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How to label allergens

Seminar regarding food safety in the dairy sector, Mejeriteknisk Selskab

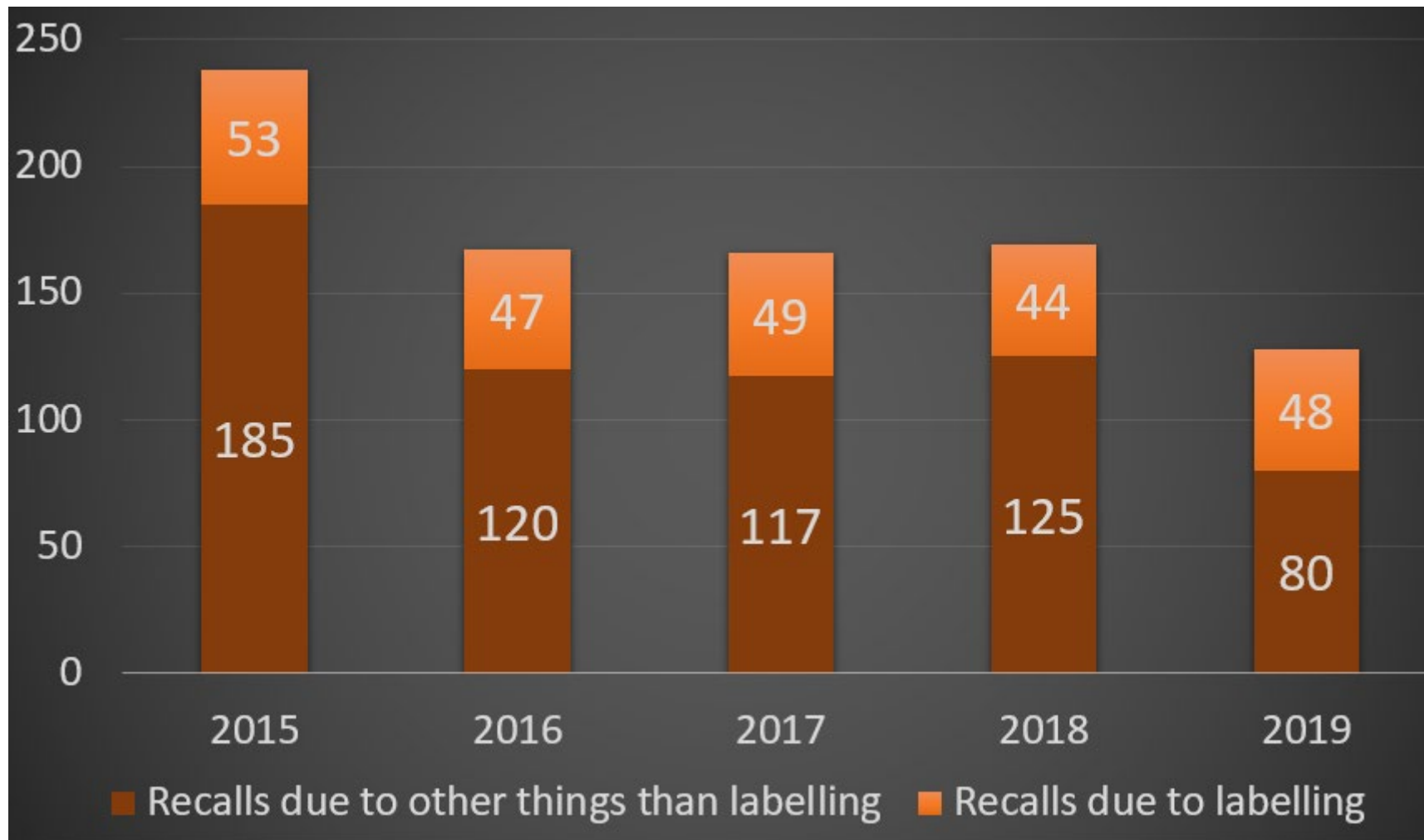
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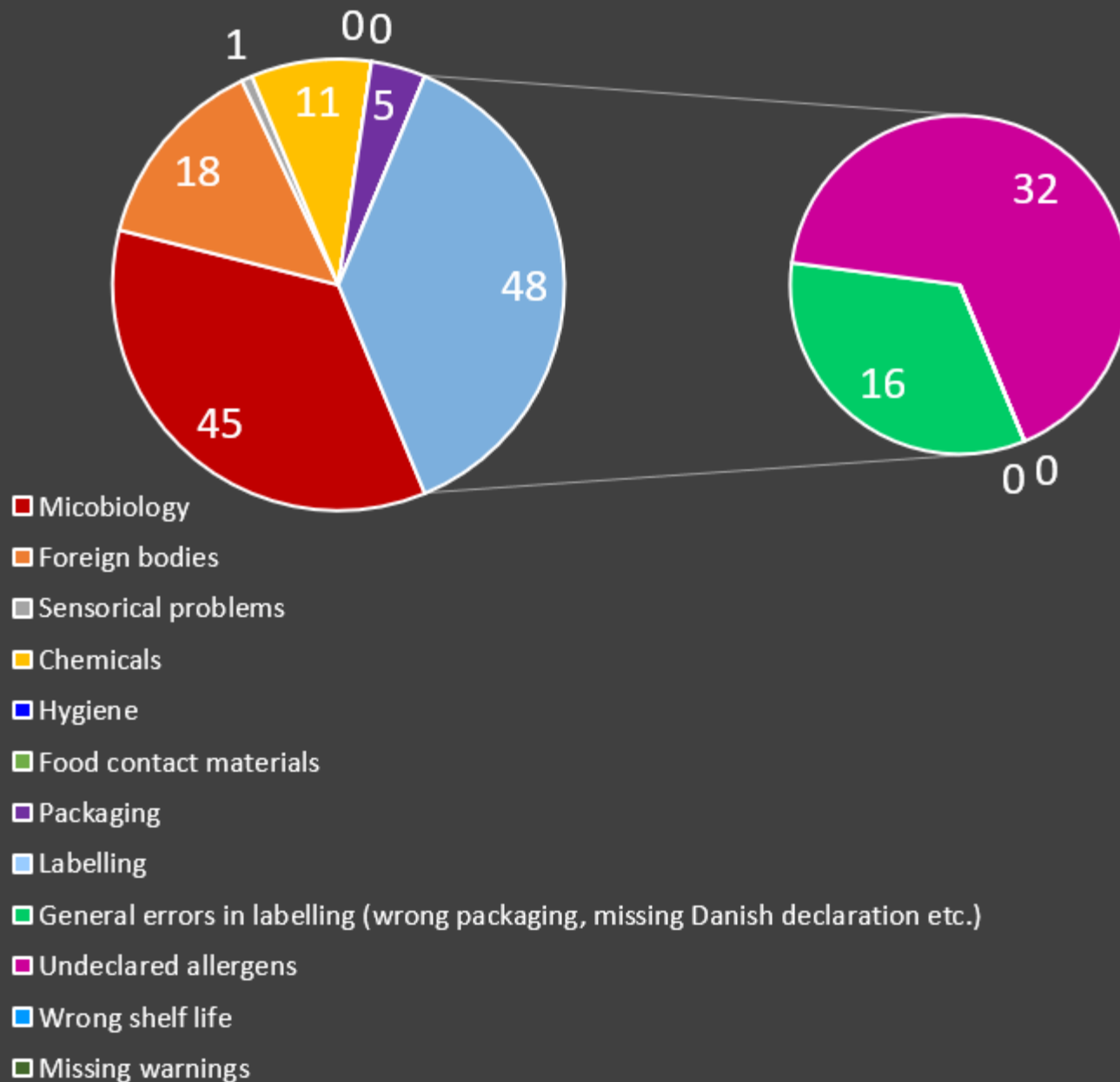
Agenda

