

University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Faculty Publications in Food Science and
Technology

Food Science and Technology Department

3-30-2015

Quantitative risk assessment of UK food products cross-contaminated with allergens

Benjamin C. Remington
TNO, Zeist, The Netherlands

Joseph L. Baumert
University of Nebraska-Lincoln, jbaumert2@unl.edu

Marty W. Blom
TNO, Zeist, The Netherlands

Geert F. Houben
TNO, Zeist, The Netherlands

Steve L. Taylor
University of Nebraska-Lincoln, staylor2@unl.edu

See next page for additional authors

Follow this and additional works at: <http://digitalcommons.unl.edu/foodsciefacpub>

Remington, Benjamin C.; Baumert, Joseph L.; Blom, Marty W.; Houben, Geert F.; Taylor, Steve L.; and Kruizinga, Astrid G., "Quantitative risk assessment of UK food products cross-contaminated with allergens" (2015). *Faculty Publications in Food Science and Technology*. 142.
<http://digitalcommons.unl.edu/foodsciefacpub/142>

This Article is brought to you for free and open access by the Food Science and Technology Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications in Food Science and Technology by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Authors

Benjamin C. Remington, Joseph L. Baumert, Marty W. Blom, Geert F. Houben, Steve L. Taylor, and Astrid G. Kruizinga



ORAL PRESENTATION

Open Access

Quantitative risk assessment of UK food products cross-contaminated with allergens

Benjamin C. Remington¹, Joseph L. Baumert², Marty W. Blom¹, Geert F. Houben¹, Steve L. Taylor², Astrid G. Kruizinga^{1*}

From Food Allergy and Anaphylaxis Meeting 2014
Dublin, Ireland. 9-11 October 2014

Allergens in food pose a risk to allergic consumers, especially if they are present in food without declaration or warning. While there is EU regulation for allergens present as an ingredient, this is not the case for unintended allergen presence (UAP). Food companies use precautionary “may contain” labels to inform allergic individuals of a potential risk from UAPs. However, the use or absence of precautionary label has a limited correlation with the level of UAP and consequently the risk of an unexpected allergic reaction. Allergen risk assessment using probabilistic techniques enables estimation of the residual risk after the consumption of a product that unintentionally contains an allergen.

Previously, the UAP was determined among 500 packaged food products from 12 food groups in the UK, either containing a precautionary label or not (FSA,UK). In the present study, the UAP results were combined with food consumption data from the National Diet and Nutrition Survey (NDNS) in the UK and the allergen-specific population threshold distribution in a probabilistic model. Data used for the threshold distributions were gathered during the scientific review of the VITAL[®] (Voluntary Incidental Trace Allergen Labelling). The allergens of interest were milk, wheat, peanut and hazelnut. The probabilistic model estimates the level of risk for objective allergic reactions posed to the allergic consumers in the UK and gives insight in the health implications of the measured unintended allergen levels.

Also, the levels of UAP were compared to a product-specific action level (ppm) based on the reference doses as determined for VITAL[®] (mg protein) and the product specific consumption (kg).

The results of this study will assess the public health risks posed by the levels of allergen cross-contamination found to be present in food in the UK retail market and will provide insight regarding the implications of the potential implementation of the VITAL[®] reference doses in evaluation of the use of advisory labeling in the UK.

Authors' details

¹TNO, Zeist, The Netherlands. ²FARRP, University of Nebraska, Lincoln, NE, USA.

Published: 30 March 2015

doi:10.1186/2045-7022-5-S3-O10

Cite this article as: Remington et al.: Quantitative risk assessment of UK food products cross-contaminated with allergens. *Clinical and Translational Allergy* 2015 **5**(Suppl 3):O10.

Submit your next manuscript to BioMed Central
and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



¹TNO, Zeist, The Netherlands

Full list of author information is available at the end of the article

