



Agricultural Cross Contact

Assessing the risks and impacts to allergen management

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Food Safety and Security
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A circular inset image showing a blue harvester working in a field of tall, golden-brown grain. The harvester is moving from right to left, leaving a trail of dust or chaff behind it. The background shows a line of trees under a bright, hazy sky.

Informing the
food industry

Allergen Bureau

- The Allergen Bureau is the peak industry body representing best practice food industry allergen management globally
- Membership based organisation established to provide food industry with rapid responses to questions about allergen risk management in food ingredients and manufactured foods
- Established in 2005, pre-competitive, 'not-for-profit', Allergen Bureau directors provide voluntary, unpaid services

Global Member



Full Members



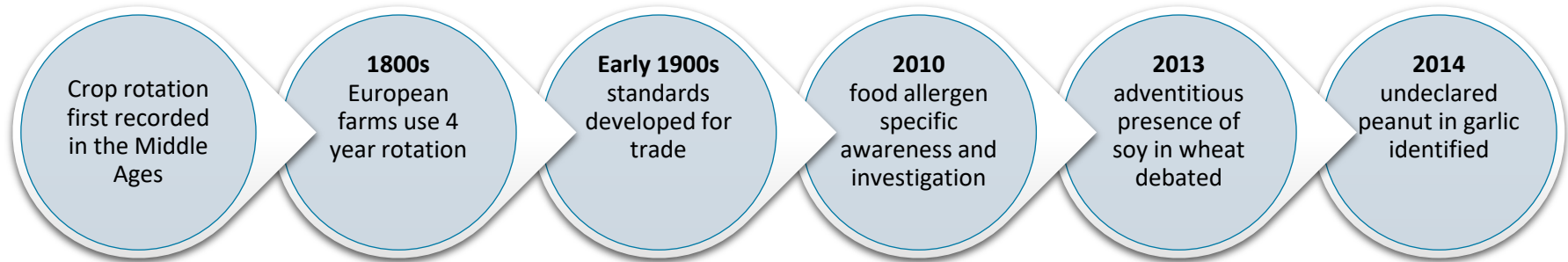
•ALDI Stores
•BBF Hull Limited

What is Agricultural Co-Mingling?

Agricultural co-mingling is the result of different crops being grown in proximity with each other, sharing the same fields due to crop rotation, and/or sharing the same equipment/facilities for harvesting, transport, and storage, despite the application of allergen controls as part of Good Agricultural Practices (GAPs).



What do we know about Agricultural Co-Mingling?



- Agricultural practices are unlikely to change, however GAP are encouraged
- Industry requires a way in which to identify and manage the presence and prevalence of potential allergen cross contact

Why was the Resource Needed?



The two key questions that required answering are:

1. How do you obtain accurate information?
2. How do you use the information once you have it?

Unpacking the Peanut in Garlic?

- Why were undeclared allergens were present
 - Varied geographical locations
 - Only value added
 - Intentional verses adventitious presence??
- What was the public health risk?
- How does industry assess the risk?
 - Variable levels in the ingredient
 - Was it particulate?
 - What the risk in the finished product?
- Is the testing accurate?
- How extensive is this issue in other commodities?
- Peanut free garlic?

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2019/20 Peanuts in Cashews

- International recalls commenced in Europe & UK in Pesto products
- Only value added (flour, meal and pieces)
- Intentional verses adventitious presence??
- Public health was a risk – consumer reactions reported
- Industry were challenged in the variables
 - Variable levels in the ingredient
 - Test methods varied globally
 - Sampling approaches varied
 - The supply chain was not understood
- Standardised industry guidance was required!



How is Peanut in Soy Lecithin Different in 2022?

- Peanut identified in soy lecithin from India (April 2022)
- Possible cause identified at the mill
- Variable levels on peanut detected
- Ingredient is generally used in a small percentage
- Food authorities advise to increase surveillance testing, and conduct a finished product risk assessment

<https://www.greatitalianfoodtrade.it/en/sicurezza/rasff-arachidi-nella-lecitina-di-soia-dallindia-analisi-del-rischio/>

<https://www.foodsafetynews.com/2022/08/uk-agencies-urge-testing-of-soy-product-from-india-because-of-peanut-risk/>



The Allergen Bureau's Agricultural Co-Mingling Working Group has been committed to producing a practical guidance to assist industry to identify and manage agricultural cross contact risk.



