

A man with glasses and a light blue button-down shirt is standing in a greenhouse, holding a large black plastic crate filled with ripe red cherry tomatoes. He is looking down at the tomatoes. The background is filled with lush green tomato plants and leaves. The image is partially covered by a white diagonal shape on the right side.

Source of a healthy life



SUSTAINABILITY REPORT 2024

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Moving forward together in a changing world

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Foreword

At Harvest House, we stand for healthy, sustainable cultivation. For us, sustainability isn't a trend or a topic to tick off in a report, it's embedded in our DNA. Our growers have a long-term vision. They understand the importance of using energy, water, people, and resources with care. That's always been the case

but as the world in which we operate is changing at lightning speed, it's becoming more and more vital. Climate change, rising costs and tighter regulations are putting our sector under pressure. Despite those challenges, we also see opportunities to keep improving. By sharing knowledge, harnessing technology and working together, we're building a more sustainable future.

Our growers are entrepreneurial, forward-thinking, and driven to do better every single day. That mindset is the true strength of our cooperative. And it lives not only in our growers, but also in our colleagues who spot opportunities and seize them. We move forward as one. Every day, we make the conscious choice to push ahead. We connect people, knowledge, and technology to become better every day.

This report shows where we currently stand, where we need to improve, and how we plan to get there. We're committed to being open about our approach and to staying on a clear, purposeful path. Only if we work together and take responsibility will we continue to build a future-proof salad cultivation industry.

Jelte van Kammen
CEO Harvest House



Facts & Figures Harvest House 2024

Founded in
2013

450_M
kg of salads
per year

Turnover
1,4 B

Head office in Maasdijk

Offices in Portugal and France

1,226ha
cultivation
in total


654ha
tomato

477ha
bell
pepper


58ha
cucumber

36ha
organic

186ha
of cultivation
outside NL

More than **55%**
of the area cultivated in NL
uses green sources for heating

On track for our
2030 target: **50%**
fewer CO₂-emissions per kg
of product than in 2020

We grow in: Netherlands, France, Portugal, Tunisia, and Morocco

204 colleagues in total

Source of a healthy life

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1.1 We are Harvest House

Our mission and vision

We are Harvest House Harvest House is an international cooperative of passionate and dedicated growers. We dream on a grand scale: to make healthy, nutritious, affordable, and delicious food accessible to all. To put that into practice, we grow millions of kilos of tomatoes, peppers and cucumbers using sustainable and innovative methods. Our salads find their way to supermarkets and wholesalers across Europe, where it's enjoyed by millions of consumers every single day. In other words, we're a source of healthy living.

Sustainability is rooted in everything we do. We continually innovate to grow smarter and more sustainably, while making sure our products meet the evolving needs of consumers at the same time. We're proud to be among the frontrunners in the greenhouse vegetable sector. We're not afraid to lead the way or to challenge convention in shaping the future of horticulture. We're doers. That's our very essence. Knowledge-sharing is second nature to us, because collaboration runs deep in our culture. This is visible throughout the sector, because together we go further.

Sustainable ambitions

We have a clear goal: by 2040, we aim to grow climate-neutral crops. This ambition aligns with the targets set by Glastuinbouw Nederland, the Dutch national association for greenhouse horticulture, to drive sustainability across the sector. In 2022, we had our CO₂ reduction targets validated by the Science Based Targets initiative (SBTi). And in 2024, we took further steps to define value chain-wide targets (Scope 3) through SBTi.

Through all our efforts, we hope to contribute meaningfully to the Sustainable Development Goals and help make the world a better place. For example, we're working to ensure access to sufficient, nutritious food and actively fight food waste – contributing to the goals of Zero Hunger, Good Health and Well-being, and Responsible Consumption and Production.



We grow with minimal impact on the environment, but for us, sustainability goes far beyond eco-friendly production. It's also about healthy people and future-proof entrepreneurship. These three focus areas align with the international ESG themes outlined in the CSRD: Environment, Social, and Governance.

Together, our three pillars – planet, people, and entrepreneurship – form the foundation of our sustainability vision. We've captured that vision in what we call our home.

1.2 The power of the supply chain

In everything we do, we focus on the long term and think beyond today. Not just to be greener, but because we're committed to continuity. We're building a future-proof approach to both growing and doing business. This is reflected in our cooperative, with loyal partners who feel connected to Harvest House. That collective strength gives us the power to continue our advances towards sustainable food production together. The continued growth of our acreage underlines that confidence.

Within Harvest House, our 62 member growers work closely together, but our collaboration doesn't end there. We engage with partners across the entire supply chain: from seed to shelf. Our products are sold throughout Europe and beyond. That only works if you connect the right people and knowledge, which is why we work closely with our own dedicated sales companies, as well as carefully selected partners. Across the chain, we've built strong, strategic partnerships. Together, we're making the entire salad chain smarter, faster, and more sustainable. This enables us to make conscious, sustainable choices at every step; from seed breeding to packaging, and from labour to AI.

OUR SUSTAINABILITY POLICY



HEALTHY PEOPLE



HEALTHY PLANET



HEALTHY BUSINESS

**“By 2040,
we aim to grow in
a climate-neutral
way”**



1.3 The changing world of salads

The world is changing. Climate change, water scarcity and biodiversity loss are forcing us to find sustainable solutions for our planet. At the same time, growing vegetables is becoming increasingly complex. Costs are rising, profit margins are under pressure, and regulations are becoming stricter. As a result, product security can no longer be taken for granted.

While society often holds our sector under a microscope, we can be certain of one thing; greenhouse horticulture is part of the solution. First and foremost because it holds the key to food security. Our greenhouses are the best solution to grow healthy vegetables efficiently.

Building tomorrow's food chain together

We believe that collaboration and innovation are essential for future-proof food production, but we also recognise that there are challenges ahead which we have to confront head-on. We're investing in new technologies, managing labour intelligently, and always keeping our eyes on the future. Together with our growers, we look for solutions that really make a difference.

By joining forces, we can strengthen the chain and contribute to a sustainable and healthy future with enough affordable food for all.



Healthy planet

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We demonstrate how we manage our impact on the climate, nature, and natural resources. Important considerations here are our effect on the planet and how climate change affects our business. We measure, we invest, and we adjust where needed. This is how we're working step by step to achieve climate-neutral cultivation in 2040.

2.1 Data drives action: FreshProducePEFCR

We work every day to minimise our environmental impact, so that future generations can continue to enjoy fresh, healthy vegetables. For us, sustainability starts with insight, so we measure and monitor our impact in line with European guidelines under the FreshProducePEFCR. This allows us to make informed decisions and focus our efforts where they matter most.

Our ambition

We want a robust measurement tool that allows us to clearly define and track our sustainability goals. This allows us to take responsibility and keep control – control over our impact and over the conversation surrounding it, because we prefer to rely on solid data, not sentiment.

Where do we stand now?

For the fourth year in a row, we've gathered comprehensive sustainability data from all our growers. This enables us to measure progress, assess reduction plans, and forecast future scenarios. As we are a transparent cooperative, our growers can benchmark against each other, and we can clearly show our chain partners where we stand and our progress towards meeting our sustainability targets.

Making environmental impact measurable

We use the FreshProducePEFCR to objectively and transparently measure the environmental impact of our salads. It's not a new label, but a standardised LCA methodology that clearly shows the ecological footprint of our products. Sixteen indicators precisely identify where we stand and where we can improve. We measure these indicators from cultivation to the customer's distribution centre. The findings are clear; the greatest environmental impact lies in the cultivation phase – around 98%. Packaging accounts for less than 1%, and the impact of packing facilities and transport to the customer is even smaller.

European standard

Ambition for the sector

Our ambition is to help establish a Europe-wide recognised standard for measuring the environmental impact of products by 2030. This method will be applied across the entire supply chain, providing a clear answer to the growing number of sustainability labels, initiatives and regulations in the sector.

