



Connecting food safety professionals

safefood Knowledge Network training workshops:



Food Allergens

Scale of the problem for food businesses

- ✧ FSAI: 42% food alerts in 2016 due to allergens 54% in 2015
- ✧ Milk, soybeans, eggs and nuts were the most common allergens incorrectly labelled/declared in 2016.
- ✧ The main reasons for the food allergen alerts were usually:
 - the allergen was unknowingly incorporated in the product and therefore not listed in the ingredients;
 - the ingredients list/label was not in English;
 - mis-packing of a product with the wrong product in the wrong pack.



Types of Product Recall

- ✎ Instigated by the food business (vast majority)
- ✎ Instigated by other EU Member States for products on the Irish market
- ✎ Instigated by regulators following sampling and analysis (especially 'Free-from' foods)

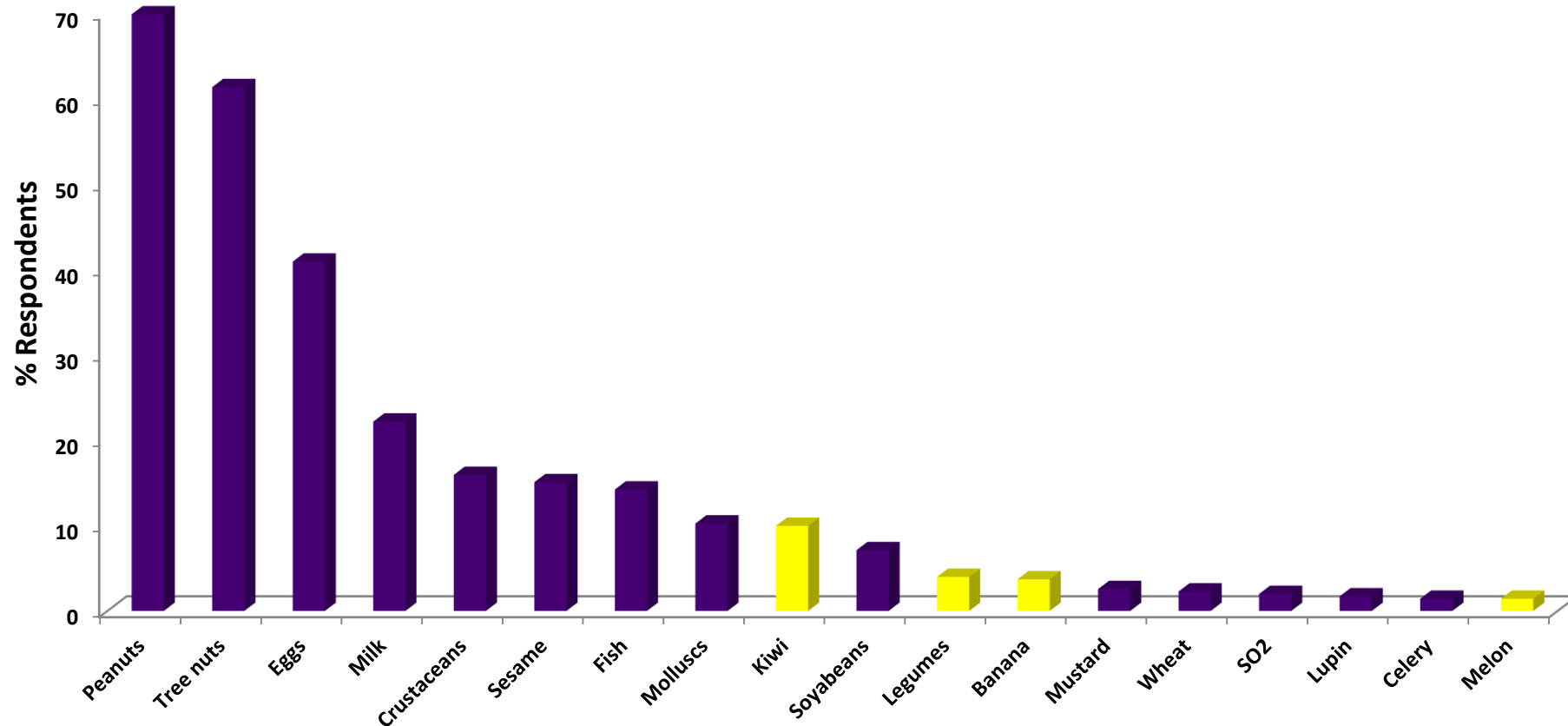


Food Hypersensitivity: Prevalence in Ireland

- ❖ Prevalence of food allergy similar to UK rates (5-8% children & 1-2% adults) and overall European rates (3-4% of the population)
- ❖ The trend in the prevalence of food allergy is increasing
- ❖ Prevalence of Coeliac Disease is ~1% (underdiagnosed)
- ❖ Prevalence of food intolerance: lactose intolerance ~5%; gluten??; other???
- ❖ Overall prevalence of food hypersensitivity: estimates 15 – 45% of the whole population. If 15%, then >700,000 people.