Who Is The Guide For?

Relevant to all areas of the food industry the new guide will be a useful tool for

- growers,
- primary producers,
- food ingredient manufacturers, importers,
- suppliers,
- food business operators (FBO's),
- importers of packaged foods.

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The Resource Provides Guidance on:

1. Agricultural co-mingling
 - a) Information on cross contact allergens associated with crops and commodities
 - b) Agricultural practices and controls
2. Ingredient questionnaire
3. Risk rating matrix and recommended sample numbers
4. Sample collection, volume, frequency
5. Allergen analysis recommendations
6. Intended use of the outcomes of analysis
7. Case studies



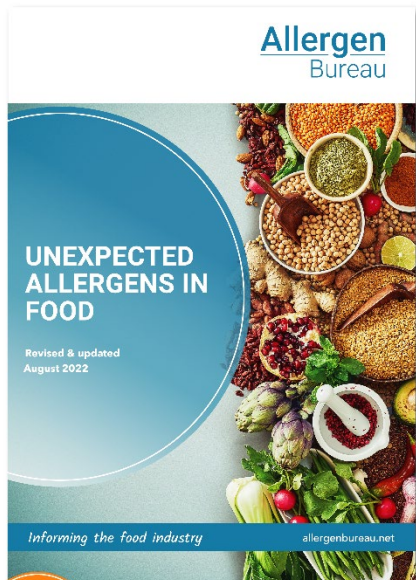
Business Impacts to Consider

- Supply chains are complex and uncontrollable
- Risks still require identification
- Unexpected allergen presence occurs due to:
 - Intentional addition (VACCP) or;
 - Unintentional / accidental – adventitious presence
- Due diligence must always be demonstrated, even when it's hard
 - “applying all practicable measures”
- Brand and reputation damage
- Recalls cost \$\$

An aerial photograph of a vast, golden-brown agricultural field, likely a wheat or corn field, showing distinct rows of crops. A red banner with the text "PRODUCT RECALL" in white, bold, sans-serif capital letters is superimposed diagonally across the lower right portion of the image. The banner has a slight 3D effect with a shadow. In the background, a small blue and white tractor is visible in the field.

PRODUCT RECALL

Resources Available



Free
Resources
for Industry

Unexpected Allergens in Food provides the food industry with a list of foods, ingredients and raw materials that may unexpectedly contain allergens.

