mouvement écologique

OFFICIAL ANALYSES BY THE MINISTERY OF AGRICULTURE SHOW :

50% OF ANALYZED FOOD ARE CONTAMINATED BY PESTICIDES - WHEN IS THE GOVERNMENT GOING TO ACT ?

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Offizielle Analysen des Landwirtschafts-ministeriums zeigen: mehr als 50 % der untersuchten Lebensmittel mit Pestiziden belastet - Wann handelt die Regierung?

The environmental problems associated with the use of pesticides are well known: the disappearance of species, water pollution, and so on. As are the negative effects on health linked to direct consumption or dispersion in the air.

Because of their impact on our health, the absorption of pesticides through food is particularly relevant. This makes it all the more important to ensure that food is not contaminated by residues of toxic substances.

Unfortunately, official analyses give a rather worrying picture, such as the latest annual report[i] from the Luxembourg Veterinary and Food Administration (ALVA) on pesticide residues in food for 2022, which has been available for a few weeks now (the 2023 report is not yet available). These reports are produced each year as part of the Europe-wide analysis campaigns carried out by the EFSA (European Food Safety Agency) [ii].

A total of 608 samples were analysed. The main products analysed were fruit, vegetables, cereals, spices and herbs, tea, oilseeds, nuts, tubers and wine.

19.1% of the samples came from Luxembourg, 47.6% from other EU countries, 28.7% from outside the EU and 4.6% were of unknown origin.

A rather cursory assessment of the analyses by the Luxembourg ALVA - key aspects are missing

The authors of the report limit themselves to the following points when interpreting the data:

- 54.1% of all samples *(Luxembourgish products analysed and imported products analysed) do not contain pesticide residues (however, according to calculations by the Mouvement Ecologique, only 48.2% of samples do not contain residues. ALVA has admitted to us that this is a possible source of error, as ALVA and the laboratories do not always use the official designations of the European pesticides database[iii]*
- 5.8% of the samples exceeded the maximum residue limits and some products were withdrawn from sale.
- Fortunately, no residues were detected in foods intended for infants and young children (foods specifically labelled for infants and young children).

The report also indicates the active substances most frequently detected and distinguishes between foods produced in the EU and those imported from outside the EU.

Unfortunately, the public authorities' interpretation of the data fails to address some extremely important aspects, including the following:

- The difference in exposure between conventionally and organically produced foods;
- The differences in residues between food produced in Luxembourg and imported food;
- Residues of pesticides not authorised in the EU;
- Multiple contamination of food by different pesticides.

According to the Mouvement Ecologique, however, the raw data made available by ALVA, which forms the basis of its report, should be examined more closely.

As we shall see below, the Ecological Movement's analysis paints a much more nuanced picture than that of the administration.

1. Organic food - far less contaminated than conventional food

119 samples (including 17 from Luxembourg) out of a total of 608 came from organic farming.
It is incomprehensible that the ALVA report does not address the sometimes very significant differences in contamination between conventional and organic foods, particularly in the case of fruit and vegetables. However, such treatment would be appropriate, given that the analyses were carried out as part of a European report that clearly highlights these differences, as the following graph (fig. 1) shows, for example:

