

**Advice 20-2018 of the Scientific Committee of the FASFC regarding action limits of the sum of T-2 and HT-2 toxins in certain foodstuffs and animal feed, and revision of the hazard rating**

*Terms of reference*

The Scientific Committee has been requested to propose action limits for the sum of T-2 and HT-2 toxins in cereals and cereal-based products intended for human and animal consumption in absence of a maximum limit laid down by legislation or European Union regulation, in order to provide the FASFC with a scientific basis in view of the protection of the safety of the food chain.

Following new toxicity data for T-2 and HT-2 toxins, the EFSA lowered the group TDI value of the sum of both toxins from 0.1 µg/kg bw to 0.02 µg/kg bw. In this context, the Scientific Committee is also requested to review the hazard rating of the sum of T-2 and HT-2 toxins which is currently 2 (on a rating scale from 1 to 4).

*Method*

The scientific opinion is based on the available information in scientific literature and on expert opinion.

In order to establish action limits for chemical contaminants, the method described in the document « *Inventaire des actions et des limites d'action et proposition d'harmonisation dans le cadre des contrôles officiels – Partie 1 Limites d'action pour les contaminants chimiques* » (AFSCA, 2017) is applied.

In **unprocessed cereals** intended for food or feed, the Scientific Committee proposes, in absence of a substantiated processing factor, to use the values of the indicative levels of Recommendation 2013/165/EU as action limit for the sum of T-2 and HT-2 toxins.

In **animal feed**, due to the lack of a toxicological reference value for T-2 and HT-2 toxins per animal species, the lack of standardisation of the feed regime ingredients per animal species, per production type (meat, milk, eggs) or per age class, and the absence of a validated method for determining exposure and for setting action limits or standards, the Scientific Committee proposes, to use as action limits for the sum of T-2 and HT-2 toxins, the indicative levels mentioned in Recommendation 2013/165/EU and the maximum levels for compound feed for cats mentioned in Recommendation 2006/576/EC.

For the sum of T-2 and HT-2 toxins **in foodstuffs**, the action limits are calculated based on chronic and acute consumption, by dividing the toxicological reference value by the 97.5<sup>th</sup> percentile of the consumption data of the different cereal-based matrixes. Consumption data were used from the Belgian Food Consumption Surveys 2002-2004 for toddlers, elderly, very elderly and from the aggregated data of the 2014-2015 classification FoodEx2 (EFSA database 2017, Brocatus 2016). Then the calculated value was rounded according to the method mentioned in the guidance OECD document (OECD, 2011). Indicative levels of the Recommendation 2013/165/EU are also used to establish action limits when consumption data are insufficient.

Regarding the revision of the hazard rating of the sum of T-2 and HT-2 toxins, the Scientific Committee relied on expert opinion and on the new TDI value for T-2 and HT-2 toxins compared to other mycotoxins programmed for official analyses.

### Results

The Scientific Committee proposes the following action limits for unprocessed cereals, food and feed:

**Table 1. Proposed action limits for the sum of T-2 and HT-2 toxins in unprocessed cereals, cereal products for animal feed, cereals and cereal products for foodstuffs**

Matrixes	Action limit (µg/kg)		Determining basis for action limit
<b>Unprocessed cereals<sup>1</sup></b>			
Barley (including malting barley) and maize	200		Recom. 2013/165/EU
Oats (with husk)	1000		Recom. 2013/165/EU
Wheat, rye and other cereals	100		Recom. 2013/165/EU
<b>Feed</b>			
<b>Cereal products</b>			
Oat milling products (husks)	2000		Recom. 2013/165/EU
Other cereal products	500		Recom. 2013/165/EU
Compound feed, with the exception of feed for cats	250		Recom. 2013/165/EU
Feed for cats	50		Recom. 2006/576/EC
<b>Foodstuffs</b>			
<b>Cereals</b>			
Oats	200		Recom. 2013/165/EU
Maize	100		Recom. 2013/165/EU
Other cereals (wheat, rye, barley, etc.)	50		Recom. 2013/165/EU
<b>Cereal products</b>			
Oat bran and flaked oats	200		Recom. 2013/165/EU
Cereal bran (except oat bran), oat milling products other than oat, bran and flaked oats, and maize milling products (semolina and corn starch, etc.)	100		Recom. 2013/165/EU
Other cereal milling products	50		Recom. 2013/165/EU
	<b>Action limit chronic exposure (µg/kg)</b>	<b>Action limit acute exposure (µg/kg)</b>	
Breakfast cereals including formed cereal flakes	10	60	2014 consumption data
Bread and similar products	10	40	2014 consumption data
Fine bakery products (biscuits, waffles, pancakes, etc.)	10	50	2014 consumption data
Pasta and similar products	10	40	2014 consumption data
Cereal-based foods for infants and young children - Biscuit for children, cereals for panades	10	80	2014 consumption data
Starchy or extruded or fried cereals (cereal bar, chips, etc.)	30	100	2014 consumption data
Beer	2	30	2004, 2014 consumption data

<sup>1</sup> : unprocessed cereals for animal feed and / or food.

With regard to the revision of the hazard rating of T-2 and HT-2 toxins and their sum, the Scientific Committee proposes to increase their rating from 2 to 3, given the decrease of the TDI as determined by EFSA in 2017. This is also motivated by the comparison of the hazard rating assigned to trichothecenes, such as DON (hazard rating of 2) which are less toxic than toxins T-2 and HT-2, and aflatoxins (hazard rating of 4), which are more toxic.

### Conclusions

The Scientific Committee proposes action limits for the sum of T-2 and HT-2 toxins in unprocessed cereals intended for human or animal consumption, in animal feed and in food products consisting of cereals or cereal based.

The Scientific Committee is not able to calculate action limits for the sum of T-2 and HT-2 toxins in unprocessed cereals. It therefore proposes to use the indicative levels mentioned in Recommendation 2013/165/EU.

Similarly, for cereal-based feed, the Scientific Committee proposes to use the indicative levels mentioned in Recommendation 2013/165 /EU and in Recommendation 2006/576 / EC as action limits.

With regard to the revision of the hazard rating of the sum of T-2 and HT-2 toxins, the Scientific Committee proposes to use a rating of 3.

---

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