Download at allergenbureau.net



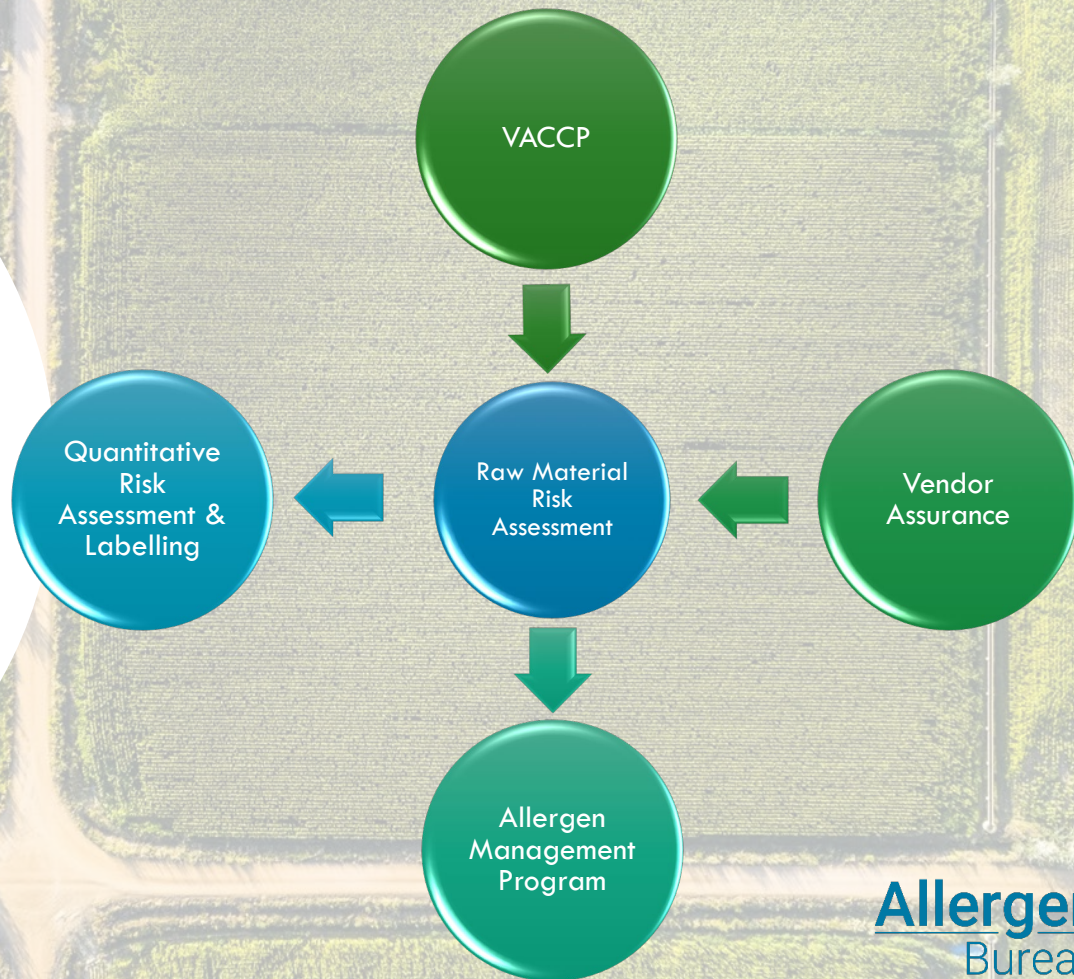
Free
Resources
for Industry

The guide assists industry to identify and manage agricultural cross contact risk.

Download at allergenbureau.net



**Designed to
integrate with
and inform other
existing programs**



Overview Of The Risk Assessment Steps

Use the guide,
supplier and raw
material information
complete the Raw
Material Risk Matrix
Questionnaire

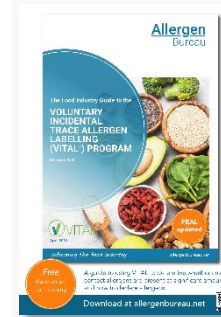
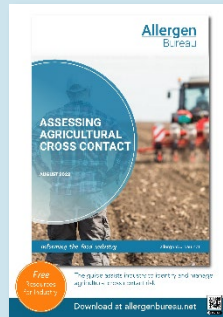
Determine the risk
rating:
Low
Medium
High

Use sampling
guidance to collect
the number of
samples required

Conduct allergen
analysis, review
results, determine
presence and
prevalence

Use the outcome to
inform your
Allergen
Management Plan
and Quantitative
Risk Assessment

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Presence and Prevalence

Presence

- Considers the form of the allergen
- Is the allergen detectable
 - visual and or analytical

Prevalence

- How often can you detected the allergen in the number of samples?
- Inform the level of risk introduced into the facility



Sampling Guidance

Risk Rating	Number of Samples	Supporting Standards
Low	5	EN ISO 948:2009 Spices and condiments Sampling ⁸
Medium	Minimum 10. Square root of consignment (if above 100 units)	USFDA Investigations Operations Manual 2020 Chapter 4 – Sampling section 4.3.7.2 Random Sampling ¹² EN ISO 948:2009 Spices and condiments Sampling ⁸ DS/CEN/TS 15568 2007 Foodstuffs – Methods of analysis for the detection of GMO and derived products – Sampling strategies, Section 7 ⁷
High	Minimum 15. 10 % of consignment (if above 150 units)	Codex CAC/GL 50- 2004, Table 8, page 34 based on the ICMFS Micro sampling guides ⁹ EN ISO 948:2009 Spices and condiments Sampling ⁸ DS/CEN/TS 15568 2007 Foodstuffs – Methods of analysis for the detection of GMO and derived products – Sampling strategies, Section 7 ⁷

How were the sample number decided?

