

Residues of plant production products in strawberries – no health effects expected

Communication No. 022/2023 dated 7 June 2023

According to tests by a non-governmental organisation, residues of plant protection products were detected in commercially available strawberries. Within this context, the German Federal Institute for Risk Assessment (BfR) points out that the identification of residues in foods does not necessarily pose a health risk for consumers. All active substances identified in the test have been toxicologically evaluated and found to be safe within the scope of approved uses. Accordingly, they are approved for use in plant protection products in the European Union and authorised for use in strawberries in Germany.

None of the reported samples exceeded or even came close to the maximum residue limits (MRL) laid down by law. According to the current state of knowledge, these strawberries are not expected to adversely affect health.

For three of the identified active substances (difenoconazole, penconazole and trifloxystrobin) an acute reference dose (ARfD) is derived. This value defines the amount of a substance a consumer can ingest with food over the course of a day without incurring any health risk. For the three active substances mentioned, the BfR assessed whether consumption of the strawberries is a health risk for consumers. The result: The levels identified are well below the current acute reference doses, which were exhausted up to a maximum of 3% by consumption of these strawberries. Even the simultaneous presence of several active substances in the strawberries is not a health concern in view of the minimal exhaustion of the respective acute reference doses.

Even if authorised plant protection products are used properly and for their intended purpose, residues may remain in crops and therefore in the food and animal feed. Residues must be that low that they do not endanger the health of consumers –residues of plant protection products are permitted in foods up to the maximum residue level (MRL) laid down by law. From the point of view of risk assessment, the current authorisation criteria exclude health risks for consumers with sufficient certainty.

According to the current EU regulations, the health risks that may arise from the use of a plant protection product are assessed by an EU Member State on behalf of the Member States of a zone. The authorisation of plant protection products is carried out nationally. In Germany, it is issued by the German Federal Office for Consumer Protection and Food Safety (BVL). The Julius Kühn-Institute - Federal Research Institute for Cultivated Plants (JKI), the German Federal Environment Agency (UBA) and the German Federal Institute for Risk Assessment (BfR) are involved in the process and carry out partial assessments within their remit. The BfR assesses the health risks for consumers, operators, workers, bystanders and residents.

Plant protection products are used to protect plants or parts of plants, including fresh fruit, vegetables and seeds, from pests such as fungi, weeds or harmful organisms. They are also designed to ensure crop yield, protect crops during storage and transport, and ensure good food quality. Although fewer plant protection products are used in organic farming than in conventional agriculture, organic farmers do not dispense with plant protection products altogether.

www.bfr.bund.de

Further information on the BfR website about plant protection products:

Questions and answers on residues of plant protection products in food:
<https://www.bfr.bund.de/cm/349/questions-and-answers-on-residues-of-plant-protection-products-in-food.pdf>

Plant protection product residues in food:
https://www.bfr.bund.de/en/plant_protection_product_residues_in_food-197984.html

Interview with Tewes Tralau on the risks of plant protection products:
https://www.bfr.bund.de/cm/429/02_interview_with_dr_tewes_tralau.pdf



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About the BfR

The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the business unit of the Federal Ministry of Food and Agriculture (BMEL). The BfR advises the Federal Government and the German federal states (“Laender”) on questions of food, chemicals, and product safety. The BfR conducts independent research on topics that are closely linked to its assessment tasks.

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