

No acute threat to health from pesticide residues in grapes

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The environmental protection organisation Greenpeace presented analytical results on the levels of pesticide residues in grapes. A total of 124 samples of grapes were examined from supermarkets. According to the calculations by Greenpeace the acute reference dose (ARfD) was exceeded in one sample for the active substance, procymidone. This may be an indication that there could be a health threat for consumers. The acute reference dose indicates the amount of a substance which can be ingested in one meal or in the course of one day without there being a risk to health. In all other samples this health limit value was not exceeded. The Federal Ministry of Food, Agriculture and Consumer Protection asked the Federal Institute for Risk Assessment (BfR) to undertake a health assessment of the data submitted. In its toxicological assessment BfR came to a different conclusion from that of Greenpeace. In one sample of grapes Greenpeace detected a residue of the active substance procymidone in a concentration of 1.2 mg/kg. In order to calculate the health risk the organisation used the acute reference dose of the EU of 0.035mg/kg body weight (mg/kg BW) and the German consumption data for infants. Based on this, Greenpeace established a manifold exceeding of the acute reference dose and derived from this an acute health threat for children and adults. In the opinion of BfR the Greenpeace calculation is not, however, toxicologically substantiated. This is because the EU ARfD is based on a developmental toxicological effect which is not to be expected in conjunction with one-off intake. Furthermore, when it comes to a developmental toxicological effect the consumption data for women of child-bearing age should have been used instead of the data for children.

In order to undertake a toxicological assessment of the analytical results of Greenpeace, BfR used the acute reference dose of 0.1 mg/kg body weight derived by the World Health Organisation. This is based on an effect that may already possibly be triggered through a single dose. Furthermore, BfR looked at all the consumption data available in the EU for its health assessment. The BfR assessment results clearly show that there is no health threat either for children or other groups in the population from the consumption of grapes with the procymidone residues of 1.2 mg/kg described by Greenpeace. At the same time, the Federal Institute does believe there is a need to keep maximum levels for pesticide residues as low as possible. The current value for procymidone in grapes is currently being examined by the EU.

The full version of this BfR Opinion is available in German on http://www.bfr.bund.de/cm/218/keine_akute_gesundheitsgefaehrdung_durch_rueckstaende_von_pestiziden_in_trauben.pdf