Where do we stand now?

The five producer organisations that make up the FVO* already use the FreshProducePEFCR to calculate the environmental impact of their products. Interest from other organisations is growing. Although formal recognition by the European Commission is still pending, we're currently working with the shadow version of the PEFCR, and Harvest House is actively engaging in discussions to help drive standardisation within the certification landscape.

The FVO is the Federation of Salad Organisations, made up of leading players in the sector, including Harvest House. See Chapter 4.1 on page 47 for more.

The calculation rules of the FreshProducePEFCR comply with European rules for calculating the environmental impact of a product; a Product Environmental Footprint (PEF). This means the FreshProducePEFCR can be applied to every fruit and vegetable company in Europe, enabling a fair comparison between products and helping create a level playing field.

As pioneers in salad cultivation, we actively encourage others in the sector to adopt the FreshProducePEFCR. If everyone calculates environmental impact in the same way, we can make fair comparisons

and provide a solid and transparent foundation for sustainability labels. The FreshProducePEFCR therefore offers a clear solution to the growing number of labels, initiatives, and regulations within the sector. Thanks to this uniform calculation method, we can substantiate the environmental impact of our products consistently and reliably. It also provides independent input for certification schemes, while helping to reduce the administrative burden for our growers.

Sustainability standard under development

Back in 2018, we helped lay the groundwork for this standardised calculation method for fresh fruit and vegetables. Harvest House played an important role in putting these calculation rules into practice. What began as a pilot project for salads, run with our growers in partnership with Wageningen University & Research (WUR) and GroentenFruit Huis, has since developed into a European calculation method for fresh fruit and vegetables.

Official recognition by the European Commission is expected in 2027. In the meantime, a draft version of the FreshProducePEFCR, created in collaboration with Freshfel Europe, is already available. This version follows the same calculation rules, enabling us to use the method today.



“Back in 2018, I was intrigued by the idea of an independent method to accurately calculate our environmental impact. We often say we grow sustainably, but just how sustainable are our products in reality? This method allows us to demonstrate that clearly and consistently.

I believe it's important that we take responsibility, that we're transparent about the sustainability of our production, and that we keep improving. The calculation method, which has since evolved into the FreshProduce-PEFCR, not only helps us measure with precision, but also calculate different scenarios. That supports us in making the right choices for our cultivation strategy.”

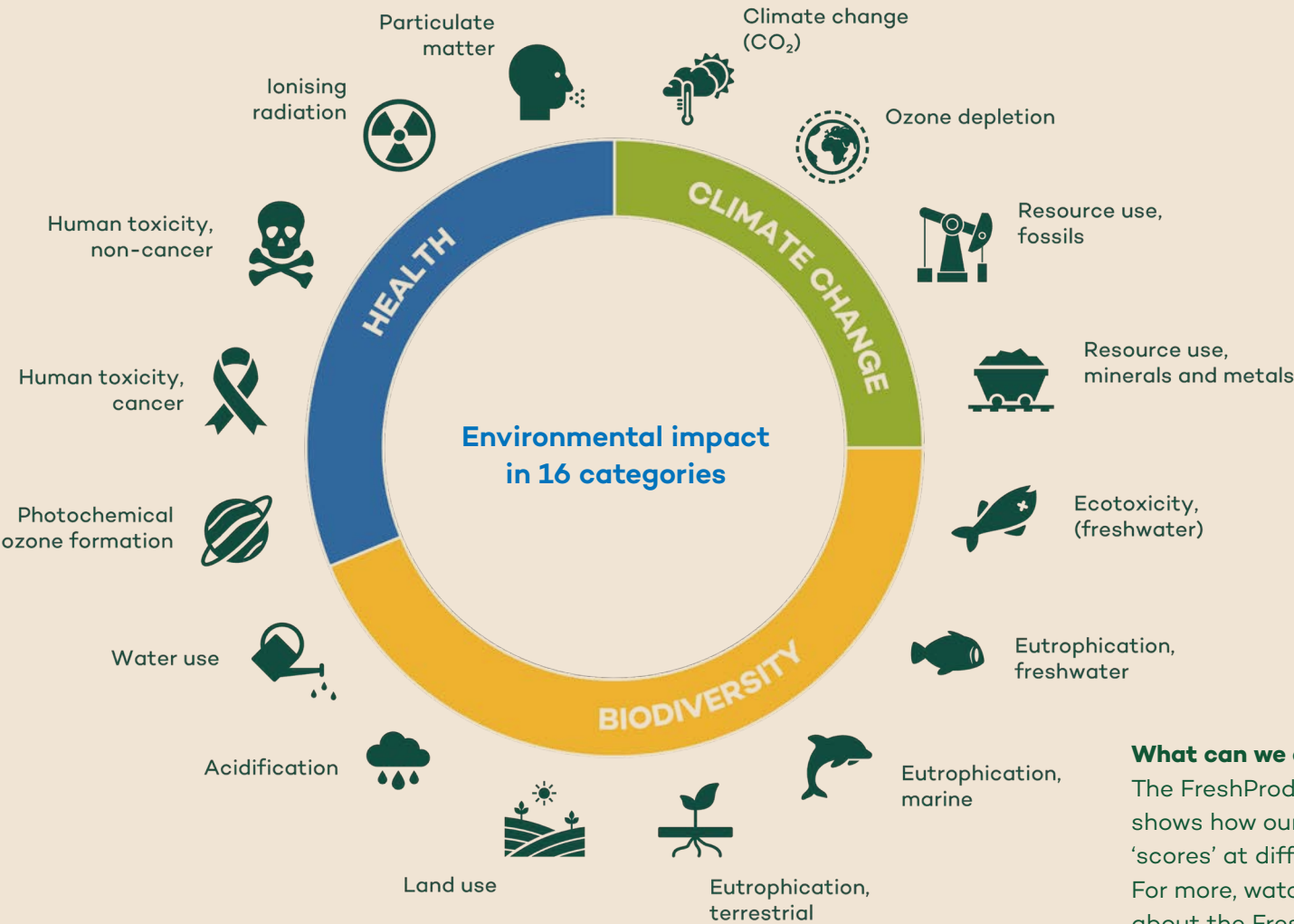
Arco Vreugdenhil
Rainbow Growers Group



The overall picture

Our footprint goes beyond climate change (CO₂ emissions) alone, as we also look at our impact on a healthy society and biodiversity. To visualize this, we use the FreshProducePEFCR to calculate the impact on 16 different categories, such as raw material consumption, land use,

and particulate emissions. Each category has its own unit and weighting, leading to a specific impact score. For example, climate change (CO₂) and raw material consumption weigh more heavily, while acidification is assigned a lower weight.



What can we do with this data?

The FreshProducePEFCR shows how our product 'scores' at different levels. For more, watch this video about the FreshProducePEFCR:



Jelle Posthuma, Environmental Specialist at Harvest House, uses the FreshProducePEFCR on a daily basis. "Every year, our growers provide a comprehensive set of data, from energy use and fertilisers to growing techniques. With that information, we calculate a score that reflects the environmental impact per kilo of product. We can do this per grower, but we can also zoom in on a specific growing location or zoom out to look at a growing group or product segment. It provides us with an incredible amount of insight."

How are those insights used?

"All the data is bundled and reflected in our FreshProducePEFCR dashboard. This allows us to compare sustainability performance and share best practices across the cooperative. Growers can clearly and transparently see how they compare to colleagues. It's not about pointing fingers, but about learning from each other; why does something work well for one grower but not for another? We can also use the FreshProducePEFCR to predict the effect of certain investments in sustainability, such as using residual heat or switching to green electricity."

What else do you use the dashboard for?

