



2026/1241

15.6.2026

COMMISSION RECOMMENDATION (EU) 2026/1241

of 11 June 2026

on monitoring the presence of quinolizidine alkaloids in lupins and lupin-derived food

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 292 thereof,

Whereas:

- (1) The European Food Safety Authority ('the Authority') Panel on Contaminants in the Food Chain ('the CONTAM Panel') adopted an opinion in 2019 on the risks for animal and human health of the presence of quinolizidine alkaloids in feed and food, in particular in lupins and lupin-derived products ⁽¹⁾.
- (2) The CONTAM Panel identified a lowest single oral effective dose of 0.16 mg sparteine/kg body weight as a reference point to characterise the risk following acute exposure, and considered that no reference point could be identified to characterise the risk of chronic exposure. Due to the limited data on occurrence of quinolizidine alkaloids in lupins and lupin derived foods and on consumption of these foods, dietary exposure was calculated only for some specific scenarios and no full human health risk characterisation was possible. The Authority considered however that the data may indicate a risk to some consumers. Therefore, the CONTAM Panel recommended that more occurrence data should be gathered on the presence of quinolizidine alkaloids in lupins and lupin-derived products.
- (3) In addition, more information should be gathered on the factors that lead to relatively high levels of quinolizidine alkaloids in lupins and lupin-derived food, in order to identify the measures to be taken to avoid or reduce the presence of quinolizidine alkaloids in these foodstuffs.
- (4) It is therefore appropriate to recommend the monitoring of quinolizidine alkaloids in lupins and lupin-derived food, the identification of the factors resulting in their high levels, and the collection of more information on the effects of processing on the level of quinolizidine alkaloids.

HAS ADOPTED THIS RECOMMENDATION:

- (1) Member States, in collaboration with food business operators, should monitor quinolizidine alkaloids in lupins and lupin-derived food, such as dry lupin seeds, lupin flour, canned/jarred lupins, bread and fine bakery wares containing lupins, including pre-mixes for these bakery products, lupin-based egg analogues, lupin-based coffee imitates, lupin-based milk and meat imitates, and lupin protein powder for shakes and smoothies. At least the quinolizidine alkaloids albine, anagyrin, angustifoline, lupanine, isolupanine, multiflorine, 13 α -hydroxylupanine, lupinine, and sparteine, should be analysed, as these are the quinolizidine alkaloids present in the seeds of the lupin species relevant for feed and food. Given the transfer of quinolizidine alkaloids from feed to food of animal origin, in particular milk, it is appropriate also to monitor the presence of quinolizidine alkaloids in food of animal origin originating from animals that have been fed with feed containing lupin-derived feed materials.

⁽¹⁾ EFSA CONTAM Panel (EFSA Panel on Contaminants in the Food Chain), 2019. Scientific opinion on the risks for animal and human health related to the presence of quinolizidine alkaloids in feed and food, in particular in lupins and lupin-derived products. <https://doi.org/10.2903/j.efsa.2019.5860>.

- (2) It is recommended that the sampling for monitoring purposes is done in accordance with Commission Regulation (EC) No 333/2007 ^(?). The recommended method of analysis is Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS). Where other methods of analysis are applied, evidence should be available showing that they generate reliable results for individual quinolizidine alkaloids. The limit of quantification (LOQ) for the determination of each quinolizidine alkaloid should be around 1 mg/kg for lupin seeds and lupin derived foods and 0,2 mg/kg for foods containing lupins and/or lupin-derived foods and 0,05 mg/kg for milk and other food of animal origin.
- (3) Member States, in collaboration with food business operators, should carry out investigations to identify the factors leading to high levels of quinolizidine alkaloids in lupins and lupin-derived food and to gather information on processing effects on the level of quinolizidine alkaloids.
- (4) Member States and food business operators should provide to the Authority, by 30 June of each year, the data for the previous year for compilation into one database in line with the requirements of the Authority' Guidance on Standard Sample Description (SSD) for Food and Feed and Authority's additional specific reporting requirements ^(?). Furthermore, Member States and food business operators should report, for lupin seeds and lupin derived foods, the lupin species, if known, and for sweet or bitter lupins, the processes lupin seeds have undergone (such as soaking, boiling), and any processes the lupin derived foods have undergone to reduce the quinolizidine alkaloid content.

Done at Brussels, 11 June 2026.

For the Commission
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Member of the Commission

^(?) Commission Regulation (EC) No 333/2007 of 28 March 2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs, OJ L 88, 29.3.2007, p. 29, ELI: <http://data.europa.eu/eli/reg/2007/333/oj>.

^(?) <https://www.efsa.europa.eu/en/call/annual-call-continuous-collection-chemical-contaminants-occurrence-data-food-and-feed-0>.