- Food recalls in Danmark
- Best practices for avoiding allergen recalls
- Allergen labelling rules
- Trace labelling
- Assessment of unintended content of allergens
- NOFA (Network On Food Allergens)

Overview of 2015-2019



Recalls in Denmark in 2019



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30 due to undeclared allergens
2 without allergens visually emphasized

Best practices for avoiding allergen recalls



- Get your labels checked by external experts/consultants before print
- Be sure that allergens are well incorporated into the HACCP-program
- Educate your staff and build up their knowledge about allergens
 - Are they all aware of the allergen list, including sulphites?
 - Are they aware of how little allergenic raw material it takes to cause a reaction?
- Allergen control is the responsibility of the whole company – not only Quality Department
- Use external experts for development of risk assessment and validation programs
- Perform internal and external audits with allergen trained staff

SUBSTANCES OR PRODUCTS CAUSING ALLERGIES OR INTOLERANCES

▼M2 ↓

1. Cereals containing gluten, namely: wheat (such as spelt and khorasan wheat), rye, barley, oats or their hybridised strains, and products thereof, except:
 - (a) wheat based glucose syrups including dextrose (¹⁵);
 - (b) wheat based maltodextrins (15) ;
 - (c) glucose syrups based on barley;
 - (d) cereals used for making alcoholic distillates including ethyl alcohol of agricultural origin;
2. Crustaceans and products thereof;
3. Eggs and products thereof;
4. Fish and products thereof, except:
 - (a) fish gelatine used as carrier for vitamin or carotenoid preparations;
 - (b) fish gelatine or Isinglass used as fining agent in beer and wine;
5. Peanuts and products thereof;
6. Soybeans and products thereof, except:
 - (a) fully refined soybean oil and fat (15) ;
 - (b) natural mixed tocopherols (E306), natural D-alpha tocopherol, natural D-alpha tocopherol acetate, and natural D-alpha tocopherol succinate from soybean sources;
 - (c) vegetable oils derived phytosterols and phytosterol esters from soybean sources;
 - (d) plant stanol ester produced from vegetable oil sterols from soybean sources;
7. Milk and products thereof (including lactose), except:
 - (a) whey used for making alcoholic distillates including ethyl alcohol of agricultural origin;
 - (b) lactitol;
8. Nuts, namely: almonds (*Amygdalus communis* L.), hazelnuts (*Corylus avellana*), walnuts (*Juglans regia*), cashews (*Anacardium occidentale*), pecan nuts (*Carya illinoensis* (Wangenh.) K. Koch), Brazil nuts (*Bertholletia excelsa*), pistachio nuts (*Pistacia vera*), macadamia or Queensland nuts (*Macadamia ternifolia*), and products thereof, except for nuts used for making alcoholic distillates including ethyl alcohol of agricultural origin;
9. Celery and products thereof;
10. Mustard and products thereof;
11. Sesame seeds and products thereof;
12. Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre in terms of the total SO₂ which are to be calculated for products as proposed ready for consumption or as reconstituted according to the instructions of the manufacturers;
13. Lupin and products thereof;
14. Molluscs and products thereof.

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 entic versions of the relevant acts, including their preambles, are those published in the Official Journal of the European Union and
 available in EUR-Lex. Those official texts are directly accessible through the links embedded in this document

REGULATION (EU) No 1169/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
 of 25 October 2011

on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the
 Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission
 Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and
 and Commission Regulation (EC) No 608/2004

(Text with EEA relevance)

(OJ L 304 22.11.2011, p. 18)



Declaration of allergens depends on sales situation

1. Pre-packed foods

- **Regulated by food information to the consumers, 1169/2011**

2. Non-prepacked foods, foods packed on the sales premises at the consumer's request and direct sale (one day)

- Regulated by national rules

3. Prepacked for direct sale

- Regulated by national rules



Declaration of allergens, pre-packed foods

FIC 1169/2011, article 21

Allergenic ingredients must be declared

- Using their specific designation
- With a clear reference to the name of the substance or product as listed in Annex II
- Regardless of quantity (except for SO₂ and sulphite)
- The name of the substance or product as listed in Annex II shall be visually emphasized compared to other ingredients
- In the absence of a list of ingredients, the indication of allergens shall comprise the word 'contains'
- Technical processing aids, carriers and additives without function in the finished product must be declared if they are allergen
- Allergens must be emphasized each time it occurs in the ingredient list
- Box labelling is only allowed for wine



Use the specific designations for gluten containing cereals and nuts

The specific designations for the 4 gluten containing cereals are

- Wheat
- Rye
- Barley
- Oats

The specific designations for the 8 different (tree) nuts are

- Almonds
- Hazelnuts
- Walnuts
- Cashews
- Pecan nuts
- Brazil nuts
- Pistachio nuts
- Macadamia or Queensland nuts (NOTE: only "Queenslandnødder" is valid according to the Danish version of FIC 1169/2011, Annex II)



Declaration of allergens, pre-packed foods

FIC 1169/2011, article 21

- **Sulphur dioxide and sulphites – the only allergen with a threshold with respect to labelling**
 - If content in the food – as intended to be consumed – is **higher than 10 mg/kg**: Use specific name of the additive and emphasize visually like this: Ingredients: Xxx, xxx, preservative (**sodium sulphite**),xxx, xxx.
 - If content in the food – as intended to be consumed – is **lower than 10 mg/kg**: normal labelling rules should be used, e.g., like this: Ingredients: Xxx, preservative (E 221), xxx, xxx.
- **Threshold on gluten and lactose**
 - Related to labelling of products for consumers with celiac disease and gluten and lactose intolerance
 - Is not related to allergen labelling
- **The rules regarding allergen labelling regards added ingredients and NOT those that are unintendingly present (often mentioned in trace labelling)**



Declaration of allergens, pre-packed foods

FIC 1169/2011, article 21

- In the absence of a list of ingredients, the indication of allergens shall comprise the word 'contains' unless the name of the allergen is mentioned in the legal name of the product.
- The demand for visual emphasizing lapses



Beer
Alc. 4,6% vol.

Contains
barley and
wheat

33 cl



Contains sulphites

Examples of
how allergenic
ingredients
can be visually
emphasized in
the ingredient
list

Example 1:

Ingredienser: Pork liver, whole **milk**, pork fat, **egg**, onion, water, **wheat** flour, marinated anchovies (**fish**), olive oil, salt, black pepper.

