



Answered questions

Expert Talk: Allergens

What allergen is the most difficult to detect?

It depends a bit, it's a very good question in a sense there are several steps to detect an allergen. The first step is really to extract the allergen from the food matrix. Then you need, the antibody that detects it, that is very specific and finally you also need technical skills to be able to detect the allergen. I would say, gluten is definitely not easy to detect, although by now there are very good techniques on the market. Gluten is a protein that is very sticky, like a chewing gum and the first step is use a good extraction buffer, because gluten is only dissolvable in ethanol, if you don't do that it will be difficult. And then use an antibody, as well as we depend on the food matrix. It is not the same detecting gluten in rice flour than in something that is extremely processed like cornflakes. So gluten is not easy, as well as I mentioned celery, there is no antibody for celery, why is that? When we try to develop an antibody for celery you have a lot of cross reaction, when you have raw celery and boiled celery, what we want is for instance detecting celery in soup, this is a big challenge.

So when during validation tests, the analysed value is lower than the vital norm, you don't have to put a warning on the packaging?

That is correct. You have to take into consideration the dose, if it's a big dose or no. This is a different strategy, indeed, yes, you have to look at this parameter for every allergens. So which is mg of protein and if its below that you don't need to put the PAL (precautionary allergen label). This is correct. Obviously this raises the question, there are no regulated thresholds for most of the allergens, it is a problem, but what is this. It's probably that in the population there are people that are more or less allergic, so the recent consensus no, what should we do for the future. I countries like Australia or New Zealand for instance, they are already push for instance for gluten that there is no detectable allergen. They don't put a limit, they just don't want to see the allergen, so it's there, or it's not there. It's less confusing and its safer for the consumer.

What does legislation say about labels for business to business products?

Is it also obligatory to mention the allergens? (Is there a difference in supplying products to the consumers, to the end market or is there business to business different regulations for that)

It depends a bit, it's a very good question in a sense there are several steps to detect an allergen. The first step is really to extract the allergen from the food matrix. Then you need, the antibody that detects it, that is very specific and finally you also need technical skills to be able to detect the allergen. I would say, gluten is definitely not easy to detect, although by now there are very good techniques on the market. Gluten is a protein that is very sticky, like a chewing gum and the first step is use a good extraction buffer, because gluten is only dissolvable in ethanol, if you don't do that it will be difficult. And then use an antibody, as well as we depend on the food matrix. It is not the same detecting gluten in rice flour than in something that is extremely processed like cornflakes. So gluten is not easy, as well as I mentioned celery, there is no antibody for celery, why is that? When we try to develop an antibody for celery you have a lot of cross reaction, when you have raw celery and boiled celery, what we want is for instance detecting celery in soup, this is a big challenge.

Extension of the answer after the webinar: Legislation is not fully clear on this topic, although EU regulation No. 1169/2011 states in section 24:

“When used in the production of foods and still present therein, certain ingredients or other substances or products (such as processing aids) can cause allergies or intolerances in some people, and some of those allergies or intolerances constitute a danger to the health of those concerned. It is important that information on the presence of food additives, processing aids and other substances or products with a scientifically proven allergenic or intolerance effect should be given to enable consumers, particularly those suffering from a food allergy or intolerance, to make informed choices which are safe for them” (EN, 2021).

Based on this regulation it's recommended to follow the consumer concerning allergen labelling also in a business to business setting



Do food producers misuse the term 'may contain' on their labels? Is it obligated to test the products on all allergens or is it to avoid risk?

So really as I said there is no legislation and when we are testing the food from the supermarkets, we develop a new product and we want to see how well it detects in real products. So we go to the supermarket and you buy all the products that say may contain a sesame, you can't find it. Many food producers, say yes, because they know that they had sesame in the company. They prefer to say my contain, but again there is no legislation. And some will say may contain, because there could be traces and some say may contain and but they have not detected those traces, it's just to be on the safe side. And then consumers some don't read it, yeah it is confusing and it's not regulated. There is that program that is based on clinical study. Food industry is now starting to follow these instruction to make it easier for everyone.

We use candlenuts *Aleurites moluccanus* in 1 product. It is not listed in tree nut category of 1169/2011, but it may be somewhat related to the Macadamia nut. Out of precaution we have labelled this product to contain nuts. I could not find results when using www.allergen.org.
Test=best solution?

As you already mention, we agree that it is in these cases good to mention and stay on the save side. Although it is not mentioned on the list of 14 allergens (obligatory), it is a relative of Macademia nut.

Concerning testing it is unlikely that there is a specific test available for his nut. For preventing cross contamination a protein test is a suitable solution.

Hopefully this provides a bit of clarity for you.

In addition to my previous question (about labelling for business to business products).

We of course do inform the customer but that is done via product specification sheet. My question is about the label and whether the allergen info is obligatory on the label.

Concerning labelling, it's only obligatory to mention the 14 obligatory allergens on the label. Check the presentation for an overview of these 14.



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