What is FloriPEFCR and why is this environmental product footprint calculation essential for our sector?

As an entrepreneur, do you want to know exactly the emission of products you grow and what their impact is on the environment? Do you also want to calculate a possible sustainability investment in terms of environmental impact? Or simply gain more insight into the effect of your production on the environment? There is now tooling for this.



A uniform standard method has been developed especially for floriculture that provides insight into this and complies with EU standards: the FloriPEFCR (Floriculture Product Environmental Footprint Category Rules). Nowadays, there are tools that can make calculations based on this FloriPEFCR footprint calculation methodology and pre-calculate sustainable alternatives.

In the Q&A below, you will find all the answers to your questions about the **FloriPEFCR environmental product footprint**:

General information for Growers and wholesalers

Q: What is footprint and why is footprint becoming increasingly important?

Having insight into the footprint of your product is becoming increasingly important. New European legislation such as CSRD and CSDDD – even if this legislation is simplified in the near future – increasingly imposes requirements on companies when it comes to the impact that products have on the environment. For example, Europe has the ambition to emit 55% less CO2-eq by 2030. This leads to supply requirements from customers, which wholesalers in particular have to deal with. That is why larger wholesalers already need this data now and will already ask for it in order to be able to meet the wishes of their customers.

Product footprint provides insight into CO2-eq emissions, but also into other environmental risks that play a role within our sector, such as water use/water pollution, air and soil pollution, use of crop protection products and use of fossil raw materials, for example peat in substrates. Themes that rapidly increase in attention.

This makes product footprint the next necessary step - after certification - on the road to a more sustainable floriculture sector. So don't wait any longer, but start now with the FloriPEFCR footprint.

Q: What is FloriPEFCR?

A FloriPEF product footprint is a calculation methodology that goes through all 8 life phases (= life cycle) of a product and measures – via a number of specific indicators -
per life phase the environmental impact released during the relevant life cycle phase of a product All life phases added together result in a total score (single score) of the environmental impact that the entire life cycle of the product entails.

Q: What are the benefits of FloriPEFCR?

Benefits of FloriPEFCR:

1. **Direct insight into your business performance:** Control and insight into the environmental impact of energy, water and resource use.
2. C**ost savings:** Optimization of processes leads to more efficient use of raw materials and energy.
3. **Stronger market position:** Customers are increasingly looking for sustainable suppliers.
4. **Prepared for the future:** European regulations increasingly demand transparency in sustainability. With the FloriPEFCR you are ready for what is to come.
5. **Total environmental impact.** It makes the sustainability picture more complete by not only looking at CO2-eq, but also at 16 other impact indicators.

Q: Who is FloriPEFCR for?

The FloriPEFCR Footprint maps the entire life cycle of a product and is therefore not only a must for growers, but also for wholesalers and retailers. Every link in the chain has an influence on the reduction of the footprint of the product.

The grower has the greatest influence on the footprint of a product, phases 1 and 2 and part of phase 3 of the life cycle are - depending on the product - good for 40% to 80% of the total footprint value. In addition, air transport has a major impact. Wholesalers, retailers and specialist traders can further reduce the footprint by arranging transport efficiently and sustainably and by making a sustainable choice when packaging the product (phases 3, 4, 5 and 6). Ultimately, the outcome of the FloriPEFCR is an outcome of the entire production chain. In case no primary data is available, standard values (so-called default values) are used that have been substantiated by the WUR and accepted by the EU. For example, for phases 7 and 8 (the usage phase and end of life), a standard value (default) is always calculated.

In short, reducing the footprint of a product is not only the responsibility of the producer, trade and the sales channels also have a share in this.

Q: How does the FloriPEFCR work and what data are needed for this?

The FloriPEFCR calculation methodology is like a large recipe book. You choose a dish from it, and for each step it is clear what you have to do and which ingredients (data) are needed.

Each indicator represents an environmental theme. Think of climate change, land use, water use or depletion of resources. The results of the indicators together are converted into one total score (also called the single score). The scores are therefore mutually comparable on many more points than just CO2-eq emissions or the use of crop protection products. This makes the environmental impact of the floriculture sector visible in its full scale.

