

The Sustainable Use of Pesticides Regulation (SUR)

Harmonised-Risk Indicators (HRI) 1 - IFOAM Organics Europe Presentation
CDG Environment and Climate Change – 19 October 2022

IFOAM Organics Europe welcomes the proposal on the SUR

A key instrument

- to reduce the impact of pesticides on human and animal health as well as on the environment;
- and to fulfil the ambition of the **Farm to Fork Strategy**, and especially to reach its **targets on pesticide reduction**:
 - reducing the overall use and risk of chemical pesticides by 50% by 2030;
 - reducing the use of more hazardous pesticides by 50% by 2030.

Organic farming refrains from using synthetic pesticides & looks for their alternatives (ie. Preventive farming methods, natural substances). Thus, the **SUR should fully recognise the contribution of organic farmers to the reduction in the use and risk of pesticides.**

PAN Europe & the Court of Auditors highlighted the limits of the HRI

The Harmonised Risk Indicator 1 (HRI-1), which Member States adopted in 2019 to measure the use and risks of pesticides:

- **has been contested** by [PAN Europe](#) ever since its adoption;
- **and was since found to be inappropriate by the [European Court of Auditors](#)** as it shows " limited progress in measuring and reducing the associated risks". The Court of Auditors called on the European Commission to improve the HRI-1 already in 2020.

What are the reasons?

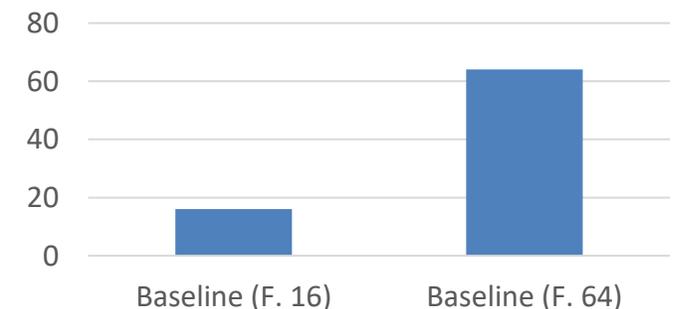
- **The supposed reduction** indicated by the HRI-1 is mainly **due to a decrease in sales of substances that are no longer approved** (weighting factor 64), and not to an actual reduction in pesticide use.
- HRI-1 is a **quantity based indicator** that measures the same risk for e.g. one kilogram of a nerve agent such as the highly bee-toxic insecticide deltamethrin, as for one kilogram of quartz sand, which is not hazardous.

HRI-1= quantity x weighting factors category

- **Factor 1:** low-risk pesticide active substances
- **Factor 8:** approved active substances that do not fall into any other group
- **Factor 16:** substitution candidates
- **Factor 64:** not approved active substances

Weighting factors can, in themselves, incentivize the shift towards low-risk active substances but **most substances fall within the factor 8 category and are given the same risk profile, and the category with factor 64 is problematic in itself. Why?**

- **Banned substances that are not used anymore will automatically trigger a pesticide reduction** compared to **the baseline** for national pesticide reduction targets.
 - Skews figures towards reduction retroactively.