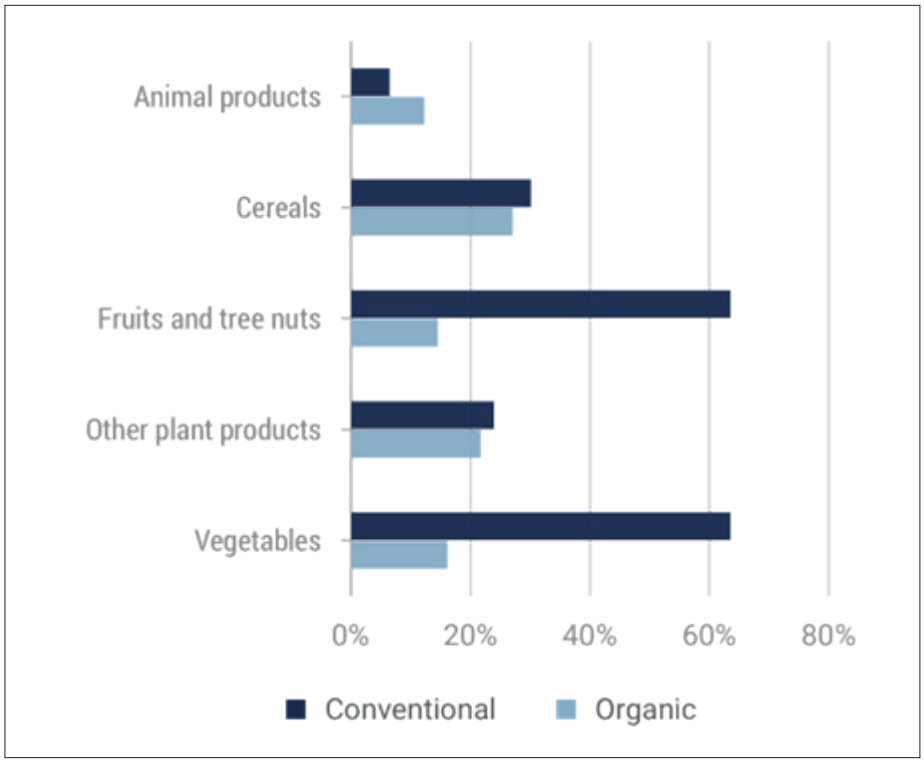

Fig. 1: Difference in contamination between conventional and organic food at EU level (110,892 samples analysed, including 6,717 from organic farming) Source: The 2022 EU report on pesticide residues in food, Results for organic food products

In this respect, the results of analyses of products sold in Luxembourg are comparable to those obtained at EU level, and are unequivocal: **the conventionally farmed products analysed were generally 61.1% contaminated, while organic products were only 12.6% contaminated. In other words, those who buy organic are much safer. Of the 17 foods analysed, only one came from organic production in Luxembourg. As a result : Luxembourg organic products are a better choice.**
But we are looking in vain for this clear statement in the ALVA report!

2. Conventional foods analysed in Luxembourg - better than the European average, but to a lesser extent

54.5% of the products analysed from conventional farming in Luxembourg contain pesticide residues, which is slightly better than the European average for conventional food (61.1%).

3. Frequent detection of pesticides banned in the EU

The active substances that may be used as pesticides are regulated at EU level. These are published in the European pesticides database. Authorisation of individual products, i.e. commercially available 'plant protection products', is the responsibility of the Member States.

It is interesting to know whether the analyses revealed the presence of active substances that are not authorised in the EU. The EU report - unlike the Luxembourg report - deals in some detail with these residues of active substances. This important aspect is not dealt with with the transparency required by the public authorities.

An appropriate treatment of the available data by the Mouvement Ecologique gives the following picture (based on the EU pesticides database, as at December 2023):

Of the 132 different pesticides detected by the analyses, 42 - almost **a third** - were **not authorised for use in EU agriculture at the** time of the analyses (2022) (Figure 2). Most of the residues were detected in food imported from non-EU countries.

Four samples of conventional food products manufactured in Luxembourg also contained such active substances.

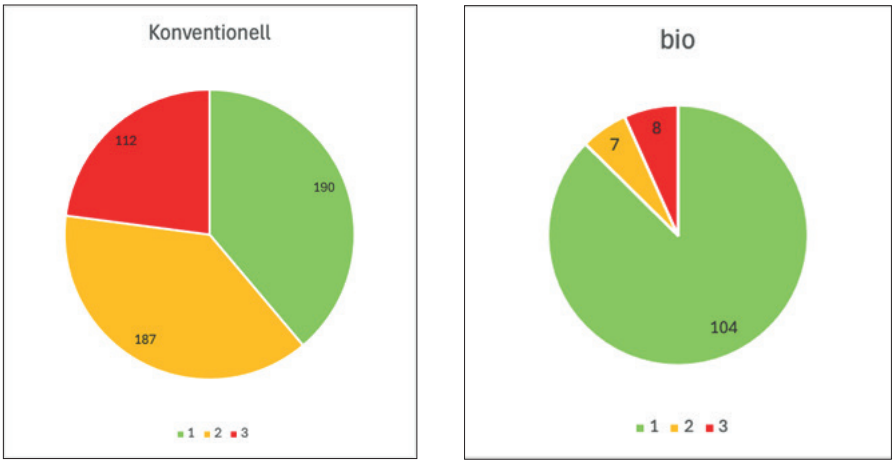

Fig. 2: Exposure of food produced in and outside the EU to pesticides banned in the EU (the figures in the graph indicate the number of respective samples):
Green: no residues;
orange: exposure to active substances authorised in the EU;
red: samples containing unauthorised active substances.