"We use it to closely monitor our reduction plans, and know exactly whether we are on track to meet our CO₂ targets. It also helps us measure the impact of investments and immediately shows us how changing energy

profiles affect trends. The dashboard gives us the flexibility to look at the data in different ways; per kilo of product, per square metre of cultivation, or simply in global terms. We can compare consumption figures with impact figures and analyse in detail where the environmental impact is coming from. For example, we can see how a biomass installation affects particulate emissions. That helps us better understand which sustainable choices truly make a difference."

'We make the real impact of sustainable choices visible'

Jelle Posthuma
Environmental Specialist
Harvest House

Ambition

By 2030, we aim to reduce CO₂eq emissions by 50% per kilo of product compared to 2020. We also aim to reduce the total environmental impact per square metre across all categories.

Where do we stand now?

In 2024, we achieved a 21% reduction in CO₂eq emissions per kilo of product compared to 2020. Our total environmental impact was 36% lower per m² than in 2020.

* Figures are based on current calculation rules. We will use an updated calculation method in 2025.



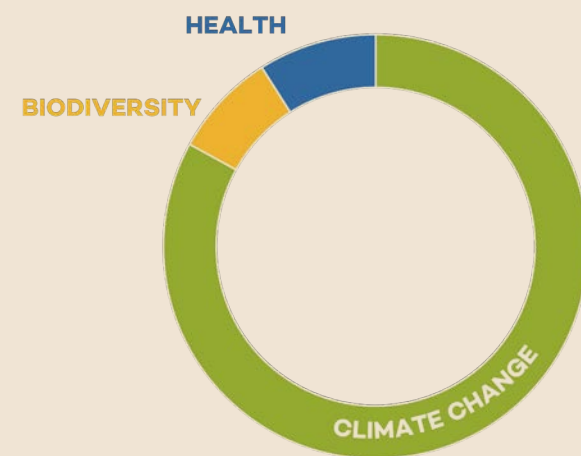
Impact measured

We assess the total impact of our product per kilo, based on 16 environmental categories. To understand where we make the most impact, we group the data into three themes; climate change, healthy society, and biodiversity. Currently, the greatest impact is related to climate change, which is why we're actively addressing this in our reduction plans and sustainability objectives.

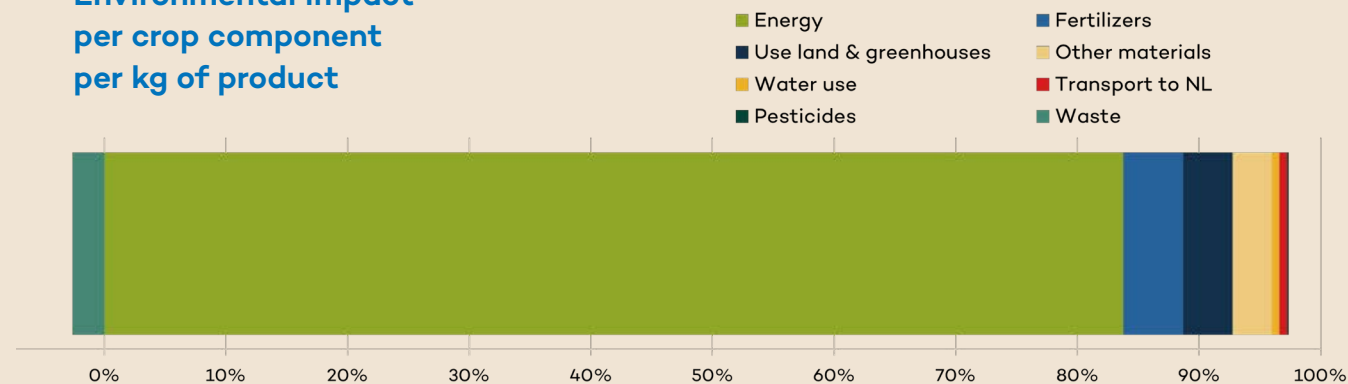
Because we collect extensive data from our growers, we gain insight into the overall impact, and what's causing it. This enables us to target specific improvements.

To better understand that impact, we break the cultivation process down into components such as energy use, fertilizers, and crop protection. The FreshProducePEFCR clearly shows that energy use has the largest share in our total environmental impact. Reducing CO₂ emissions and making our energy use more sustainable are therefore top priorities. We're also committed to reducing the impact of fertilizers and crop protection products.

Environmental impact by theme



Environmental impact per crop component per kg of product



From measurement to social value

Because the FreshProducePEFCR is a transparent and standardized measurement method, we can use these insights more broadly within the sector and in society at large. We increasingly collect sustainability data via GreenlingData, an automated registration tool used by the five salads producer organisations that form the FVO.

This automation allows us to deploy data more widely and efficiently. Information on energy use, for example, doesn't just help us calculate impact, but also supports broader sustainability requirements. This includes aspects such as CSRD reports, where we have to provide chain data on energy consumption, and SBTi targets, for which we need insight into our scope 3 emissions.

We also use the FreshProducePEFCR data to calculate the environmental cost of our products. This allows us to translate sustainability from greenhouse practice to societal value. One example is the True Value project, which shows the full cost-benefit profile of greenhouse vegetable cultivation. (See also chapter 4.1, page 47).

Through the FreshProducePEFCR, we are laying a solid foundation, both for improving sustainability at business level, as well as for accountability to value chain partners, policymakers, and society as a whole.



2.2 Climate-neutral cultivation

Our biggest challenge and greatest goal is in the field of climate change (CO₂). We are aligned with the ambition of Glastuinbouw Nederland to achieve climate-neutral cultivation by 2040.

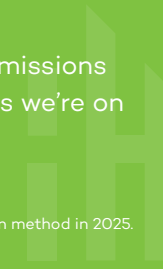
Ambition

By 2030, we aim to reduce CO₂eq emissions by 50% per kilo of product compared to 2020. It is the prelude to our 2040 goal; climate-neutral cultivation of our products.

Where do we stand now?

In 2024, we achieved a 21% reduction in CO₂eq emissions per kilo of product compared to 2020. That means we're on track for our 2030 target.

* Figures are based on current calculation rules. We will use an updated calculation method in 2025.



To reach these goals, we've developed ambitious reduction plans with our growers. These are tailored per grower and per greenhouse, since every location faces its own unique challenges and opportunities.

What we all share in common is a continuous drive to become more energy-efficient. We use smart, energy-efficient cultivation techniques to give each plant precisely what it needs. Examples include energy-efficient LED lights that use less power to light crops, energy screens that keep heat in the greenhouse, dehumidifiers that ensure the greenhouse is better ventilated without heat loss, and renewable energy sources such as geothermal, biomass, and residual heat.



Sustainable heat

In the ideal greenhouse of the future, we will use a combination of different renewable energy sources, such as geothermal, biomass, residual heat, and hydrogen. Some of these sustainable solutions are already in use, while others are still being studied. At present, more than half of our cultivation area is already connected to a sustainable heat source.

For example, nine of our growers use geothermal energy, covering 22% of their heat demand. The tomato grower A+G van den Bosch in Bleiswijk has been using geothermal energy for nearly 18 years. Pepper grower 4Evergreen in Terneuzen uses residual heat and CO₂ from a nearby fertiliser factory.



“We extract hot water from a depth of 2 km and use it to heat the greenhouse. Previously, we used natural gas for this, but thanks to geothermal energy, that’s no longer necessary. The beauty of geothermal heat is that it’s very similar to using fossil energy in our cultivation strategy. I’m happy that we can grow tomatoes with a very low environmental impact thanks to this solution.”

Bart van den Bosch

A+G van den Bosch



“The heat and CO₂ released during fertilizer production are transported through a pipeline network to our greenhouse in Terneuzen. We use this to heat the greenhouse and stimulate the growth of our pepper plants. The plants convert the CO₂ into oxygen. At our Terneuzen location, we no longer need any natural gas at all. Our ambition is to be, and remain, the most sustainable pepper grower in the Netherlands. Our goal; by 2027, 70% of the energy used at all our locations will come from sustainable residual heat, and by 2032, this will be 100%.”