What are the most common food allergies on the island of Ireland?



safefood, 2013



Connecting food safety professionals

Foods also avoided due to lifestyle choices

The total *Free From*
From market in
ROI = €60m+
UK = £530m

2016 Mintel



300,000 Irish
adults purchase
'Free From'
foods regularly
each week.

(Bord Bia, 2016)



Why the rise in food allergy?

Theories include:-

- ✓ Atmospheric pollution
- ✓ Greater use of detergents and chemicals
- ✓ Sterile cleaning products, carpets, curtains, soft furnishings
- ✓ Home central heating
- ✓ Overuse of antibiotics
- ✓ Over consumption of processed foods

We don't know



What allergen information is required on the label?

The name of the allergen should be emphasised through

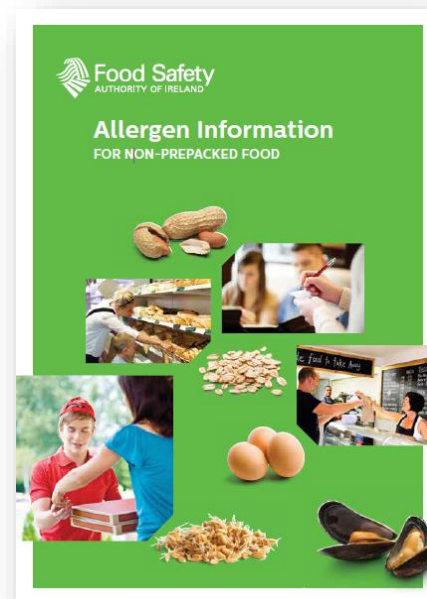
a typeset that clearly distinguishes it from the rest of the list of ingredients

for example by means of the font, style or background colour.



Cereals containing gluten

- ✓ Wheat, spelt, khorasan wheat (commercially known as kamut), rye, barley and oats
- ✓ On the label: For example gluten (**wheat**).....
- ✓ What about gluten free oats?
- ✓ What about quinoa, amaranth or buckwheat?
- ✓ What about bulgur wheat?
- ✓ What about couscous?
- ✓ Corn flour, rice flour, tapioca starch, potato starch, potato flour and sorghum flour do not warrant labelling.



Labelling for gluten

- ✧ “Gluten-free” = only foods that contain 20 parts per million (ppm).
 - Includes uncontaminated oat products that contain no more than 20 ppm
 - Includes gluten-free wheat starch with a gluten content < 20ppm.
- ✧ “Very low gluten” = specialist substitute products (such as breads and flour mixes) that contain gluten-free (Codex) wheat starch with a final level of gluten between 21 and 100 ppm.
- ✧ “No Gluten Containing Ingredients”
 - Cannot be used on individual products or dishes.
 - Can be used in menus when listing a group of dishes or in menu titles to indicate that all the items in question do not have gluten containing ingredients.
 - Can be used to describe the gluten status of a list or range of products for sale in a shop or online.



Peanuts and products thereof

Nuts



- ✓ Used in a variety of food products and cuisines.
- ✓ Highly refined peanut oil is OK; crude peanut oil still contains protein.
- ✓ Always check the label of nut/spice products.

- ✓ Labelling?
- ✓ Coconuts, pine nuts or chestnuts do not warrant labelling.
- ✓ Exceptions – see legislation.

- ✓ **Nuts & nut products:-**
- ✓ Almonds
- ✓ Hazelnuts
- ✓ Walnuts
- ✓ Cashews
- ✓ Pecan nuts
- ✓ Brazil nuts
- ✓ Pistachio nuts
- ✓ Macadamia or Queensland nuts

Egg and products thereof

Milk and products thereof



- ✓ Egg-derived ovalbumin, albumin or lysozyme are allergenic
- ✓ Egg lecithin – not allergenic
- ✓ Albumin proteins from egg, mustard, Brazil nut, castor bean and sesame seeds are allergenic.
- ✓ If in doubt, then label.
- ✓ Exceptions – see legislation

Labelling:
...ovalbumin (**egg**).....



- ✓ Includes milk from other mammalian species as well
- ✓ Alternatives such as soya and rice are not now defined as 'milk' and may have nutrition/contamination deficits.
- ✓ Exceptions – see legislation

Crustaceans and products thereof

Molluscs and products thereof



- ✓ Crab
- ✓ Lobster
- ✓ Prawn
- ✓ Shrimp
- ✓ Langoustine
- ✓ Crayfish
- ✓ Etc.