*This also demonstrates the **inconsistency of European pesticide legislation** : while the use of many highly toxic or environmentally harmful pesticides is banned in the EU, industry can continue to produce and export them to non-EU countries. These pesticides are then exported to, among other places, Latin America, where they are used in agricultural production and still end up on our plates as residues in imported food (and of course also harm human health, nature and the environment in the producing countries).*

*This is also one of the main **criticisms** levelled at the **EU-Mercosur** free trade agreement: How can the EU take responsibility for fuelling the extinction of species in South America by exporting toxic substances, only to import in return cheap meat produced under dubious environmental and social conditions, putting EU farmers under pressure?*

4. Particularly serious: around 5% of pesticide levels exceeded the authorised limit.

*Maximum residue limits (*MRLs) for pesticides are set at European level for all products of plant and animal origin intended for human or animal consumption. Specific MRLs apply to each pesticide.

If analyses of certain foods reveal levels in excess of the MRL, the products must be withdrawn from the market or their import into the EU must be banned. According to ALVA, it takes between 2 and 7 days from the moment samples are taken for the batches concerned to be withdrawn from the market. According to ALVA, sanctions are also regularly imposed on importers and distributors.

The Ecological Movement is asking for more concrete information, i.e. whether there is any data on the number of foodstuffs proven to be contaminated above the authorised limit, or whether retailers are systematically penalised, how much the fines are and what happens in the event of multiple offences.

It's important to know: Even if an active substance is not authorised in the EU, food containing residues of it may still be sold. This is provided that the maximum permitted residue level is not exceeded. The ALVA report indicates that a total of 36 samples exceeded the MRL. However, given the analytical uncertainty, 15 of these were considered compliant. The remaining 21 products were withdrawn from the market by ALVA.

Here again, the differences between organic and conventional products are significant, with 33 of the 36 MRL exceedances attributable to conventional products.

5. Apples and strawberries particularly contaminated

At EU level, EFSA focuses on a selection of agricultural products that are of particular importance to the EU. Member States are then required to analyse a minimum number of samples of each of these products for pesticide residues each year. In the 2022 report, these included apples, strawberries, peaches and nectarines, lettuce, cabbage, tomatoes and spinach.

Most of these conventionally produced Luxembourg products are contaminated with pesticide residues. Conventionally produced apples (92%) and strawberries (100%) stand out as particularly negative (fig. 3).

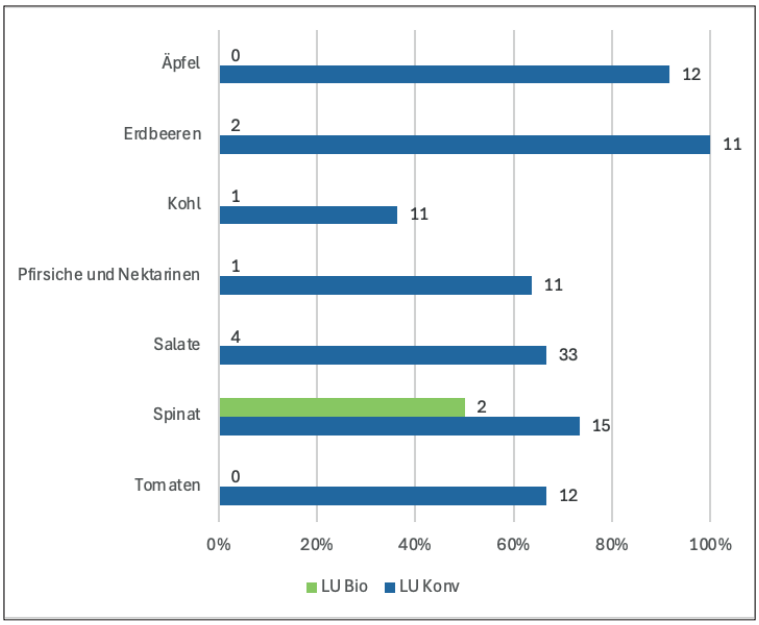

Fig. 3: Difference in contamination between the various fruits and vegetables produced in Luxembourg. (with indication of the number of samples out of a total of 115 samples taken, including 10 of organic produce)

It is interesting to compare foods sold in Luxembourg (and not necessarily produced here) with those analysed in the EU. Figure 4 shows some surprising differences: foods sold in Luxembourg are generally more contaminated than those on offer in the EU on average. Why are goods sold here more contaminated than in the rest of the EU? What are the reasons for these differences?