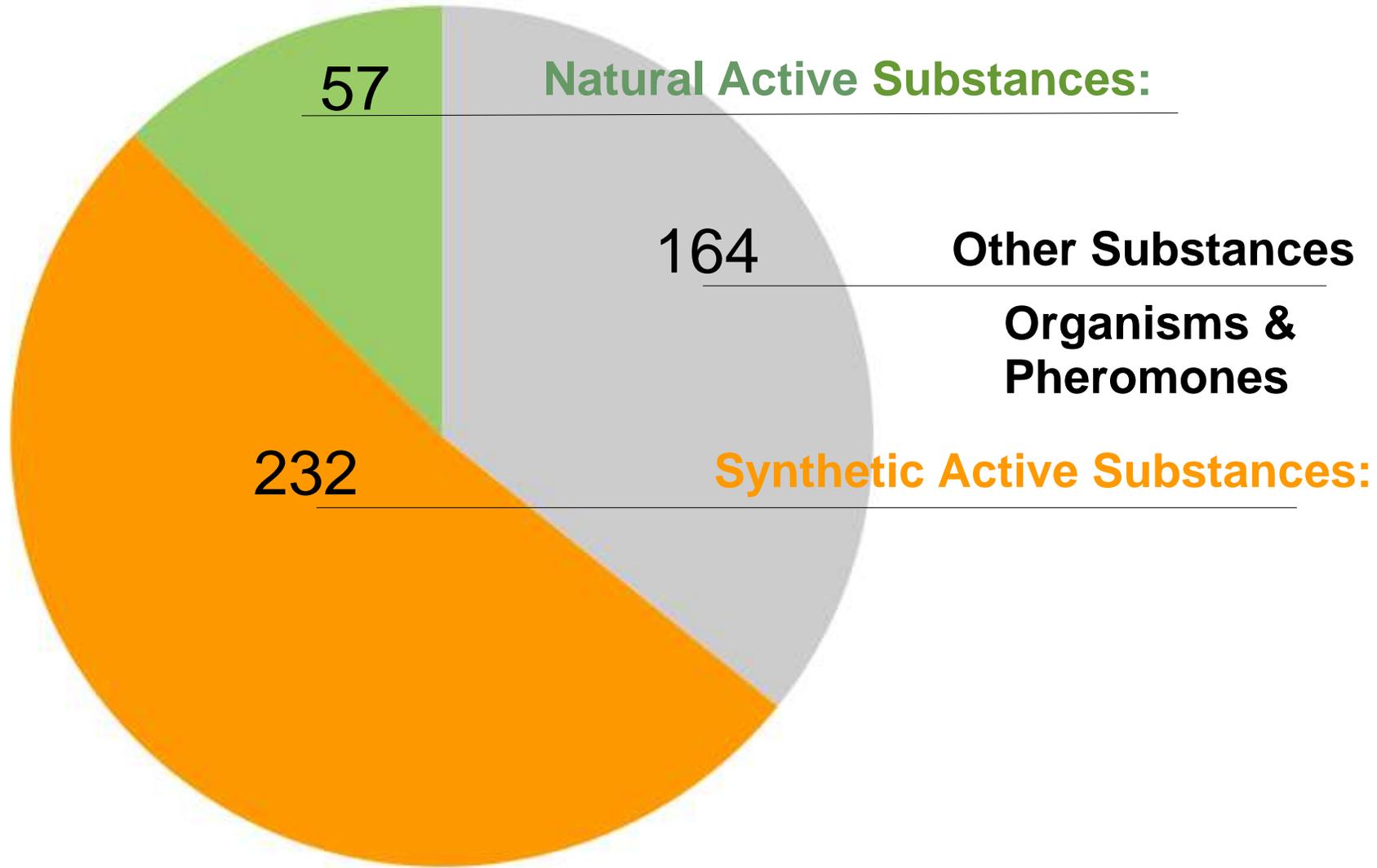
HRI-1 discriminates against natural substances

The HRI-1 indicator is a volume-based indicator which discriminates against natural substances allowed as pesticides in organic farming, which are all used in far greater amounts per hectare than synthetic chemical pesticides, due to a different mode of action, but for which the risk / toxicity is generally lower.

Even within conventional pesticides, there is a systematic bias in favour of the most toxic ones, which toxicity is systematically underestimated when the HRI 1 is applied. This is particularly true for highly toxic insecticides such as pyrethroids or neonicotinoid-like pesticides, due to an **inverse correlation between the toxicity of active pesticide substances and their application rates per hectare.**

Relying on a misleading indicator to measure pesticides reduction is ineffective and unfair to **organic farmers who are the ones who strive to find alternatives to toxic synthetic pesticides.** It is also in contradiction with the EU's target of reaching **25% organic agricultural area by 2030.**

453 Pesticide Active Substances



Natural Active Substances:

Plant, animal, microbial
Salts & Minerals
Sulphur, Copper
Baking Soda
etc.

