

Advice 12-2015 of the Scientific Committee of the FASFC on the presence of plant protection products and veterinary drugs residues in beeswax: scenario analysis chronic exposure of consumers and proposition of action limits.

The Scientific Committee has conducted a scenario analysis in regard to chronic exposure of consumers to residues of certain plant protection products and veterinary drugs through the consumption of contaminated honey and beeswax.

Based on scientific literature and analysis results available from the Institute for Agricultural and Fisheries Research (ILVO), a list of plant protection products and veterinary drugs of which residues have already been detected in beeswax in Belgium and in France was established.

From that list, the following 18 different plant protection products or veterinary drugs were selected based on their human toxicity, their water or fat solubility and the fact that, as regards to veterinary drugs, their use in beekeeping is authorized or that their use can theoretically be authorized via the "cascade system":

- Amitraz
- Carbofuran
- Chloramphenicol
- Chlorfenvinphos
- Coumaphos
- Cyfluthrin
- Cypermethrin
- DDT (sum of isomers)
- Deltamethrin
- Dimethoate
- Flumethrin
- Mevinphos
- Parathion
- Permethrin (sum of isomers)
- Pirimicarb
- Sulfonamides
- Tau-fluvalinate
- Thymol

The estimation of the potential chronic exposure of consumers to these 18 residues through the consumption of honey and beeswax was based on a worst case scenario. This consisted of verifying if, for each residue the acceptable daily intake value was not exceeded based on a concentration level for each residue equal to its maximum limit or to its limit of action and the contribution of honey and beeswax to the theoretical maximum daily intake through other foodstuffs.

For each residue, the determination of the maximum residue limit (MRL) or the action limit to be respected for honey and beeswax was done as follows:

- If there is an MRL for honey, this value was used as MRL for honey and as action limit for beeswax;
- If no MRL exists for honey (neither based on a veterinary use nor based on a use of the substance as a plant protection product) but that an MRL exists for other foodstuffs of animal origin, the lowest MRL value was selected as action limit for honey and beeswax.

In the absence of MRL and for prohibited substances listed in table 2 of the Regulation (EU) N°37/2010, the "zero tolerance" is recommended.

In conclusion, the Scientific Committee is of the opinion that the consumption of honey and beeswax contaminated with these 18 residues of plant protection products and veterinary drugs does not compromise the consumers' health, provided MRL's or action limits set out in appendix 3 are met.

The Scientific Committee is also of the opinion that the 18 residues discussed above are the most relevant one's and that the methodology used in this advice could be applied to any residues detected in beeswax and not yet listed in annex 1 of this advice.

The full text is available on this website in dutch and in french, respectively under the section "Wetenschappelijk Comité/Adviezen" and "Comité scientifique/Avis".