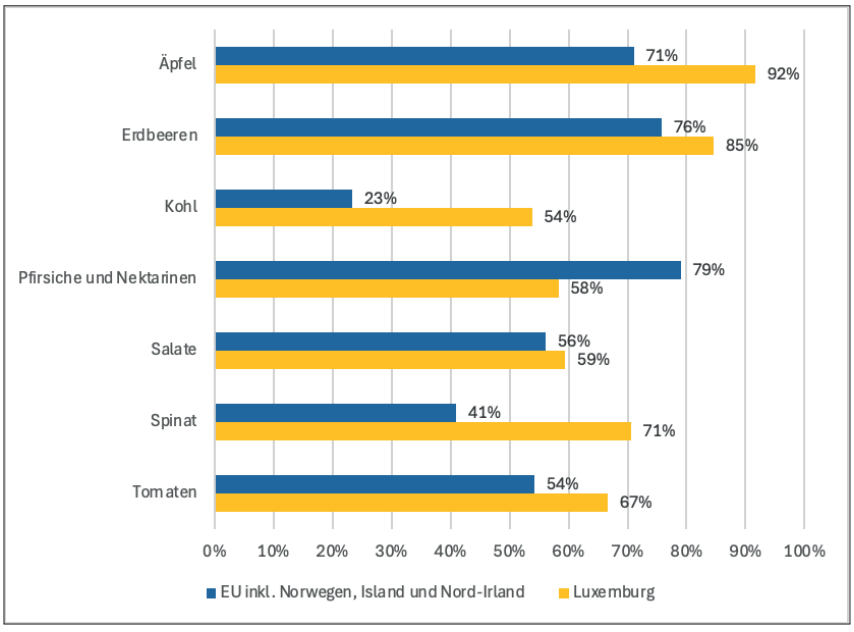

Fig. 4: Comparison of contamination of selected fruit and vegetables sold in Luxembourg with EU-wide analyses

The analyses commissioned by ALVA also showed that ALL samples (regardless of country of origin) of the following conventionally produced foods were ALWAYS contaminated with residues

- Blackberries, bilberries
- Pomegranates
- Mirabelles
- Oranges
- Parsley.

6. A pesticide rarely comes alone - it's multiple exposure that's the problem

The fact that food can contain a large number of different so-called phytosanitary products and still comply with legislation has long been a cause for concern.

Pesticides are de facto toxic substances and have no place in our food.

However, while there are maximum limits that must not be exceeded for the various active substances because of the risk to health, combined exposure to several pesticides - a kind of 'pesticide cocktail' - is not regulated, which is unacceptable

A food may therefore contain several pesticides which, taken individually, are authorised, but whose total dose would exceed the problematic threshold. Unfortunately, the combined effect of these substances is currently neither regulated nor tested, as scientific assessments of the risks associated with chemical substances present in food and animal feed in the EU are so far only considered individually. In reality, however, we are exposed every day to a mixture of a multitude of chemical substances from a wide range of sources, and this combination could be more toxic than the substances taken individually.

Residue analyses carried out in 2022 also bear witness to this multiple exposure: samples of conventionally farmed products produced in Luxembourg and containing residues contained an average of 5.4 different pesticides, more than the European average of 3.9.

Most of the residues of different pesticides were detected in samples of the following foods (Figure 5):

- Strawberries (up to 13 different) (*)
- Tomatoes (up to 12 different) (*)
- Apples (up to 11 different)
- Red wine (up to 11 different)
- Salads (up to 8 different)
- Nectarines (up to 8 different)
- White wine (up to 8 different)
- Spinach (up to 7 different)

(*) It should be noted that strawberries and tomatoes are largely grown in greenhouses.