Robert Grootenboer

4Evergreen

Smarter growing with less heat loss

Our pepper plants thrive in a warm greenhouse climate, which requires energy. That's why we're constantly searching for smart ways to use that energy efficiently, such as keeping the windows closed as much as possible and dehumidifying the air, without compromising a healthy greenhouse climate. The Kwekerij

Overgaag nursery is the first pepper grower to use a state-of-the-art air handling unit (AHU). This technology reduces heat loss and saves energy. The AHU removes moisture from the greenhouse by blowing in dry air from outside. This keeps windows and screens closed longer and keeps precious heat and CO₂ inside the greenhouse.

"In our newest greenhouse, we have six double air handling units which allow us to remove evaporated moisture efficiently without losing energy or CO₂. This is an opportunity for us to significantly reduce the energy needed to heat the greenhouse. Peppers prefer a relatively dry environment, so dehumidifying the greenhouse is important."

Wouter Overgaag
Kwekerij Overgaag



LED lighting

We're making our electricity consumption more sustainable. By switching to LEDs, we save over 30% CO₂eq per kilo of product compared to traditional lighting. LED lamps provide more light using the same amount of electricity, so growers need less power. LEDs also emit less heat, which means we don't have to ventilate so much and less energy is lost through open windows.

"Using LED lighting is very important for us because it allows us to produce a kilo of tomatoes with almost half the electricity. In our company, we try to optimize every factor, and we've found that light is often the limiting factor. We therefore chose LEDs with a higher than average light level, so we can use all our resources as efficiently as possible."

Roy van Vliet
Agro Care



Tomato cultivation in the future

How can we grow tomatoes with less fossil fuel and lower energy costs per kilo? That's the central question at Agro Care's research greenhouse in Rilland. This project, called Tomato cultivation in the future, challenges us to push the limits of greenhouse climate control while keeping the plants growing optimally and producing tomatoes. We are developing a semi-closed cultivation strategy for better control and fewer humidity issues. Active air circulation and dehumidification play key roles. The installations are currently being built, and we expect the first results in 2025.

Solar energy

Many growers have installed solar panels on their warehouse roofs or created solar fields to generate their own energy. At our grower Royal Pride in Middenmeer, special integrated solar panels that allow some light to pass through have been installed on the roof of the corridor. This corridor is used for internal transport, sorting, and storage

“We want our cultivation to be climate-neutral by 2040, so we’re constantly researching new methods that use less fossil fuel and reduce energy costs per kilo. We’re continually raising the bar. Through smart technology and our in-depth knowledge of plants, we’re striving to achieve energy-efficient cultivation without compromising on quality. In our test greenhouse, we’re experimenting with new cultivation strategies that require 50% less natural gas and CO₂ input compared to the current cultivation strategy.”

Jorri Hovelink
Agro Care



2.3 Biodiversity

A rich natural environment is essential for a healthy climate and ecosystem. In and around our greenhouses, we're actively boosting this with flower-rich edges, nesting sites for birds and insects, and natural pest control. We already do a lot to promote biodiversity, but we want to go further. Nature in the Netherlands is under pressure, which is precisely why we're making extra efforts to promote restoration and reinforcement. This is not only out of social responsibility, but also to make the greenhouse horticulture sector more sustainable and improve its image. We're also limiting our impact on nature and biodiversity as much as possible. In our high-tech green-houses, we cultivate without stressing the soil, and we prevent pesticides and nutrients from reaching the surrounding environment.

Biodiversity in and around the greenhouse

We're working with the FVO on an innovative project by Glastuinbouw Nederland and WUR. The goal is to gain more insight into how biodiversity around greenhouses can naturally control pests and strengthen biodiversity in the Netherlands. Twenty greenhouse horticulture companies are participating, including four growers from Harvest House. Biodiversity fields and control fields were laid out at these companies in autumn 2024 to conduct field research. From spring 2025, we will carry out the first measurements on land and in water. This will show whether the measures are effective and how they contribute to healthy cultivation and improved biodiversity around the greenhouse.

Trees in the desert

We also take nature and biodiversity into consideration at our growing locations outside the Netherlands. We want to avoid our land and water use having a negative impact on the environment, and we want to help promote a healthy living environment. In Tunisia, grower Agro Care has gone even further. Last year, they started planting a 4-hectare forest (around 3,500 trees) to stimulate local biodiversity and green the landscape.

“The importance of planting trees is multifaceted; we want to beautify the environment, CO₂ storage, green the landscape, and enhance biodiversity. Together with WUR Wageningen Economic Research, we conducted a feasibility study. The project is a collaboration with the Ministry of Agriculture, and we involved local stakeholders and experts. We see this first planting as a pilot to learn what’s possible. Ultimately, we hope to scale up and contribute to combating desertification and other effects of climate change.”

Omre Vellenga
Agro Care



Land sparing

In 2024, Dutch greenhouse horticulture occupied just over 9,000 hectares of land*. This amounts to around 0.2% of total land use in the Netherlands and less than 0.5% of all agricultural land. On this relatively small area, the world's most sustainable products are grown, delivering the highest yield per square metre. In other words, our growers make optimal use of every hectare. Our innovative and efficient cultivation methods maximise productivity per square metre, leaving more space for other uses, such as nature. We call this land sparing.

* Source: CBS Agricultural Census



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A holistic approach

To keep pests and diseases under control, we use an Integrated Pest Management (IPM) approach. This is a complete multi-step approach, including prevention, biological control agents, green agents and, if necessary, the use of synthetic crop protection. The latter is the last option to preserve the crop if the previous solutions don't work. Growers apply such products only in a targeted and, if possible, localized way.

2.4 Plant health: our approach to crop protection

Inside the greenhouse, we create optimal conditions for plant growth and production certainty. Sufficient water, proper nutrition, ideal temperature and humidity all influence plant health. Strong, disease-resistant varieties and strict hygiene practices in the greenhouse form a solid foundation. Even so, every crop faces some level of pressure from pests and disease. Growers therefore monitor the greenhouse conditions very closely. If there's an imbalance, they take action, preferably by using natural predators or biological/green control agents. In some cases, the pest cannot be controlled and a stronger, synthetic pesticide is needed. In such cases, growers always comply with all legal food safety requirements and with PlanetProof standards for the maximum amount of active substance used per hectare.

Ambition

By 2030, we aim to grow 100% green, without synthetic crop protection products, and in a profitable way.

Where do we stand now?

There's increasing pressure from society, government, and customers to reduce the use of synthetic crop protection. In the short term, we need to find viable alternatives. We're working hard to achieve this. At the same time, we're transparent about the areas where suitable alternatives don't yet exist. In the meantime, we're complying with all legal requirements regarding food safety, and with the PlanetProof standards for the maximum amount of active substances used per hectare.

Use under pressure

The use of synthetic crop protection products is strictly regulated in the European Union. Often, the regulations are so strict that products fail to be re-approved (Regulation (EC) 1107/2009), leaving growers with an increasingly limited toolkit to effectively combat pests and diseases. To illustrate; since 2019, not a single new synthetic active substance has been approved in Europe, while nearly 100 substances have been withdrawn.

Biological alternatives often fall short in terms of effectiveness, and the approval process for green products is far too slow. At the same time, public pressure to reduce synthetic use is rising. Many consumers view it as "chemicals on our food", a perception that is amplified by NGOs and influencers. Retailers often add another layer of pressure by imposing extra requirements, that even exceed legal standards, about which products may be used.

In a nutshell; the toolbox is shrinking. Green alternatives are slow to reach the market, customer requirements are becoming stricter, and social pressure is mounting. This makes it harder for growers to keep producing profitably. We recognize that things must change; and we're taking responsibility. We're minimizing the use of synthetic crop protection wherever feasible, without compromising on quality or yield. We're convinced that it's possible to grow resilient, synthetic-free crops, but we still need time to research and innovate.