Other Substances

Organisms &
Pheromones

Synthetic Active Substances:

Neonicotinoids
Glyphosate
Difenoconazole
etc.



Example showing the limits of HRI-1: control of powdery mildew in viticulture

	SULFUR	PENCONAZOLE
Approval	Organic (and conventional)	Conventional farming
Risk rating	Approved active substances that do not fall into any other group	Approved active substances that do not fall into any other group
Weighting factor (WF)	8	8
Application rate per hectare	6,400 g/ha	32 g/ha
Contribution of this application to HRI 1	$6,400 \times 8 = 51.200$	$32 \times 8 = 256$

Source: GLOBAL 2000 (Friends of the Earth Austria)'s [paper](#)



Second example showing the limits of HRI-1: scab control on 1 hectare apple orchard

	POTASSIUM HYDROGEN CARBONATE	DIFENOCONAZOL
Approval	Organic (and conventional) farming	Conventional farming
Risk rating	Low risk Active substances	Candidates for Substitution
Weighting factor (WF)	1	16
Application rate per hectare	7,500 g/ha	56 g/ha
Contribution of this application to HRI 1	$7,500 \times 1 = 7.500$	$56 \times 16 = 896$

Source: GLOBAL 2000 (Friends of the Earth Austria)'s [paper](#)

The SUR indicator should take into account the area treated

The **HRI-1 indicator is a volume-based indicator** which discriminates against natural substances where the volume used can be higher than for synthetic pesticides but where the risk / toxicity is generally lower.

Relying on a misleading indicator to measure pesticides reduction is ineffective and unfair to **organic farmers who are the ones who strive to find alternatives to toxic synthetic pesticides**. It is also in contradiction with the EU's target of reaching **25% organic agricultural area by 2030**.

There are already more suited indicators used at national level in some Member States that :

- take into account **the area treated with a given volume of active substance,**
- rely on existing data on **pesticides sales and maximum application rates per hectare**
- can **be readily used** to fix the SUR.

Example: The NODU indicator used in France

Problem = the HRI-1 does not take into consideration the hectare application rate for active substances. They are set for plant protection products (but not for active substances) and can vary according to the plant species, pest and crop stage.

Solution = Calculation of a reference hectare application rate for each active substance from the hectare application rates of all PPPs that contain the active substance in question, applying a clear and meaningful calculation rule.

The NODU gives information **on the intensity of the use of pesticides**, with an **indicator in hectares** reflecting the total area that would be treated with **the active substances sold** annually. The advantage with this indicator is that it does not discriminate against natural substances. **This data is already available** to the Commission & Member States.

How to get a reference hectare application rate for each active substance?

There are two equally viable approaches to fix the HRI 1:

- The NODU concept of using national PPP-registry data: the necessary hectare application rates for active substances are calculated from the **hectare application rates of the PPP that are available in each national PPP-registry database** (as a legal requirement)
- The other approach is based on the hectare application rates for the representative uses that have been subject to the active substance approval by EFSA. These data can be found in the **Implementing Acts on the active substance approval on the Commissions website**. Some government agencies are currently transcribing these data into a database, so that these data will also be available also electronically and publicly.



A simple solution to improve the HRI-1

To improve weighting factors: banned pesticides should keep the same weighting factor as when authorised to avoid a retroactive increase of the baseline

HRI-1 = Sum of all active substance sales volumes multiplied by the corresponding weighting factor **1, 8, 16, 64**

To take into account the area treated (NODU approach):

HRI-1 =

Sum of all active substance sales volumes *divided by the respective reference hectare application rates of the active substances* and multiplied by the corresponding weighting factor **1, 8, 16, 64**

To go further

To go further, you can read :

- GLOBAL 2000's [paper](#) on the HRI-1
- IFOAM Organics Europe's [note](#) on indicators and the NODU,
- and our [press release](#).

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