- Review of current sampling standards for commodities
- No sampling plans for allergens in commodities
- All sampling plans for commodities assume homogeneity
 - Sample numbers decrease the larger the lot size
- Required a “sweet spot”
 - Enough samples to give confidence in determining prevalence
 - Acceptable cost to industry

Application of the Risk Assessment Outcomes

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1. Raw material

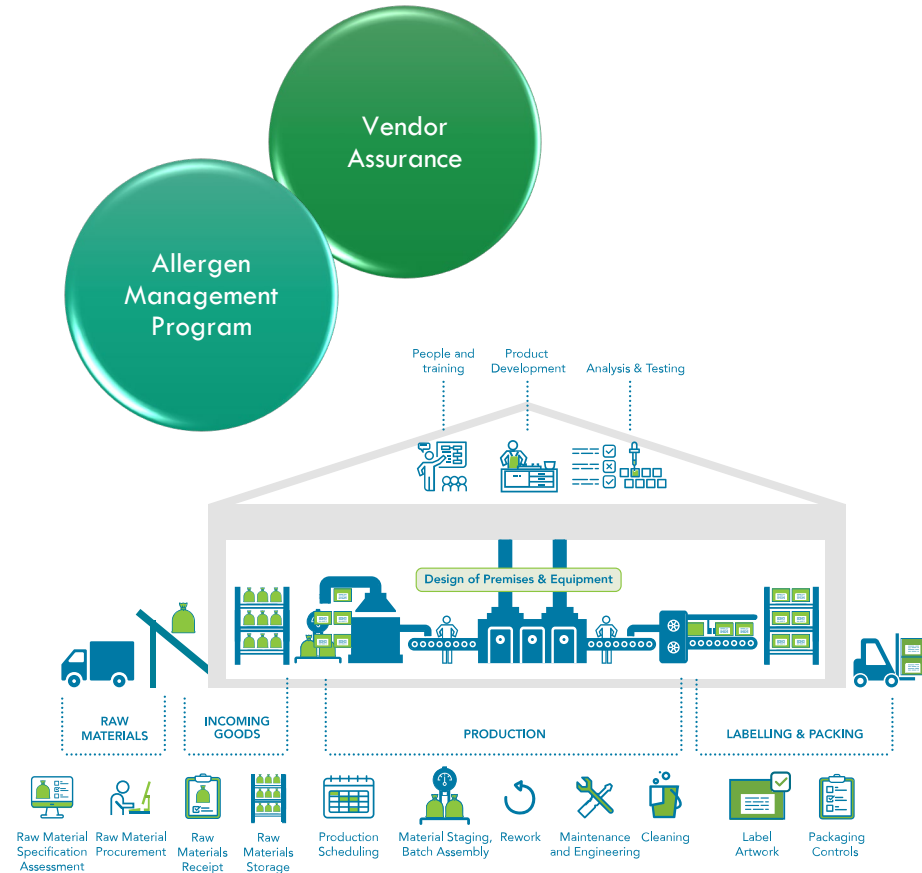
- Information may be difficult to obtain
- Lacking information results in a higher risk rating outcome
- Risk reduction strategies can be implemented when gaps are identified
- Detection of allergens through analysis and/or visual assessment informs allergen management practices



2. Allergen Management

Determining **presence and prevalence** of the allergen in the material:

- Informs the allergen risk profile in the facility
- Informs AMP procedures
 - Material handling procedures
 - Production scheduling
 - Cleaning



3. VITAL[®] 3.0 Risk Assessment

- Identifies the form of the ingredient cross contact
- Allows the business to assess further processing impacts (milling, grinding. etc)
- Analysis informs variability of presence and prevalence (ppm) and aids in determining likely maximum cross contact levels
- Where assessed agricultural cross contact is determined to be homogeneous, unavoidable and sporadic, this can be used in a VITAL risk assessment

Quantitative
Risk Assessment
& Labelling



***“We can only do what we do
because of our members financial
support”***

The new Assessing Agricultural Cross Contact 2022 Guide is a perfect example of how we use these resources to develop tools for the benefit of the whole industry.

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The Sample and Testing Sub-Working Group

- Una Mullany (The Coca Cola Company)
- Rhonda Spyrou (The Kraft Heinz Company),
- Vivienne Balm (The Kraft Heinz Company),
- Dean Clarke (National Measurement Institute),
- Kieran Hopkins (SGS),
- Karl Kusko (ALS Global)
- Joanne Price (HJ Langdon).

We sincerely thank this team for volunteering their time outside of work hours



Webinar Coming Soon

Save the date – 5th October 2022

Details to be announced shortly!

*Webinar
Coming
Soon*



THANK YOU

Don't forget to tell your ideas about this presentation and share it with us!

CONTACT US:



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