Our approach

We're tackling this challenge with a 360-degree strategy; after all, there's no simple solution. That's why we are working on several fronts simultaneously. We're investing in innovation and research, cooperating with growers and chain partners, and actively lobbying policymakers. In doing so, we create space for new, sustainable solutions and accelerate the transition toward future-proof cultivation.



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1. Prevention is better than cure

We're constantly researching ways to make plants more resilient and prevent pests. That process starts as early as the seed and the roots; together with seed breeders, we develop strong, resistant varieties, and with supply chain partners, we research improved growing mats to make roots more resilient. We're also looking at keeping pests out of the greenhouse, one solution being installing insect netting in the vents.

"An autonomous cart with a camera helps us scout. It drives through the greenhouse daily, takes photos of the undersides of the leaves, and detects which insects are present, both beneficial and harmful, including the stage of the infestation. The data is visualized in a dashboard and gives us a clear picture of the biological balance in the greenhouse. We can see exactly where we might need to intervene. I'm excited about innovations like this. Data and technology are ultimately more accurate than the human eye."

Thimo van Marrewijk

Rainbow Growers Group



2. Early warning

We're researching and testing new technologies in monitoring and early warning. These scouting solutions support the traditional sticky traps and the grower's own eyes by enabling earlier detection of diseases and pests in the greenhouse, allowing early intervention. They include things such as camera technology, scent sensors, and AI to analyse insect counts.

3. Spraying techniques

We're working on smart spraying techniques that help apply treatments even more precisely. This is badly needed, because the more precisely we spray, the less pesticide we use. Moreover, green products are often less aggressive than traditional ones, so we have to hit the pest exactly, or it won't work. By perfecting the spray head, we expect to get better results. We're also investing in automation through spray robots.

"We all want to grow without synthetic products. That aligns with our vision of sustainable cultivation. Fifteen years ago, the approach was to use natural enemies and spraying. Now, we've made the conscious choice for 100% green cultivation. Sometimes the threat of disease or pests is so severe that we have to resort to a synthetic product. But that doesn't change our ambition; we're still fully committed to sustainable, natural cultivation methods."

Marco Hanemaaijer

Strategic Chain Manager Harvest House



4. Natural pest controls and green agents

All our growers want to cultivate as sustainably as possible and eliminate synthetic products. Diseases and pests are tackled first and foremost with green products and natural predators. Some of our growers go even further and are well on their way to growing without using any synthetic agents at all. Together with suppliers, they've developed a clear strategy. They use green products and natural predators intelligently and at the right moment. The art in this lies in preventing outbreaks by scouting carefully and intervening without delay. This approach keeps pests under control before the plants even show signs of disease. It's working well, but there's always a concern about certain pests for which no strong green product is available, at least not yet.

"In our organic cultivation, everything revolves around healthy soil and natural solutions. It's sometimes astonishing how powerful nature can be. There are beneficial insects everywhere in our greenhouse. Our goal is broad biodiversity and a diverse soil food web. This all helps keep diseases and pests manageable. We also show fellow growers our methods."

Frank de Koning

Tuinbouwbedrijf
Frank de Koning



"We've partially switched to organic growing mats made of coconut fibre. This helps us tackle persistent root problems in our pepper cultivation. Growing on rock wool used to be the standard, but in recent seasons, it caused many issues and yield losses. Now, we're addressing the problem at its source with organic growing material. Organic mats are also much easier to recycle."

Wilbert van den Bosch

Peppers Unlimited



5. Cooperation and knowledge sharing with organic growers

We actively encourage collaboration and knowledge sharing between our organic growers and conventional growers within the co-operative. Our organic growers have years of experience cultivating without synthetic crop protection. This requires a different mindset and growing methods. By literally looking around each other's greenhouses, we learn from one another. It's an inspiring and motivating process that helps all of us take steps towards cultivation without synthetic substances.

"We're taking part in the 100% Green Grown project because we want to find solutions to the ever-shrinking range of crop protection products. This project enables us to invest collectively in finding those answers. In the first season, we learned a lot; we made great progress using green products, but we're not there yet. The costs were high. In the second season, we're focusing on reducing those costs. We're investing in banker plants and a different type of substrate to make our cultivation even more sustainable."

Marc Zuidgeest

Frestia





“We remain fully committed to sustainable, natural growing.”

6. Practical pilot 100% Green Grown

We're participating in the practical pilot 100% Green Grown, an initiative by the FVO. Various fruit and vegetable growers, and specialists in biological crop protection, seed breeding, and cultivation techniques and management are collaborating to achieve a single goal; to cultivate peppers, tomatoes, aubergines, and cucumbers entirely without chemical products, while maintaining a healthy business model, by 2027. What's unique is the cooperation between growers from different sales organisations and suppliers from the horticulture sector, with open mutual knowledge sharing. The growers are motivated to solve the challenge and adopt a different mindset in cultivation.

After the first growing season of the three-year practical pilot, it's clear that growing salads with less chemical input is possible. Intensive scouting, preventive use of biological solutions, and targeted pest control are already making a big difference. Alongside a 70% reduction in active substances per hectare and 56% fewer chemical sprays, 67% fewer different chemical substances have been used. An important caveat is that no two seasons are the same, and conditions such as the weather can vary greatly. Although the initial results are promising, we're not there yet.

The pilot looks beyond the use of green agents. Together with suppliers, we're exploring solutions such as insect netting, banker plants, biodiversity around the greenhouse, organic substrate, and fertilisation schedules. By looking at the entire cultivation system, we're working towards creating resilient plants.



2.5 Water

Water is an important resource for our cultivation. We handle all resources responsibly and efficiently, including water. We prevent water scarcity and limit the emission of substances into the soil and surface water. By doing this, we take responsibility for good water quality, as required by the European Water Framework Directive.

Ambition

By 2027, all Dutch growers will be proven to cultivate using closed water systems, so we prevent waste and emissions.

Where do we stand now?

All growers comply with the law to avoid emissions into surface water. We're aware of our impact on water quality in an area. We take part in various projects to gain insight into what's found in the surrounding ditches and to solve any problems.

The most important tool to safeguard water quality and availability is the closed water system. Our growers collect rainwater all year round and store it in basins, silos, and underground tanks. Through a filtration system and drip irrigation, the water reaches every plant. Any water the plant doesn't use is captured, filtered, and recirculated. As a result, we need a minimal amount of water for cultivation. Moreover, we don't discharge into surface water, so no fertilisers or residues end up in nature.

Flooding

Weather conditions in the Netherlands are becoming increasingly extreme, and heavy rainfall can cause serious water issues. In the Westland region, the Delfland Water Authority is working with growers through the Rainlevelr project to address this. Participating growers voluntarily create space in their rainwater basins or silos before a heavy downpour by discharging water in a controlled manner. This creates extra storage capacity for rainfall, reducing the risk of flooding.

“Thanks to Rainlevelr, we're helping keep our surroundings dry. The water authority lets us know in advance about incoming storms, so we can make room in our basin and reduce the risk of flooding. Thanks to this cooperation with Delfland, of which we are a co-initiator, we really make an impact. The fact that 100 companies are already taking part is fantastic.”

Vincent van der Lans

Lans



Using water responsibly

This doesn't just apply to our Dutch growing sites. Our growers in other countries also use water responsibly. For example, our grower Frestia in Portugal has an extra water basin the size of 48 Olympic swimming pools. They use it to irrigate crops all summer using rainwater collected during the winter.

In Tunisia, grower Agro Care is working on a system to desalinate sea-water so that it can be used for cultivation and avoid the need for fresh water from the surroundings.

