

More knowledge needed to ensure safe use of botanicals in food

December 23 2014, by Miriam Meister



The challenges related to assessing the safety of botanicals in foods and food supplements and regulating their use were highlighted at a conference held in Denmark in November 2014. The conference identified a need for more data to be generated on the risks botanicals pose to human health. Participants also called for harmonisation of approaches and systems between countries so that scientific information can be easily shared supporting the safe use of botanicals and paving the way for greater cross-agency cooperation. The conference was organised by the National Food Institute, Technical University of Denmark along with the French institute for risk assessment, ANSES, and the German

Federal Institute for Risk Assessment, BfR.

Botanicals and preparations derived from plants, algae, fungi or lichens have become widely available to consumers worldwide in the form of [food supplements](#). A trend has also emerged where people collect botanicals in the wild for use in ordinary food. However, some botanicals or botanical preparations may pose a risk to [human health](#) and data on the safety and quality of many of their bioactive substances is limited.

This poses challenges both when carrying out risk assessments on the bioactive compounds and when managing these risks through the setting of rules to ensure agents are used in concentrations that are within safe limits. Safety assessment of botanicals and preparations thereof used in food supplements is not subject to EU regulation but to management by national food authorities in member states.

Presentation of available data and tools

Speakers at the [conference](#) presented currently available scientific knowledge on botanicals and outlined existing tools and systems that can assist in conducting risk assessments of bioactive agents. These included positive lists of botanicals that can be used in food supplements with specific conditions of use, and tools for structured safety assessments of products.

They also highlighted the challenges in communicating risks in a relevant way to different consumer groups and talked about the difficulties in setting and enforcing rules governing the composition and sale of food supplements containing botanicals.

Participants have applauded the initiative to hold the conference. An evaluation of the event has shown that most participants rated the

conference programme highly, saying that they found it beneficial to their work.

More knowledge and better harmonization needed

Although the conference showed that progress is being made around the world to collate data on the relevant bioactive agents, it was made clear that data gaps relating to their safety and quality still exist. Concerns were also raised regarding the lack of scientific data on products containing several botanicals with respect to how these ingredients might react in combination.

It was suggested that part of the answer to filling these gaps could be creating positive lists of botanicals – as some countries have done – and harmonising the way the safety of these products is assessed. Such an approach would help accelerate mutual recognition of data as well as products based on scientific information.

There were calls for more comprehensive information to be made available about the botanical constituents in food supplements – e.g. scientific name, plant part used, how the ingredients are derived and recommended daily doses of individual ingredients. This would make the information immediately useful in the risk assessments of products.

Need for better knowledge among consumers

Examples of poisonings due to people mistakenly picking and consuming poisonous botanicals in the wild made it clear that – contrary to popular belief – natural does not necessarily mean safe. The examples highlighted the need for better public awareness of toxins in plants and the need for good botanical knowledge of the plants that are safe to eat and any preparation needed to avoid poisonings.

Medical professionals also need better awareness of negative health consequences related to consuming certain botanicals – both acute effects and adverse effects due to prolonged use – to ensure such effects can be reported and factored into risk assessments.

When communicating risks speakers at the conference showed the necessity of properly identifying the different target groups before deciding on the best messaging and channels both relating to risks associated with commercial products and plants collected in the wild.

Opportunities for cross-agency research

As a result of the conference the National Food Institute in Denmark, ANSES and the BfR have agreed to pursue research work in order to generate more of the required data that can support the safe use of botanicals in food and food supplements.

This work will take place under the framework of the institutes' existing cooperation agreement, which enables the institutes to exchange knowledge and experiences in the area of [risk assessment](#) and provides staff with a network of scientific colleagues in other countries, who work within their field of expertise.

More information: For more information, see [www.conferencemanager.dk/Botan ... alsinfood/about.html](http://www.conferencemanager.dk/Botan...alsinfood/about.html)

Provided by Technical University of Denmark

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