

Advice 07-2020 of the Scientific Committee established at the FASFC on the evaluation of the analysis programme for phycotoxins in food.

Background & Terms of reference

The Scientific Committee is asked to provide an opinion on the analytical programme for mycotoxins, phycotoxins, biogenic amines and other toxins or undesirable plants in food, feed, fertilisers and propagating material.

In this specific context, the Scientific Committee is asked :

- 1° to evaluate the possible trends of the previous control results;
- 2° to give its opinion on :
 - a. the relevance of the choices and the implementation of the statistical approaches;
 - b. the relevance of the choices of the "matrix/hazard" combinations and the chosen sampling sites (distribution of samples and control efforts);
- 3° to clarify the modalities in order to set up the following programmes :
 - a. a multi-annual sampling vigilance programme when its objective is the detection of mycotoxins, phycotoxins, biogenic amines and other toxins or undesirable plants in foodstuffs, feedingstuffs, fertilisers and propagating materials ;
 - b. a multi-annual sampling monitoring programme when the programme aims at estimating the prevalence of mycotoxins, phycotoxins, biogenic amines and other toxins or undesirable plants in the food, feed, fertilisers and propagating material.

This opinion is limited to the assessment of the analysis programme concerning phycotoxins (marine biotoxins).

Method

The programming of the analyses was assessed on the basis of expert opinion in combination with information from legislation, the scientific literature and an evaluation of trends of the FASFC analysis results.

Results and Conclusions

The trend observation and trend analysis performed on the results of the phycotoxin analysis programme in bivalve molluscs during the period of observation (2008 - 2019) did not provide indications to modify the analysis programme. No relevant trends were identified.

The programming with regard to phycotoxins consists of a combination of the vigilance programme and the legal programme. This approach focuses on the detection of a contamination in a population at risk of food (especially bivalve molluscs). This programme is endorsed by the Scientific Committee. The Scientific Committee also endorses the methods used for programming analyses in accordance with European legislation on marine biotoxins. It focuses in particular on the matrices most at risk to the Belgian population, namely oysters, mussels and scallops.

The Scientific Committee also endorses the choice of the statistical approach used for the sample size calculation, but makes a number of observations relating to the determination of the confidence level and the prevalence level to be monitored within the vigilance programme.

Recommendations

The Scientific Committee recommends that attention should also be paid to the sampling of crab and, in the case of signals of contamination from neighbouring countries, random sampling of live echinoderms, tunicates and marine gastropods.

The Scientific Committee recommends vigilance with regard to the 'emerging' phycotoxins (ciguatoxin and tetrodotoxin) and for products originating from tropical and subtropical fishing grounds that pose a risk of contamination with these toxins.

Since seafood is consumed mainly in restaurants, the Scientific Committee recommends that the distribution and catering sector should also be included in the sampling sites, possibly in the context of special control actions and during periods of risk of phycotoxin presence.

The Scientific Committee recommends that scientific studies on the identification and occurrence of phycotoxins in algae-based food supplements should be carried out.

The full text is available on this website in dutch and in french.