“At our site in Portugal, we aim to store as much rainwater as possible in our basin, so we have enough available during the growing season. We've also invested in an ultrafiltration system and high-quality reverse osmosis. This allows us to reuse 100% of our drain water, saving a lot of water and nutrients. Finally, we use a lot of humidity sensors in the crop, which indicate exactly when and how much water the plant needs.”

Wim Zuidgeest

Frestia





2.6 Packaging and transport

We think carefully about how we package our products. They're delicate and deserve proper protection, but we also want to avoid waste and unnecessary materials. Even though the FreshProducePEFCR shows that the environmental impact of packaging is under 1%, and that of packing stations and transport even less, we keep pushing for improvements.

Packaging or no packaging?

Packaging protects our salads from knocks and the elements, helping it stay fresh and last longer. But not every product needs packaging. What can withstand a knock or will be eaten within a short time is left unpackaged, although always in consultation with the customer. For more delicate items, we do use packaging to make sure they stay in top condition. Examples include our snack tomatoes, sweet peppers, and mini cucumbers. We prefer to use packaging only if it contributes to the quality, shelf life, or hygiene of the product.

Ambition

Our goal is to ensure that 100% of our packaging is recyclable by 2030, and 100% of transport packaging is reusable or made of cardboard. This reflects current legislation, such as the EU Packaging and Packaging Waste Regulation (PPWR).

Where do we stand now?

Our transport packaging was already 100% compliant with the requirements of the PPWR in 2024, as it is either reusable or made of cardboard. Much of our own consumer packaging is also fully recyclable, meaning it's either mono-material or easily separable.

Materials

We carefully select packaging materials and compositions. In consultation with our customers, we try to use mono-materials and recycled content wherever possible. Much of our packaging is made from rPET – recycled PET plastic from things like used bottles. This avoids putting new plastic into circulation unnecessarily. We also try to ensure all paper and cardboard we use is FSC or PEFC certified.

The exact composition of packaging depends on the recycling options in the destination country. If something can be properly sorted there, it gets a second life. To help consumers with this, we use clear symbols and disposal instructions on our packaging. Thanks to the clear symbols and disposal instructions on the packaging, separating waste is made easier. For international packaging, we're using material icons until uniform European recycling icons become available.

We use the Life Cycle Assessment (LCA) method to map the environmental impact of each pack. This enables us to make well-founded choices geared to the recycling flows in the sales country. Together with the customer, we look for the most responsible packaging solution.

Packaging under the microscope

From 1 January 2030, a major ban will come into force within the Packaging and Packaging Waste Regulation (PPWR). This European law aims to reduce packaging waste, encourage reuse, and improve recyclability. Packaging must be as light and compact as possible, made from mono-materials, fully recyclable, clearly labelled with recycling instructions and, for logistical purposes, delivered in reusable crates or cardboard boxes. In addition, fruit and vegetables under 1.5 kg may no longer be packed in plastic, unless they're on the exemption list.

The exact impact of the PPWR on our sector is still unclear, but we want to be well prepared. That's why we're continuing to improve and make our packaging more sustainable.



“We’re constantly working to improve our packaging. Can we make it thinner or lighter without compromising the product’s protection and shelf life? Can we integrate the label or make it from the same material to create mono-material packaging that’s easy to recycle? We continue to research and improve.”

Lienemijn Verploeg
Projectmanager Innovation Harvest House



Thinner, lighter and better

We closely follow new market developments and explore innovative, sustainable solutions like edible protective coatings, paper flow packs, and the use of cellulose. Together with knowledge institutes such as KIDV and our supply chain partners, we develop the best possible packaging for all salads. This keeps us connected and ensures we can always give our customers well-informed advice.

Responsible transport

Our salads make their way from the greenhouse through our packing stations to consumers. To transport our products, we use reusable crates and pallets as much as possible. These include crates and pallets made of wood or plastic. After use, the crates are thoroughly cleaned and ready for the next cycle. When empty, they can be folded down to save on transport space.

We work with transport partners to load trucks as efficiently as possible and reduce the number of transport movements. In cooperation with our supply chain partners, we also keep the environmental impact of transport low.



2.7 Reduce food waste

We minimise overproduction by closely matching supply and demand, for which we increasingly rely on data and new technology. We also cut waste streams by working efficiently with partners across the chain, and we aim to make sure the value of all our products is utilized; even the overripe tomatoes or peppers with a funny shape.

After all, nature doesn't always produce to spec. These fresh but slightly irregular products may no longer be fit for retail, but they're packed with flavour. At Food Fellows, we turn our own leftover products into delicious, healthy, high-quality products. At Snijpunt, we cut and process various vegetables, including our own leftover bell peppers.

Food Fellows

At Food Fellows, we create flavourful products from tomatoes and peppers that don't make it to the supermarket shelf. Tomatoes and peppers with an unusual colour, shape or minor blemish are given a new purpose in tasty, 100% natural products.

Our responsibility starts at the very beginning of the supply chain, but we go further in our efforts to reduce food waste. We're a partner of the 'Samen Tegen Voedselverspilling' Foundation (Together Against Food Waste), and we support Caring Doctors, an initiative that connects horticulture and healthcare to promote a sustainable, healthy future.

We keep innovating to process even more leftover products. In 2023, for example, we added a paprika blend to our range, giving oddly shaped or coloured peppers a meaningful destination too.

Snijpunt

At Snijpunt, we cut fresh vegetables to size. These vegetables don't make it to the shelves due to their shape or colour, but they're still top quality. We chop them into pieces, so our customers can use them in meals. We work smartly together across the chain to make this happen. We also repurpose leftover products from the cutting process. For example, we turn broccoli stems into broccoli rice, and pepper shreds are used in Food Fellows' sauces and blends.

"With Food Fellows, we take our responsibility to reduce food waste seriously. By processing leftover produce into tasty blends and sauces, we saved 1.5 million kilos of tomatoes and 341,600 kilos of peppers in 2024."

Walle van Kammen

Food Fellows



"We process 2 million kilos of leftover peppers annually from our own Harvest House growers into cubes or strips."

Additionally, we chop 1.8 million kilos of leftover peppers from other growers every year. We do the same with leftover cucumbers, and we process many more vegetables, such as radishes, pumpkin, and broccoli."

Mark van der Salm

Snijpunt





Healthy people

3

We grow nutritious vegetables that contribute to a healthier, more vibrant society, and a healthier Europe. We take care of our people, both within our company and across the entire supply chain.