Example 3:

Ingredienser: Pork liver, whole MILK, pork fat, EGG, onion, water, WHEAT flour, marinated anchovies (FISH), olive oil, salt, black pepper.

Example 2:

Ingredienser: Pork liver, whole **milk**, pork fat, **egg**, onion, water, **wheat** flour, marinated anchovies (**fish**), olive oil, salt, black pepper.

Example 4:

Ingredienser: Pork liver, whole **milk**, pork fat, **egg**, onion, water, **wheat** flour, marinated anchovies (**fish**), olive oil, salt, black pepper.



Examples of recalls due to allergens



Chili con Carne Seasoning

Undeclared allergens

Watch out for compound ingredients and brand names

Ingredients: 38% chili, cumin, garlic powder, salt, oregano, onion powder, **aromat**, sugar, potato fibres, anti-caking agent (E 551).



Examples of recalls due to allergens



Chili con Carne Seasoning

Undeclared allergens

Watch out for compound ingredients and brand names

~~Ingredients: 38% chili, cumin, garlic powder, salt, oregano, onion powder, **aromat**, sugar, potato fibres, anti-caking agent (E 551).~~

Ingredients: 38% chili, cumin, garlic powder, salt, oregano, onion powder, **savoury seasoning (salt, flavour enhancer (E 621), lactose (milk), yeast extract, onion powder, palm fat, spices (contains celery))**, sugar, potato fibres, anti-caking agent (E 551).



Examples of recalls due to allergens



Allergens not emphasised

Ingredients: **almonds, peanuts**, rapeseed oil, salt, soya sauce (water, soya, wheat, salt).



Ingredients: **almonds, peanuts**, rapeseed oil, salt, soya sauce (water, **soya, wheat**, salt).



Allergy toll rises as another young Australian suffers fatal dairy reaction

by Imcleod / 📅 August 21, 2018 / 🗂️ Consumer Information, Industry News / 💬 0

- August 2018: 6-year-old Australian girl dies because of allergic reaction to milk
- Milk is the cause of three out of five deaths related to food allergy in Australia





Sandwichkæde presset af flere dødsfald

8. oktober 2018 10:25 | Af Redaktionen/Dit

Pret

Undeclared allergens causes two deaths in the UK

- Sesame seeds added as ingredients in bread
- Milk protein in **vegan** bread

Pret A Manger er presset for sin mangelfulde mærkning af allergener efter to dødsfald. Det skriver flere internationale medier, deriblandt CNN.

I 2016 døde en 15-årig pige på et fly efter at have spist en sandwich fra kæden og senere en salat. Det blev bekræftet, at en anden

Kilde: Food Supply DK



Pret A Manger er kommet under pres, da flere er



Trace labelling

- Uncritical trace labelling is not allowed
- Can be used if cross-contamination is unavoidable
- Limits the assortment in the supermarkets for allergic consumers – not allowed
- Must be as accurate as possible
- Allergens should not be highlighted visually in trace labelling
- The wording for trace labelling is not regulated
- Work for defining threshold values for allergens has been initiated and stopped again at EU-level





Can threshold values on trace labelling improve labelling and risk assessment?

- It will help industry to move from precautionary trace labelling to fact-based trace labelling
- Trace labelling should only be used when the expected intake of a given trace allergen, exceeds the eliciting dose
 - Eliciting doses are estimated from probability calculations and may vary between individuals etc.
- The phrasing for trace labelling must be regulated
- Consumers must be trained and educated in understanding labelling information



Should trace labelling be transferred from ingredients to new products?



Chocolate. Cocoa solids: 67% minimum.
Ingredients: cocoa mass, sugar, cocoa butter,
emulsifier (sunflower lecithins).
May contain soya.



Chocolate cake. Ingredients: **Wheat** flour, sugar,
eggs, 10% chocolate (cocoa mass, sugar, cocoa
butter, emulsifier (sunflower lecithins)), **milk**, vanilla
flavouring.

May contain soya????



Should trace labelling be transferred from ingredients to new products?



Quantification of soya protein



Estimated portion size

The intake of soya protein can be estimated

Conditioned on the assumption that soy is evenly distributed, and present as larger particles.

If the estimated intake is higher than eliciting dose -> use trace labelling

If the estimated intake is lower than eliciting dose -> trace labelling is not necessary

NOFA – Network On Food Allergens

Network meetings are confidential debate and knowledge sharing, update on legislation and standard, gaining new knowledge from experts, subjects selected by the members

Two yearly meetings, access to a closed NOFA chat room
Example of subjects: specific cases presented by members, assessment of trace levels, acceptable risks, representative sampling, allergic reactions

17 members (food producers, mass caterers, process and packaging, laundry)

Next meeting is on 21st of April 2021, "Food allergy from a consumer perspective"



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Food Diagnostics





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Questions to how to label allergens?

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