivity of other staples.
- A related species, *Fagopyrum tataricum* (Tartary buckwheat) is also cultivated as a grain in the Himalayas.
International Food Allergen List

Lupin (Lupinus angustifolius, Lupinus albus)

- Commonly known as lupin or lupine (North America), is a genus of flowering plants in the legume family, Fabaceae
- The genus includes over 200 species, with centers of diversity in North and South America.
- Smaller centers occur in North Africa and the Mediterranean.

RECENT ISSUE #1:

- On the increase in developed countries
- Depends on genetic factors, age, dietary habits, geography
- Perceived prevalence 25-30%
- 2-4% of adults
- Up to 8% of preschool children (many outgrow this, except peanut)

*US/ Europe statistics

Increase in prevalence of food allergies
RECENT ISSUE #1:

Indonesia?

- Prevalence?
- Type of allergen?
  \[ f(\text{consumption/processing practices}) \]

Increase in prevalence of food allergies

RECENT ISSUE #2:

- No globally accepted allergen threshold levels
- Differs from person to person (country to country).
- Regulatory authorities:
  - 5-10ppm for recall enforcement
- Manufacturers:
  - more conservative limit of 5ppm

More sensitive allergen detection methods developed
- Issues of threshold level
- Issues of labelling
More sensitive allergen detection methods developed
- Issues of threshold level
- Issues of labelling

RECENT ISSUE #2:

Indonesia?
- Laboratory availability?
- Capacity of lab?
- Standard method?
- Etc

RECENT ISSUE #3:

- labeling

- Avoidance of the food is key !!
- Total exclusion of food allergens from one’s diet is difficult (especially for milk, eggs, wheat and peanuts)
- Depend entirely on the food preparer or the food label
RECENT ISSUE #3:

• labeling

  • Allergens labeling regulations = f (country)
  • Allergenic ingredients → expressed in common name (understood terms)
  • For Recipe Ingredients:
    1. Listed as the common name within the ingredient listing:
       • Examples: “wheat flour”, “milk fat”, “milk”, “egg yolk”
    2. In parentheses following the name of the ingredient:
       • Examples: "lecithin (soy)," “casein (milk)," "whey (milk)"
    3. Immediately after the list of ingredients
       • Example: “Contains Wheat, Milk, and Soy.”

• May Contain <allergen> (most effective)
• Made on same equipment as <allergen>
• Manufactured in the same facility as <allergen>
RECENT ISSUE #3:

• labeling

INGREDIENTS: MILK CHOCOLATE SOLIDS, DRIED CREAM, WHEY, LACTOSE, NONFAT DRIED MILK, COCOA BUTTER, CHOCOLATE, SUGAR, DRIED MILK, LACTOSE, COCOA, LECITHIN, AND VANILLIN. ARTIFICIAL FLAVORING, AND ATHLETIC FLAVOR.

ALLEGY INFORMATION: MANUFACTURED ON THE SAME EQUIPMENT THAT PROCESSES PEANUTS.

Mfd. by The Hershey Company
Mid., by The Hershey Company
17033-0815, U.S.A.
RECENT ISSUE #3:

- labeling

What Is Gluten-Free? FDA Has an Answer

People with celiac disease can now have confidence in the meaning of a "gluten-free" label on foods.

The Food and Drug Administration (FDA) has issued a final rule that defines what characteristics a food must have to be labeled "gluten-free." The rule also defines "contaminated with gluten," "free of gluten," and "no gluten" in the same standard.

This rule has been eagerly awaited by advocates for people with celiac disease, who face potentially life-threatening illnesses if they eat the gluten found in bread, rolls, cereals, pasta and many other foods.
What Is Gluten-Free?  
FDA Has an Answer

• “gluten-free,” : less than 20 ppm (parts per million) in foods that carry this label.  
  • This is the lowest level that can be consistently detected in foods using valid scientific analytical tools.  
  • Also, most people with celiac disease can tolerate foods with very small amounts of gluten.  
  • This level is consistent with those set by other countries and international bodies that set food safety standards.

RECENT ISSUE #3 :
• labeling

• Overuse/abuse “may contain” label?  
  • Need strong “good manufacturing practices”.
RECENT ISSUE #3:

• labeling

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RECENT ISSUES #4:

**Significant increase in allergen related product recalls:**
- Company/product reputation
- Economic losses

**Evolution of RASFF notifications on allergens**

![Graph showing the evolution of RASFF notifications on allergens from 2004 to 2012.](chart.png)

Purwiyatno Hariyadi
hariyadi@seafast.org
• Allergens notified in 2012

- **72 alert notification**: food products containing allergens not declared on the label (posing a serious risk to consumers), were present on the market in the European Union.