3.1 Gezonde leefstijl

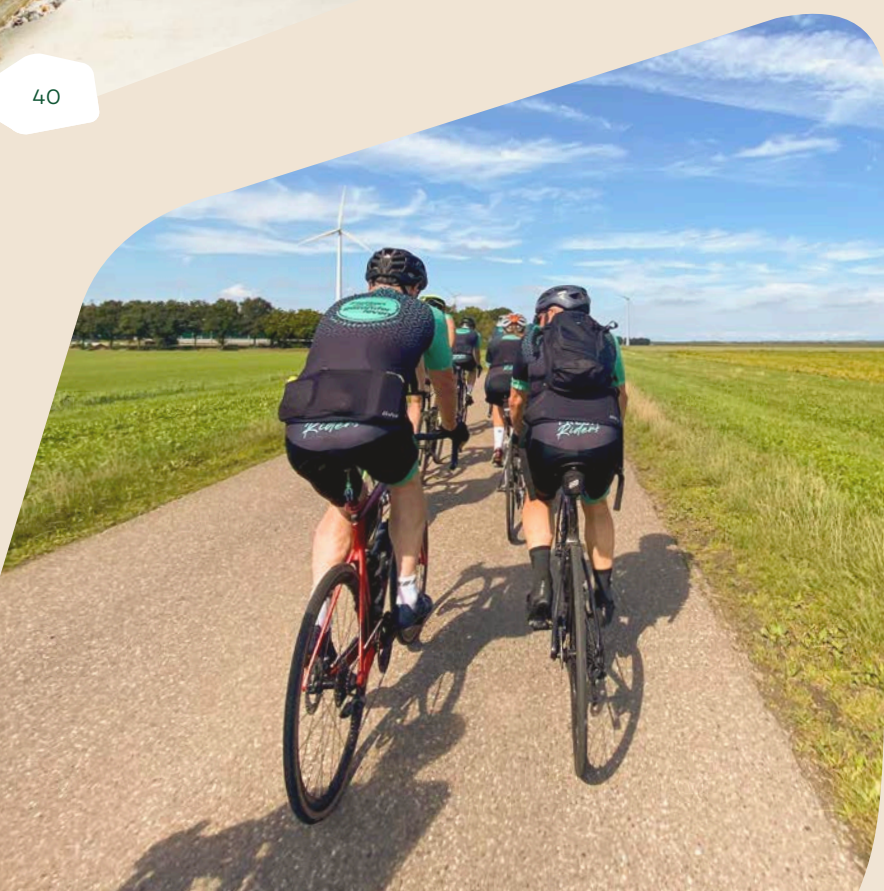
We grow salads that support a healthy lifestyle and balanced diet. Our salads – tomatoes, peppers and cucumbers – are packed with fibre, vitamins and minerals; essential nutrients that help boost immunity and maintain steady energy levels. Research has shown that eating more vegetables significantly reduces the risk of chronic diseases, including heart disease, type 2 diabetes, and certain forms of cancer. That's why we actively encourage people to eat more veg.

Veggieheroes.uk

Veggieheroes.uk is our platform dedicated entirely to tomatoes, peppers and cucumbers. In 2024, we launched it as the go-to source for our retail partners. It's a platform that takes the pressure off, sparks inspiration and provides valuable knowledge and ready-to-use content about our salads. Together, we use it to inform and

encourage consumers to choose salads more often, and boost this category. With smart tips, tasty recipes, and clear explanations of nutritional values, we make vegetables more attractive and accessible. Our retail partners can link directly to the platform or draw inspiration to share the content through their own channels.





3.2 Product security

We prioritize varieties with good flavours and long shelf lives. That's how we deliver produce that are both nutritious and tasty, from the greenhouse to the consumer's plate. Our greenhouses make it possible to supply healthy, affordable salads all year round. We're always asking ourselves; where's the smartest location to grow?

We take into account growing conditions, costs, social conditions, the market, and the environmental impact. Thanks to the FreshProduce-PEFCR, we can precisely assess the footprint of growing in the Netherlands compared to other countries. Sometimes, an international location simply makes more sense, which is why our growers also operate in Portugal, France, Tunisia, and Morocco.

3.3 Community engagement

We support initiatives that align with our mission; healthy people in a healthy world. Above all, we like to back colleagues who put their energy into good and healthy causes. This is how we make an impact together.

Freshriders – cycling together for a healthier life

A great example is the Freshride; a 200 km charity bike ride organised by a group of passionate Harvest House employees and growers. Every part of the chain is represented in the peloton, from staff and growers to partners.

In 2024, the 14th edition of the Freshride raised €67,500, much of which was donated to the Daniël den Hoed Foundation to support further research and development of immunotherapy in the fight against cancer.

3.4 Social responsibility and involvement across the chain

We believe everyone directly connected to Harvest House should work under good conditions. That applies not only to our own people, but also to workers at our cultivation sites, both in the Netherlands and far beyond.

Protecting labour and human rights throughout our supply chain is embedded in internationally recognized standards, such as the ILO conventions (International Labour Organization) and the UN Guiding Principles on Business and Human Rights (UNGPs).

We've created a Harvest House Supplier Code of Conduct, clearly setting out our values, standards, and expectations. It also spells out what our partners can expect from us in return. And if something does go wrong? Our whistleblower policy outlines how serious concerns or violations can be reported.

We take a risk-based approach. That means we pay extra attention to suppliers, regions, and themes where the risk of violations is higher. In those areas, we enforce stricter requirements, but even here in the Netherlands, our standards remain high. Good working conditions are a given for us, everywhere in the chain, regardless of a person's background or employment status. We expect our growers to work with reputable employment agencies.

Good work at NL Jobs

NL Jobs is a Dutch employment agency founded by the four major tomato growers; Agro Care, CombiVliet, Lans and Looye Kwekers. These growers are both shareholders and NL Jobs' largest clients. Every day, more than 3,000 satisfied employees are at work through the organisation. Rita Kostwinder (director NL Jobs): "NL Jobs is about more than just work. We make sure migrant workers feel welcome and valued. That starts with good accommodation, personal guidance, and fair working conditions."

We provide SNF-certified accommodation where employees live with like-minded people, helping them feel connected and socially engaged. By focusing on employee wellbeing, we improve both our industry and the communities around it. We're proud of our role in greenhouse horticulture and other sectors, and we continue to invest in the wellbeing of our people. After all, good work starts with good employers."

Ambition

Working conditions at Harvest House growers and in our chain comply with international human rights conventions.

Where do we stand now?

Our growers and supply chain partners are expected to comply with all applicable social standards and legislation. We verify this through audits based on internationally recognised frameworks. Our Supplier Code of Conduct sets out our values, standards and expectations clearly.

“We don’t just want to be a socially responsible and engaged employer ourselves, we also take responsibility for promoting these principles throughout the entire supply chain. We systematically monitor labour and human rights, while also keeping an eye on broader sustainability challenges. The chain is complex, but by working together and continuously improving, we can build a truly sustainable supply chain.”

Klarie Oosterman

Quality & Sustainability Assurance Specialist Harvest House



Fairtrade tomatoes

We want to help build a better, fairer world, so we’re rightly proud of our growers who are committed to Fairtrade certification in vulnerable regions. It shows our willingness to go the extra mile and give something back to the people and the land. The tomatoes grown there are sold with the Fairtrade label.

This creates jobs, ensures fair wages for both men and women, and opens up access to education, training, and personal development. We support projects that improve the lives of workers, their families, and their communities, such as fair working hours, free transport to and from work, regular doctor’s visits and daily hot meals.

Certifications as a tool

We strive to work in a way that reflects who we are; practical, responsible, and thoughtful. Certifications aren’t a goal in themselves, but they’re a valuable tool that allows our approach to be independently assessed.





3.5 Caring for our colleagues

At Harvest House, we believe everyone should feel comfortable and able to do their job well. Our work culture is best described as connected, professional, and enterprising. Collegiality isn't just a buzzword, it's tangible in our daily work. We support one another, look out for each other, and help each other grow. These values are clearly outlined in our Code of Conduct, which also applies to temporary workers.

Working together on a positive work environment

Our goal is to create a workplace where respect, integrity, and collaboration are core values, and where everyone takes responsibility for contributing to a safe and positive atmosphere. We strive for open, constructive communication between colleagues and managers, where everything is open to discussion. We also offer access to external advisors if needed.

Inclusiveness

We strive for a workplace where everyone feels welcome and free to be themselves. It goes without saying that everyone is given equal opportunities, regardless of age, gender or background. That includes equal pay, which is anchored in our job classification framework.

Clarity around roles

In 2024, we introduced our job classification system. This brings structure and transparency to how roles are defined and relate to each other across the organisation. It was a key request in our 2023 Employee Satisfaction Survey (MTO). With this system, we can have clear, fair, and transparent conversations about pay and career development.