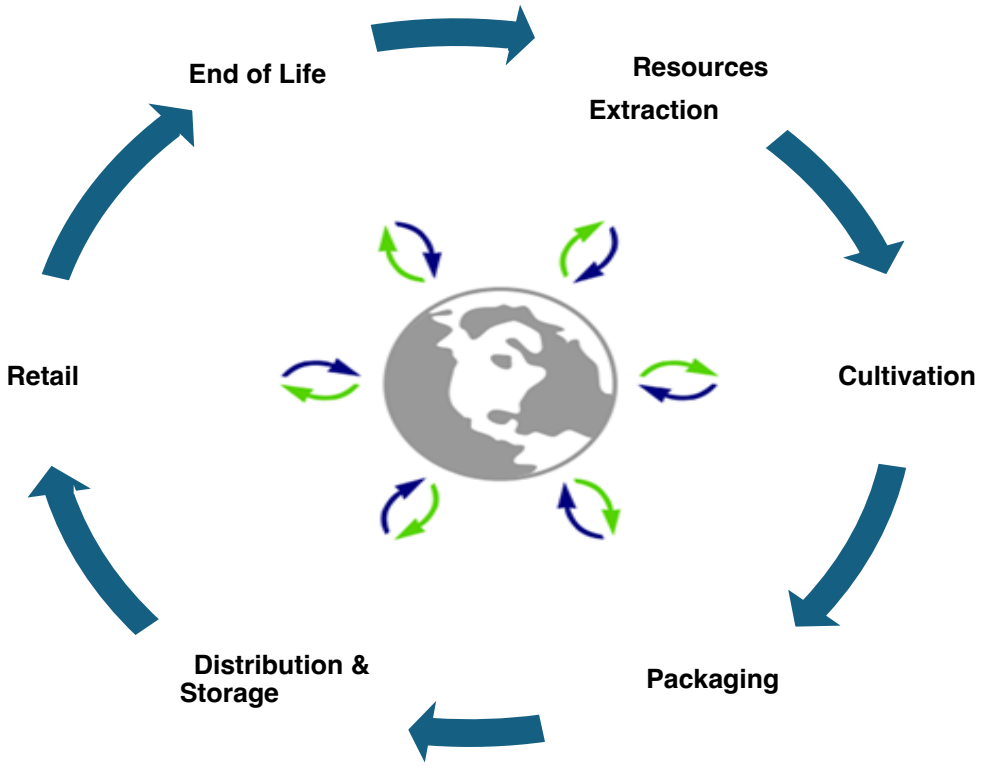
Much of the required data is available within the company. Think of capital goods, material use, energy use, water use, fuel, transport movements, packaging and waste. Additional input can be obtained from supplier queries, additional measurements or existing public sources. Providers of the FloriPEFCR Footprint tools will support in collecting the right data. Fact is: the more data you already have available, the easier it is.

Finally, it is important that the collected data is valid, i.e. verified for truth.
If you already have certifications from the "Environmental" basket of FSI (Floriculture Sustainability Initiative), your data has already been verified during this audit. If this is not the case, an external audit will have to be carried out by a controller who checks whether the correct standard/methodology has been used.

Q: What does FloriPEFCR measure?

The product footprint shows the total overview of the environmental impact of a product, in which all 8 life stages of the product are included. These life stages are the same for flowers and plants:

Stage 1: Raw Materials
Stage 2: Production (Cultivation)
Stage 3: Distribution (Distribution)
Stage 4: Storage (Storage)
Stage 5: Auction/Trade (Auction/Trade)
Stage 6: Retail (Retail)
Stage 7: Use stage (Use stage)
Stage 8: End-of-Life (End-of-Life)



Within all these life phases, 16 environmental indicators are measured in the same way, so that you can compare the results both within the same life phase and added together. The 16 environmental aspects are the same for all PEF footprints:



Q: What can you do with FloriPEFCR data?