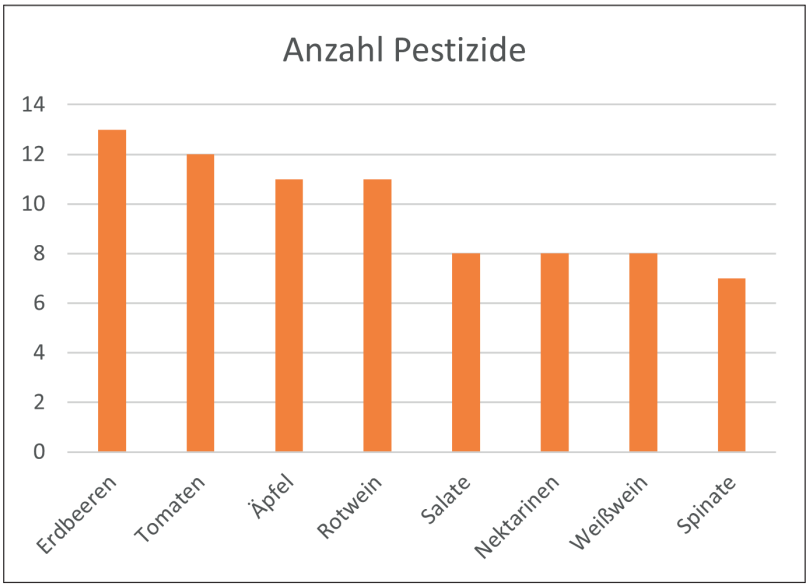

Fig. 5: Residues of various pesticides in foodstuffs

A study published in 2021 by the Luxembourg Institute of Health (LIH) on pesticide residues in children's hair[iv] shows just how important it is to assess the risks associated with cumulative exposure to a large number of sometimes highly toxic substances. Up to 88 different toxic substances were detected in some children!

Residues of 11 specific pesticides were detected in EVERY child! The authors of the study believe that the ingestion of pesticides through food is the main source of exposure to pesticides.

Particularly polluted :

Vegetables and fruit grown in glasshouses - clear criteria are needed to encourage glasshouse growing in Luxembourg (see Bill n°8468 instituting aid for the construction of horticultural glasshouses)!

It is very interesting to note that the EU only authorises several pesticides for use in greenhouses. These are pesticides that are banned outdoors because they are harmful to the environment, except in greenhouses.

The argument: according to European regulation 1107/2009, greenhouses are closed systems that prevent the release of phytosanitary products into the environment. However, studies carried out by PAN Europe on watercourses near greenhouses in Belgium, Germany, the Netherlands and Spain show that this is not at all the case[v], with sometimes high residues of various pesticides being detected everywhere. Nor has PAN Europe found any publicly available information on a technology that would enable greenhouses to prevent the release of pesticides or other chemicals into the environment.

But as the analyses presented in this opinion show: The release of pesticides is one thing. Exposure of foodstuffs when pesticides are used is quite another!

We refer here to the Ecological Movement's recent position on the bill to promote the use of greenhouses for growing fruit and vegetables - cultivation criteria must be enshrined in law in order to guarantee environmentally-friendly production, including with regard to the use of pesticides.

On ALVA's recommendation to wash vegetables before eating them

In its report, ALVA *recommends that 'Given that some products may contain a high number of pesticide residues, we recommend that consumers always rinse conventionally grown fruit and vegetables thoroughly with water before eating them and eat fresh, seasonal produce, grown locally if possible. "*

Washing vegetables and fruit is certainly useful. But we know that vegetables and fruit absorb - albeit to varying degrees - pesticides that cannot be washed off. **The absolute priority must therefore be to avoid pesticides.**

It would therefore be appropriate for ALVA, in addition to its responsibility to rapidly withdraw contaminated food from consumption or systematically punish offences, to encourage citizens to buy organic food. Objectively speaking, this would be a very important recommendation.

Conclusions of the Ecological Movement - Radically limit the use of pesticides - Promote organic farming methods more!

The toxicity of pesticides on humans and the environment is clear and has been known for a long time:

- **Pesticides damage biodiversity** by killing not only harmful insects, but also useful insects such as pollinators and organisms living in the soil, thereby upsetting the ecological balance. In the long term, they alter habitats and food chains, jeopardising the survival of many animal and plant species, and polluting our soil and drinking water. **The use of pesticides is largely responsible for the extinction of species.**
- In humans, the effects can be of different kinds. The list of potential dangers is long: from acute and chronic skin **diseases** to malformations in newborn babies, as well as symptoms of intoxication in the event of direct contact, cancer and disorders of fertility and genetic heritage. [vi]. Pesticides are considered to be one of the world's most dangerous environmental pollutants. Various illnesses caused by pesticides (e.g. Parkinson's disease, cancer) have already been recognised as occupational diseases in Luxembourg.

The Ecological Movement demands :

1. Strengthen the rules

The EU must ensure that imported products comply with EU rules and do not create conditions of unfair competition. The export of pesticides banned in the EU must be stopped and the import of products containing banned pesticide residues must be banned. Luxembourg must exert pressure at EU level to obtain this innovation.