- ✓ Mussels
- ✓ Scallops
- ✓ Oysters
- ✓ Clams
- ✓ Squid/Octopus
- ✓ Snails
- ✓ Periwinkles
- ✓ Etc.

Labelling:

.....prawn (**crustaceans**).....

.....oyster (**molluscs**).....

Fish and products thereof

Sesame and products thereof



- ✓ Fish ingredients in a variety of foods
- ✓ Labelling
- ✓ Fish oil supplements
- ✓ Exceptions – see legislation



- ✓ Found in a wide variety of food products
- ✓ Tahini
- ✓ Sesame oils



Soybeans and products thereof

Mustard and products thereof



- ✓ Includes soya milk.
- ✓ Highly refined soybean oil is safe. However, unrefined oil may still contain protein.
- ✓ Some vitamin additives used in foods are derived from soya as are phytosterols and plant stanol esters. These are not allergenic.



- ✓ Mustard is found in a wide variety of food products
- ✓ All forms of mustard can be allergenic.
- ✓ Canola/rapeseed oil do not warrant labelling

Lupin and products thereof

Celery and products thereof



- ✓ Lupin is naturally gluten free
- ✓ Co-allergenicity with other allergens
- ✓ Allergy sufferers must avoid both celery and celeriac
- ✓ Celery salt



Sulphur dioxide and sulphites



- ❖ Sulphur dioxide (E220) and other sulphites (E221, E222, E223, E224, E226, E227 and E228)
- ❖ Problematic for those with asthma or allergic rhinitis.
- ❖ 10mg/kg or 10mg/litre in terms of the total sulphites in the final food product that is ready for consumption.
- ❖ Labelling: “Preservative: **Sulphur dioxide**”. Not sufficient to label just the E number.
- ❖ For products where a list of ingredients is not required (e.g. alcoholic beverages with >1.2% by volume of alcohol) the label must still indicate the presence of sulphur dioxide, e.g. ‘contains sulphur dioxide’.






Ingredient labelling

Where the name of the food (i.e. box of eggs, bag of peanuts) clearly refers to the allergen concerned, there is no need for a separate declaration of the allergenic food.

The voluntary use allergen advisory boxes to declare the presence of allergenic ingredients in prepacked foods are **not permitted** under Reg 1169/2011



When listing of the allergen is NOT required

-  Fresh fruit and vegetables, including celery, that has not been peeled, cut or similarly treated.
-  Cheese, butter, fermented milk and cream, to which no ingredient has been added other than products used in the manufacturing.
-  Foods consisting of a single ingredient where the name of the food is identical to the ingredient name.



What about unregulated food allergens?



**Food processing can use any aspect of
any food to achieve any characteristic
in any other food!**



Precautionary Allergen Labelling

- ❖ Entirely voluntary.
- ❖ Shouldn't mislead the consumer.
- ❖ Only used following a thorough risk assessment when you think there is a real chance of allergen cross-contamination that cannot be eliminated.
- ❖ Consumers place more trust in specific/explicit types of labelling compared to 'precautionary labelling' with the expression 'not suitable for someone with X allergy' the preferred choice (**safefood** research 2015).



What's coming down the line?

- ✎ The Commission shall adopt implementing acts on the application of the requirements referred to in paragraph 2 of this Article to the following voluntary food information:
 - a) information on the possible and unintentional presence in food of substances or products causing allergies or intolerances;
 - b) information on the absence or reduced presence of gluten in food.