Footprint data is primarily an insight into the environmental impact of the various business processes for growers. Secondly, as a grower you can compare products and learn from each other. It is a good opportunity to start to discuss with various parties in the chain to see where the reduction opportunities lie and where it is therefore smartest to invest in sustainability.

Footprint data therefore provides insight into the various processes within your company. By turning the wheels yourself and tackling the biggest hotspots within your own company, this can lead to more efficiency and reduction. This applies not only to the grower, but also to wholesale and retail. Besides, you can also use the tool to calculate scenarios what the impact will be if you invest in more sustainable solutions, such as heat/cold storage or other forms of energy instead of gas or electric transport compared to transport on fossil fuels.

As a grower with a FloriPEFCR footprint, you can also demonstrate to buyers that you have collected all this data, that you have taken measurements and can use this to help buyers comply with legislation, as well as with a product with a lower environmental impact in the future. By making this known, you are also more easily found by buyers who need this information for their customers or who are looking for more environmentally friendly alternatives.

FloriPEFCR is therefore a great opportunity to show the market that you are working on reducing your environmental impact and an opportunity to positively distinguish yourself from competitors who are not that far yet.

Finally, the output of the footprinting tools is comparable and exchangeable. This makes it possible to compare and benchmark the results. As a grower, you can quickly see how your product is doing compared to other, comparable products - in a positive and negative sense. This helps with planning and strategy: positive outliers are interesting to distinguish yourself and to give buyers an environmentally conscious choice. The negative outliers show precisely where reduction can be useful and where action is still needed.

Q: Who can see this FloriPEFCR data and how is it unlocked?

Let’s start by saying that you always remain the owner of your own footprint data and that you ultimately decide which data to share and with whom. However, you will increasingly receive questions from customers, government or financial institutions who request insight into certain footprint data because legislation (CSRD/CSDDD) requires this information from them. For example, retailers are currently mainly focused on CO2-eq emissions within footprint, but in the near future other environmental indicators could also be requested.

Within the sector, we are already brainstorming how we can exchange desired data digitally within the chain in the foreseeable future, of course with your permission.

Q: How do I get started with FloriPEFCR and what are the costs?

Two footprinting tools are now available that are fully based on FloriPEFCR. These tools – the HortiFootprint Calculator from MPS and the Flori Footprint Tool from Greenhouse Sustainability – have been approved for use by FSI. The accepted tools enable data exchange via a standard message protocol, which is developed by Floricode.

So, for a footprint calculation, you can go to MPS or Greenhouse Sustainability. They have the expertise and meet the FSI standard. It is expected that more (international) providers will follow in the future.

The average investment for a license to make as many product footprint calculations as you wish, is between €2000 and €2500 per year. Depending on already (correctly) validated available data, a footprint calculation - including collecting the necessary data - takes an average of 1 month to make.

Q: Who offers FloriPEFCR?

For a footprint calculation, you can contact MPS or Greenhouse Sustainability. They have the expertise and comply with the FSI standard. It is expected that more (international) providers will follow in the future.

MPS

HortiFootprint calculator: www.hortifootprintcalculator.com
General information: www.my-mps.com

Greenhouse Sustainability:

Flori Footprint Tool: Measuring environmental impact - Greenhouse Sustainability
General information: www.greenhouse-sustainability.com

Q: What is the advantage of FloriPEFCR for the sector?

The floriculture sector is increasingly under the magnifying glass. This standard method - approved by the European Commission - will make it possible in the near future to substantiate and present the footprint of the sector as a whole. This way, we work together to reduce the footprint and increase trust and transparency for our sector. This also helps to make the sector future-proof.

Since November 2024, the first environmental impact calculations of flowers and plants have been made using the FloriPEFCR method. These results (the so-called 'single scores') provide insight, identify opportunities and stimulate improvement in the sector.
However, for a valid result, the average score over 3 years of footprint data is required.

In the long term, the FloriPEFCR can be used as the basis for a classification system for flowers and plants. But this requires a large number of scores per type of flower or plant.

Q: Why is FloriPEFCR the footprint standard for the floriculture sector?