2. Luxembourg's commitment at EU level to the systematic elimination of pesticides

Luxembourg should commit to the systematic elimination of pesticides. This includes supporting stricter European regulations, promoting the banning of particularly harmful active substances and promoting alternative and environmentally-friendly cultivation methods. In addition, Luxembourg's representatives can play an active role in the relevant European bodies to push for an ambitious reduction in the use of pesticides, for example by tightening up authorisation procedures and setting binding reduction targets. A pioneering role at national level through stricter laws, financial incentives for pesticide-free agriculture and transparent reporting also strengthens the position in EU negotiations and increases the pressure on other states to act in the same way.

3. Revision of the action plan on pesticides - drastic reduction by 2030

Luxembourg has had an action plan on pesticides since 2017. This provided for a 50% reduction in the use of plant protection products by 2030, as well as a 30% reduction in 'big movers' by 2025.

For the Mouvement Ecologique, the targets set at the time were not enough. It is therefore all the more interesting to see whether they have at least been achieved. The Ecological Movement expects the Ministry to specify in the short term:

* what measures have been implemented
* what reduction targets have been achieved
* what obstacles have hindered implementation and how they could be overcome;
* and what other concrete measures might be required as the situation evolves.

It is essential to ensure a broad dialogue on these issues, which goes beyond the circle of agricultural stakeholders and includes, in particular, stakeholders in the environmental, health and consumer fields.

4. Strengthening national pesticide authorisation procedures

Although the EU approves the active substances of plant protection products centrally, Member States can regulate or ban their use at national level. Each country has the option of going beyond European requirements and adopting more stringent environmental and health protection measures. This must be done on the basis of the latest scientific knowledge, irrespective of economic interests. Luxembourg could set an example by banning the most problematic pesticides, such as glyphosate or PFAS-based pesticides, and helping farmers to switch to safer and more environmentally-friendly alternatives.

5. Systematically promote organic farming

The PAN Bio action plan is coming to an end. Here too, as with the action plan on pesticides, an honest analysis needs to be made of which objectives have been achieved and which have not. Here too, an open dialogue is needed to determine what form the new action plan should take. In this context, the state needs to invest much more money and resources in organic farming. This also unequivocally implies a transparent report on the differences in pesticide contamination between conventional and organic products!

6. Redirecting Common Agricultural Policy funds

Common Agricultural Policy (CAP) funds should be used to help farmers adopt agro-ecological practices. Subsidies should be linked to reducing the use of pesticides.

7. Strict conditions for greenhouse production too

There is a state bill to promote greenhouses. In total, the State plans to invest more than 20 million in this sector. But so far, no criteria have been set for cultivation. The Ecological Movement insists that only sustainable cultivation methods should be encouraged by the State, starting with the choice of resistant varieties that reduce the use of pesticides as much as possible.

8. Penalties for importing and marketing contaminated foodstuffs

On the one hand, it must be ensured that unacceptably contaminated foodstuffs are immediately withdrawn from the market. On the other hand, importers and distributors should be obliged to rely more on suppliers whose experience shows that they offer products with low levels of pesticide contamination.

9. Extending the Restopolis model to all public canteens

Restopolis, the Ministry of Education body responsible for supplying school canteens, has introduced quality criteria for its food. Preference is given to organic and regional foods. It should go without saying that this innovative project should be extended to other public canteens, in the interests of protecting the environment and health.

10. Honest and transparent information for the public

The various ministries (Agriculture, Environment, Health) must provide much more systematic information on the subject and promote the purchase of organic food. ALVA reports should also show more clearly the significant differences in exposure between organic and conventional products.

Sources

[i] Rapports annuels des systèmes de contrôle https://securite-alimentaire.public.lu/fr/organisme/pcnp/rpt.html

[ii] The 2022 EU report on pesticide residues in food https://multimedia.efsa.europa.eu/pesticides-report-2022

[iii] EU Pesticides Database https://food.ec.europa.eu/plants/pesticides/eu-pesticides-database_en

[iv] Population-based biomonitoring of exposure to persistent and non-persistent organic pollutants in the Grand Duchy of Luxembourg: Results of hair analysis, Environment International, Volume 153, 2021

[v] Pesticide Action Network Europe. It rains pesticides from greenhouses; The end of a myth, greenhouses are releasing pesticides into the environment. 2024.

https://www.pan-europe.info/resources/reports/2023/12/it-rains-pesticides-greenhouses-end-myth-greenhouses-are-releasing

[vi] https://www.bund.net/umweltgifte/gefahren-fuer-die-gesundheit/