**In other words, PAL
will be tightened up!!**

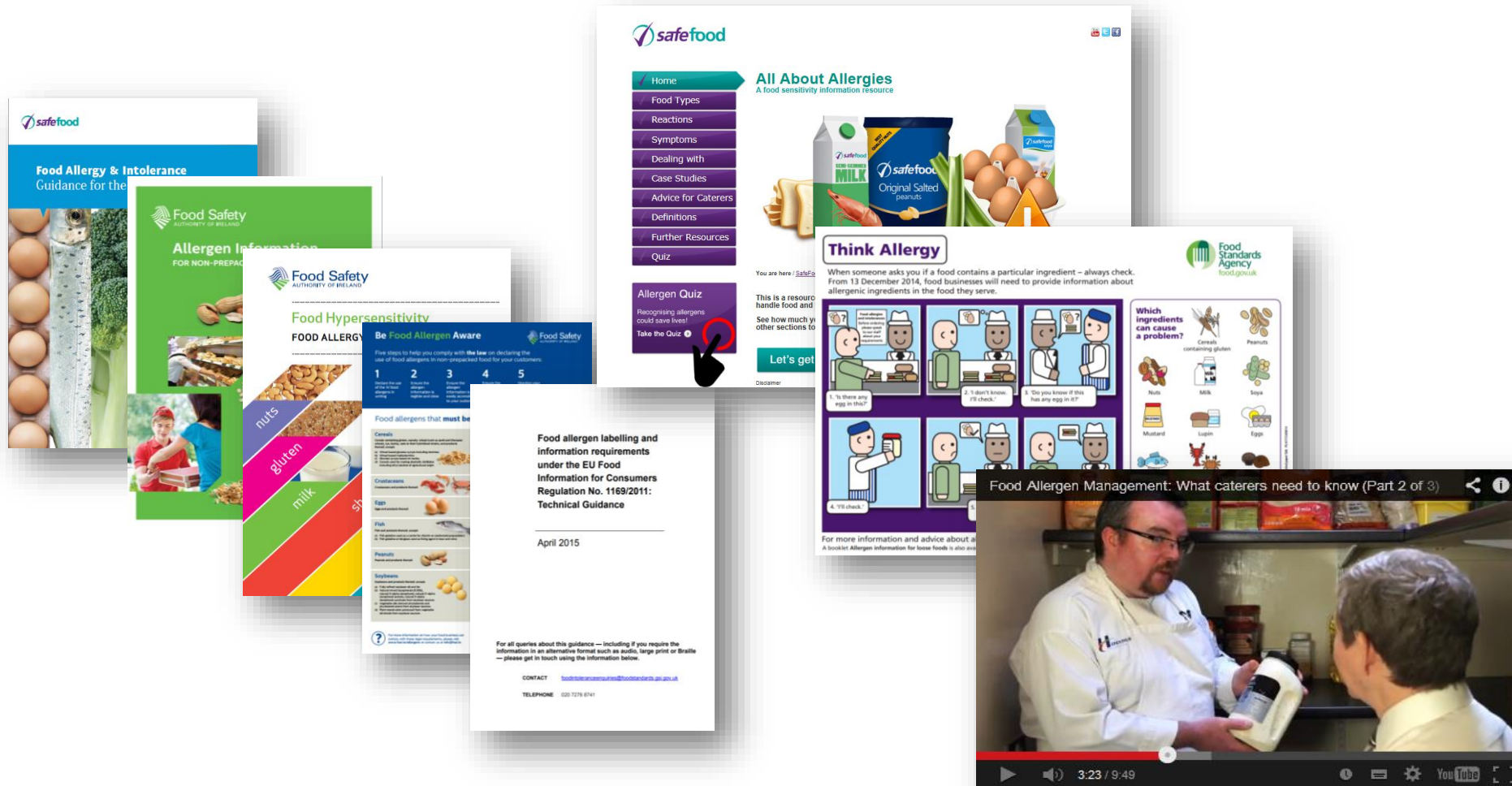


Allergen testing

- ✓ Food allergen tests are available for Crab, Lobster, Crayfish, Egg, Molluscs, Wheat, Rye, Barley, Fish, Gluten, Lactose, Galactose, Casein, Peanut, Soya, Hazelnut, SO₂
- ✓ Coeliac Society of Ireland: Information on gluten testing
- ✓ Questions for food producers include:
 - Is the test/testing laboratory accredited for this test?
 - How often should I get my product tested?
 - Will the laboratory also interpret the results?



Resources



The collage features several key resources:

- Food Allergy & Intolerance Guidance for the Food Industry** (Brochure)
- Food Safety Authority of Ireland: Allergen Information for Non-Prepared Foods** (Brochure)
- Food Safety Authority of Ireland: Food Hypersensitivity** (Brochure)
- Food Safety Authority of Ireland: Be Food Allergen Aware** (Brochure)
- Food Allergen Labelling and Information Requirements under the EU Food Information for Consumers Regulation No. 1169/2011: Technical Guidance** (Document, dated April 2015)
- safefood Website: All About Allergies** (Screenshot showing a navigation menu with options like Home, Food Types, Reactions, Symptoms, Dealing with, Case Studies, Advice for Caterers, Definitions, Further Resources, and Quiz. It also features an 'Allergen Quiz' section and a 'Think Allergy' section with a cartoon illustration of a chef and a customer.
- Food Standards Agency: Which ingredients can cause a problem?** (Infographic showing common allergens like Nuts, Milk, Soya, Mustard, Lupin, Eggs, and Peanuts).
- Food Allergen Management: What caterers need to know (Part 2 of 3)** (Video player showing a chef in a kitchen setting).



Connecting food safety professionals
Enhancing food safety

Thank You!
Any questions?