- **26 notifications/information** for attention because, while the product posed a serious risk, it was not or no longer present on the EU market.

- **5 border rejections**: products that were intercepted before they entered the EU market.

- **1 notification was transmitted as information for follow-up**, for traces of gluten found in buckwheat flour, for which the levels found were considered not to pose a serious risk to consumer’s health.
- FDA Import Refusal Report (May-July, 2009)

- FDA Food Allergen Recall Incidents
Allergen Alert: Mispackaged Hostess Candy Mix

By Olivia Morler | April 27, 2012

Krispyk of Grand Rapids, MI is recalling 16 cases of GFS® Hostess Candy Mix in 8-48 oz packages due to a packaging error. A small number of cases of the Hostess Candy Mix were inadvertently put into GFS® Chocolate Sprinkles packages.

The Hostess Candy Mix contains wheat and milk and may contain egg, none of which are declared on the Chocolate Sprinkles package.

People who have an allergy or severe sensitivity to milk, eggs, and wheat run the risk of serious or life-threatening allergic reaction if they consume these products.

No adverse reactions have been reported to date.

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Kroger Ice Cream May Contain Undeclared Allergen

By News Desk | November 7, 2012

The Kroger Co., a Cincinnati-based grocery store chain, announced Tuesday that it was recalling its house brand of French vanilla ice cream – sold in 11 states – because the product may contain pecan, a known allergen that is not listed on the label.

The recalled product, labeled as Kroger Deluxe French Vanilla Ice Cream, was sold at Dillons, Gerbes, Baker’s, King Soopers, City Market, Fry’s Food and Smith’s stores in Arizona, Colorado, Idaho, Kansas, Missouri, Montana, Nebraska, Nevada, New Mexico, Utah and Wyoming.

Other Kroger Co. stores, including QFC, Fred Meyer, Food 4 Less, Ralphs and Kroger store brand do not carry the recalled ice cream, noted the company.

The ice cream subject to this recall, “Kroger Deluxe French Vanilla Ice Cream,” is sold in 48 fluid ounce cartons with a “sell by” date of June 12, 2013 under the following UPC Code: 11110 50718.
Food Safety News

Misbranding, Undeclared Allergen Prompt Westlake Foods Recall of Cured Pork Products

By News Desk | August 25, 2013

Westlake Foods of Santa Ana, CA, has recalled more than 47,000 pounds of cured pork products due to misbranding and an undeclared allergen. The USDA’s Food Safety and Inspection Service announced Friday that the products contain wheat, a known allergen not declared on the product labels.

The products subject to recall include:

- 11-lb. to 15-lb. cases of “Tay Ho Cured Pork Artifically Colored.” This product was distributed for institutional use nationwide.

Food Safety News

Not Listing Milk as Allergen Brings Bratwurst Sausage Recall

By News Desk | September 22, 2012

Mukowski’s Real Sausage Co. in Chicago Saturday recalled some 1,305 pounds of cooked bratwurst sausage products because of misbranding and the undeclared allergen, milk, that is not declared on the label.

No illnesses have yet been associated with the recalled sausage products.

Subject to recall are:

- 10-lb. packages of “Real Sausage Co. COOKED WHITE BRATWURST 4-1”
- 10-lb. packages of “Real Sausage Co. COOKED WHITE BRATWURST 5-3”

Establishment number “EST. 6844” is marked on the package. Inside the USDA mark of inspection and the Julian dates of: 17812, 18812, 25512, 25712 or 26512.
1. Allergen is one of “chemical hazards”
2. Goal → eliminate/minimise allergen cross contact in products to provide the consumer with more choice
   - Good Allergen Management → HACCP Principles
3. Allergen Advisory Labeling → Used on products after all means for eliminating allergen cross contact have been considered
Implikasinya?

4. Updates on allergens regulatory development
5. Work with supplier
6. “Work” with regulatory agencies
7. Work with consumer → education

8. Opportunity?

“Free of Major Allergens”
Implikasinya?

8. Opportunity?

“Gluten Free”

Implikasinya?

8. Opportunity?

“Produced in a facility That does not use Peanuts, tree nuts, Eggs, or gluten”
THANK YOU

Purwiyatno Hariyadi
http://phariyadi.staff.ipb.ac.id/