There are many ways to calculate a footprint, but for reliability and consistency within the entire chain, it is essential that everyone uses the same standard calculation methodology, otherwise the results are not comparable.

Since February 2024, the floriculture sector has its own standard calculation methodology: the FloriPEFCR. This calculation methodology is based on a Product Environmental Footprint Standard recognized by the European Commission and was developed on the initiative of Wageningen University (WUR) and Royal FloraHolland in close collaboration with many international chain partners and the European Commission.

Because the FloriPEFCR footprint is based on European calculation rules and is recognized by the European Commission, the results can be used for CSRD reporting. Sustainability claims can also be made if they are substantiated with data based on the FloriPEFCR.

The aim of the FloriPEFCR is therefore to show the environmental impact of floriculture products in a clear and verified manner. This insight helps to reduce the environmental impact of these products. The FloriPEFCR ensures a level playing field between products, with reliable and comparable results that provide fair insight into environmental impact.

Q: Does FloriPEFCR help with 'Green Claims'?

An important goal of the FloriPEFCR is to prevent companies from making incorrect environmental claims, which sometimes leads to 'greenwashing'. This means that products appear more environmentally friendly than they really are. If 'green claims' are not checked, they can mislead consumers and be unfair to companies that are genuinely trying to become more environmentally friendly. The European Union is working on a new law, the Green Claims Directive, which will set clear rules about what constitutes a reliable 'green claim'. This law is still in the making. With the FloriPEFCR, companies that genuinely reduce their environmental impact can reliably calculate, compare, and prove their efforts.

Development of FloriPEFCR

Q: What is FloriPEFCR?

FloriPEFCR (Product Environmental Footprint Category Rules for cut flowers and potted plants) establishes clear and controlled rules for calculating the environmental footprint of cut flowers and potted plants according to the guidelines of the European Commission.

Definitions:

A Product Environmental Footprint (PEF) is based on a life cycle analysis (LCA) and is a method to assess the environmental impacts of a product, from the extraction of raw materials to processing at the end of its life.

Product Environmental Footprint Category Rules (PEFCR) are guidelines that build on PEFs with specific rules for product groups, such as floriculture products. PEFCRs only consider the most significant (top 80%) impact categories, life cycle stages, and processes for that product. PEFCRs can be integrated into any existing LCA.

Q: Who has developed FloriPEFCR?

In 2018, Royal FloraHolland, GroentenFruit Huis, and WUR started the 'Hortifootprint' project, co-financed by the Dutch Ministry of Agriculture. The project group also included MPS, Glastuinbouw Nederland, Natuur & Milieu, ABN AMRO, and Rabobank.

In 2019, FloriPEFCR was developed under the Product Environmental Footprint framework of the European Commission, with compliance to industry representation requirements by Union Fleurs. The Technical Secretariat (TS), led by WUR and Royal FloraHolland, carried out the technical work and managed the consultations.

The PEFCR 'Cut Flowers and Potted Plants' was approved by the European Commission in January 2024.

Q: Do new developments affect FloriPEFCR?

Yes. The FloriPEFCR is not fixed. There will be updates to improve the rules as new information becomes available. This will help to measure more types of products more accurately in the future. The FloriPEFCR will improve through engagement and use within the sector. Feedback with recommendations and gaps will be important for development in the coming years. The point of contact for development is FSI.

Q: Where can I find more information about the FloriPEFCR?

Floriculture Sustainability Initiative (FSI)
FSI 2025 – Floriculture Sustainability Initiative
FSI Basket of FloriPEFCR tools – FSI 2025
FloriPEFCR_QA_March2024.pdf

Royal FloraHolland:
FloriPEFCR
Twee FloriPEFCR footprint-tools… | Royal FloraHolland
Waarom FloriPEFCR interessant is voor… | Royal FloraHolland

MPS:
Home - MPS
Home - Horti Footprint Calculator

Greenhouse Sustainability:
Measuring environmental impact - Greenhouse Sustainability

European Commission:
PEF METHOD - European Commission

WUR:
FloriPEFCR approved by the European Commission - WUR