

Activities of the state in guaranteeing food safety

Does the state know the risks that arise from pesticide residues in food and inform people about them?

Summary of audit results

What did we audit?

During the audit, the National Audit Office analysed whether the risks related to food have been identified, the laboratories that analyse food measure up, food manufacturers are supervised and consumers are informed about the hazards related to food. The audit focused on the hazards in plant-based food caused by pesticide residues. The audit complements the audit “Activities of the state in guaranteeing safety of plant-based food” completed by the National Audit Office in 2009 because this report describes problems raised in the previous report that have still not been solved.

Why is this important to taxpayers?

Food that is harmful to health or unfit for consumption should not be sold to consumers. Consumers can make the best choices for their health if they know the possible hazards related to the pollutants contained in food and make their food choices according to the principle of moderation and diversity. Consumers must be able to trust food manufacturers, handlers, sellers and the authorities that the food sold to them is safe.

In order to justify this trust, the Ministry of Rural Affairs, the Veterinary and Food Board as well as the Agricultural Board, which controls the use of pesticides, must identify the risks related to food, inform consumers about them and exercise supervision. They must also guarantee that those who violate food safety requirements are punished and hazardous food is removed from the market.

What did we find and conclude on the basis of the audit?

In the opinion of the National Audit Office, the Ministry of Rural Affairs and the Veterinary and Food Board should not claim that the food sold in Estonia is safe, because the quantity of food studies and laboratory analyses is not sufficient and there are omissions in supervision. These authorities do not inform people adequately about the risks related to the pesticide residues contained in food. In the opinion of the National Audit Office, consumers are misled to believe that food is becoming less contaminated.

Observations of the National Audit Office about the information given to consumers, which is misleading for the following reasons:

- The message of the Ministry of Rural Affairs and the Veterinary and Food Board that the food sold in Estonia is safe is based on a small number of laboratory analyses, which are not sufficient to make generalising conclusions about all of the food sold. Analyses of Estonian organic food and other food grown here form a disproportionately large share in comparison with consumption, which makes the impression that food is cleaner than it actually is, as local food usually contains fewer pollutants than imported food.
- The information presented to the consumers creates the incorrect impression that the active substances of all pesticides are analysed in all samples taken. Actually, the content of a specific active substance is only analysed in some samples, but the general public are told that the substance was not present in any of the analysed food.

- The results of the laboratory analyses are processed, which distorts the information given to consumers and makes it seem that the content of pesticide residues in food is smaller than it actually is. Fifty percent is subtracted from the lab results on the pretence of the so-called expanded measurement uncertainty, which is why food seems less contaminated than it actually is. Results that have been processed in this manner and their presentation to the general public do not show the extent to which limits were actually exceeded.
- Consumers are not informed about all hazards, such as the combined effect of plant protection product residues in food and their harmful impact on the hormonal system. Such hazards have been approached in many research papers and the European Food Safety Authority is currently analysing them as well. The Ministry of Rural Affairs has not commissioned any research for broader assessment of the food risks related to pesticide residues and informing consumers about them.

Observations of the National Audit Office about the activities of the Ministry of Rural Affairs, the Veterinary and Food Board and the Agricultural Board:

- The Ministry of Rural Affairs has no information that would tie the eating habits of Estonians to the pesticide residues found in food and the resulting health problems. The reason for this is that no such research has been commissioned. The studies of the European Food Safety Authority have so far been relied on, which may not consider the specific eating habits of people in Estonia. In comparison with the audit carried out 10 years ago, it's good to see that an overview of the eating habits of Estonians has been prepared. However, commissioning studies calls for cooperation between specialists of food safety, agriculture and health, who should be able to assess the risks and phrase the subjects of research. The National Audit Office pointed out the lack of risk assessments and studies as early as 10 years ago.
- The Ministry of Rural Affairs and the Veterinary and Food Board currently focus only on the identification of the permitted maximum quantities of pesticide residues in food. However, the risk to health is not only related to exceeding the permitted residue quantities in one or several foodstuffs but also depends on the quantity of the residues in foodstuffs eaten. Special attention should be given to more sensitive groups, such as pregnant women, small children and vegans. At present, neither of the authorities assesses the hazard that arises from the accumulation of too many residues for a person's body weight. The pesticide residues that are harmful to health may therefore accumulate in people's bodies and cause health problems.
- The Veterinary and Food Board and the Agricultural Board plan supervision without considering which crops are treated the most with pesticides and fertilisers, as they haven't considered the collection of such information important. Other aspects are taken into account during supervision, such as the size of the field. However, from the viewpoint of food safety it's more important to check the producers whose products are likely to contain more pesticide residues. As the number of circumstances that are and should be checked keeps increasing, the authorities get around to checking many agricultural producers after intervals of more than five years.
- At present, Estonian laboratories are able to determine the majority of pesticides residues permitted on our market and most commonly found in food. However, things may change, as the equipment is getting old and there isn't enough money to replace it. As the number of orders is small, they are divided between several laboratories and the equipment is underutilised, so the laboratories themselves are unable to earn the money needed to update their equipment.
- The Veterinary and Food Board is unable to guarantee that perishable foodstuffs (e.g. fruits and vegetables) which contain hazardous quantities of pesticide residues do not reach consumers. The reason is that the Veterinary and Food Board has been receiving the lab results within a month so far. When hazardous food has been detected by another country that has announced this via the rapid alert system of the EU, identifying the distributors of such food in Estonia takes time. Thus,

hazardous food is sold to consumers before the Veterinary and Food Board can stop the sale of such food.

Important recommendations of the National Audit Office to the Minister of Rural Affairs and the Director General of the Food and Veterinary Board:

- Inform the general public more about the pesticides residues found in food and potential health risks, incl. present the data of analyses in a manner that makes them unambiguously understandable. Publish the data of analyses in a manner that makes it possible for consumers to make informed choices when consuming food. Proceed from the actual lab results when presenting the results.
- Identify the pesticide residues that pose the biggest threat to people, and ensure that the food that's consumed the most and grown by using the biggest quantities of pesticides is analysed.
- Collect information about the plants on which pesticides and fertilisers are used as well as about their quantities. This would help find possible violations and plan risk-based supervision.

Response of the Minister of Rural Affairs: the ministry agreed that more analyses of pesticide residues contained in food could be ordered and more studies could also be carried out. The Minister found that considerably more money should be allocated to research and development in order to broaden risk assessment and added that an application for getting this money from the budget of 2020 has been submitted. As for obtaining better data about the use of pesticides and fertilisers, i.e. establishing a digital field book, the Minister noted that it would be necessary to assess whether the costs this will cause to agricultural producers and the state corresponds to the benefits to be gained. The Minister said that the possibility to connect the state's information system with the electronic field books of agricultural producers could be analysed within the scope of the knowledge transfer programme, which deals with the big data of agriculture.

Response of the Veterinary and Food Board: the Director General of the Board agreed that informing the general public about the results of analyses of pesticide residues must be improved. The Director General finds that the results of laboratory analyses of food could be presented to consumers in a more understandable manner. In the opinion of the Director General, information about the crops on which Estonian producers use pesticides and the quantities in which they are used would be useful for the Board, as it would help it plan supervision that is more based on risks.