How we promote vitality:

- Fresh, vegetable-rich soup and a well-stocked salad bar every day
- A healthy lunch available in the canteen at low cost, made possible through the WKR scheme
- Free fresh fruit every day
- A weekly supply of healthy salads to take home
- Ergonomic workstations with sit-stand desks; during Vitality Day 2024, all workstations were personally checked with a physiotherapist.
- Access to a coach for informal and approachable conversations
- Flexible home working options to help balance work and personal life, and reduce commuting times
- Collaboration with occupational health services to proactively manage absenteeism

Development at the heart of what we do

We actively encourage personal growth by holding development interviews twice a year with every employee. These focus on ambitions, learning goals, and career progression. In 2024, we introduced a personal training budget of €1,000 for everyone. Beyond mandatory training, we encourage staff to pursue additional courses that help them work smarter and more efficiently.

Inspiring meetings

Through our “Think and Do” programme, we provide inspiration and encourage collaboration among our growers and employees at all levels. Meeting themes range from leadership and AI to consumer trends and chain strategy. Engaged people are an essential component of a healthy organisation, which is why we organise employee meetings to share information and business results and encourage involvement.





Healthy business

4

How do we keep growing at our best while meeting tomorrow's demands? If we want to keep producing healthy salads in the future, we need to earn our 'licence to operate' every single day. We stay on our toes by focusing on innovative growing methods, the entire supply chain, and our role in society. We actively engage in dialogue with the general public and interest groups. That's how we stay ahead of the curve.

4.1 Efforts in the sector

To secure our food production for the future, there are several challenges we need to tackle urgently, as they pose risks to sustainable cultivation. These five key themes are crop protection, climate-neutral growing, biodiversity, water, and labour. Due to their urgency, we often refer to them as "burning platforms." We don't shy away from these challenges; in fact, we're accelerating efforts where we're currently facing hurdles.

These issues don't just affect our organization, they impact the entire sector. All greenhouse vegetable growers and growers in high-tech horticulture are running up against these issues, so we're working together to find solutions. Alongside our growers, the FVO, and other partners in high-tech horticulture, we're pooling our knowledge to tackle these themes head-on.

FVO: leaders of the greenhouse vegetable sector

Together with the greenhouse vegetable sector, we're working hard to find solutions for today's and tomorrow's challenges; climate-neutral growing, responsible crop protection, biodiversity and water, and labour.

The FVO, the Federation of Salads Organisations, brings together the pioneers of the Dutch greenhouse

vegetable sector to tackle these issues head-on. Together with our supply chain partners, we pool knowledge and strength in initiatives that push the sector forward. Growers are at the heart of all this. They put pilots into practice, share their insights, and inspire one another with new solutions. This is how we, as a collective, make a real difference.



Jelte van Kammen

‘We have to take action ourselves’

Jelte van Kammen, CEO of Harvest House, is a unifying force in the sector. “I bring people together and inspire them. I also seem to have a knack for spotting where developments are headed, and I try to convey that to others.”

Why is connection so important in the sector?

“The entire greenhouse cluster is facing the same challenges. so it makes a lot more sense to work together on solutions. We’re more aligned than you might think, and collaboration only brings benefits. Ten years ago, we started cooperating as salad organisations within the FVO (see box) on non-competitive topics. In the last three years, we have made huge strides for the greenhouse vegetable sector.”

What sped up this progress?

“It was partly thanks to a group we started called the Coalition of the Willing. This is a think tank made up of people from across the high-tech horticulture cluster, from vegetable growers to ornamental horticulture, and from breeders to suppliers. We recognised that certain areas really needed to change if we wanted to keep our ‘licence to produce’. Instead of waiting, lobbying, or trying to delay laws, we realized that if we wanted change, we would have to make it happen ourselves. So we set to work together. We identified the real urgent issues, our burning platforms, and focussed our efforts there.

Within the FVO, we aim to find practical solutions. As producers, we’re now taking the lead and, together with the whole cluster, working on real change. One example is with synthetic crop protection. The medicine cabinet was getting empty, but we kept asking politicians for help. That lobbying won’t get us anywhere. We have to change ourselves. If you ask the growers now, they all see it and actually want change.”



How is the FVO working on solutions?

“The FVO’s project-based approach puts the grower at the centre; They’re the ones who can run pilots in real-life conditions. For crop protection, we take a cluster-wide approach, working with suppliers and partners across the chain to come up with solutions. The practical pilots in FVO growers’ greenhouses help us test what really works. And we’re doing the same in areas such as energy, biodiversity, water, and labour. It’s all about working together, and getting things done.”

Harvest House is often at the forefront of innovation. What drives that?

“It comes down to the mindset of our growers. They’re all forward-thinking entrepreneurs, and their drive sets the pace for our organisation. They avoid getting bogged down in talks, they hold a quick debate then move straight into action. On example is HortiFootprint, the forerunner of the FreshProducePEFCR, which was introduced by one of our growers. I really believe we need to measure our environmental impact, which is why we pushed hard to get the first pilots off the ground at Harvest House. Once we had momentum, we shared it more broadly across the sector. The same applies to the True Value project. We don’t wait around, we actively shape the future.”

The true value of salad cultivation

In the FVO’s True Value project, we weigh up the costs and benefits of salad cultivation in terms of climate, biodiversity, and social sustainability. This includes calculating the environmental costs of our sector, identifying innovations that reduce our impact, and mapping the wider public services we provide; balancing the electricity grid, water storage, purification, public health, land use, and so on. Together with expert partners, we convert this data into tangible costs and benefits using a standardised methodology.



You're also committed to telling the broader story of greenhouse horticulture. Why is that necessary?

"We realised we were constantly having to defend ourselves against the dominant sustainability narrative, while in reality, we have so much to offer. Time and again, we're portrayed poorly in the public eye. That's unfair, because what we're achieving is incredible. We play a crucial role in feeding the world. That's why we're working together as a sector to shape a strong, unified narrative that highlights the sustainable story of our food production."

How did you get involved with that?

"In 2022, I got involved in founding Stop the Food Fight, an initiative by organisations aiming to transform the food system and change public perception; not just from within greenhouse horticulture, but from all corners of the sector. A great example is the documentary Paved Paradise, in which biologist Hidde Boersma and filmmaker Karsten de Vreugd explore how we can feed the world while also increasing biodiversity." "Inspired by that film, a new think tank emerged called Recope. It's made up of entrepreneurs of all ages from the greenhouse horticulture sector. They are the future. Together, we thought about how to tell our story better."

What is the message of this new story?

"True sustainability is about more than just a clean planet, it's about a world where both people and nature can thrive. Through innovation, we can achieve more with less, and that gives us the tools to help the planet flourish too. We're the first truly sustainable generation, and we're going to tell that story. You will hear more about it in 2025!"

How do you see your role in all this?

"Harvest House is all about forging connections – connecting people, knowledge and ideas. Not just within our cooperative, but across the entire sector. I see it as my job to get that bigger conversation going and keep it going by driving practical innovation through projects like those of the FVO, and by helping shape a new, inspiring narrative through Recope. In addition, I engage with industry bodies such as Glastuinbouw Nederland and GroentenFruit Huis, and with both national and European policymakers. After all, real change only happens when we work together across the whole value chain, united by a shared vision for the future."

**“True sustainability
is about more than
just a clean planet”**

Paved Paradise

Curious about the story
of Paved Paradise?
Then scan the
QR code:



Partnerships



4.2 Strong cooperative

As a cooperative, we must provide added value for our growers, primarily by organizing the sale of our salads effectively. In addition, we form a strong network of entrepreneurs and can invest jointly in innovation, technology, and knowledge. We also take overarching matters off their hands. We have consolidated support services, such as taking care of certifications.

Together with our growers, we define the long-term vision for our cooperative. We regularly assess whether we are still on the right track and make adjustments where needed. During think tanks, strategic sessions, and the annual inspiration trip, growers and management engage in dialogue. This sharpens our strategy and keeps our focus on the future.

4.3 Continuous innovation

To guarantee enough healthy and affordable food in the future, high-tech greenhouse horticulture is essential. To address this, we grow in an innovative way and continuously seek solutions to produce more efficiently and reduce our environmental impact. Within our cooperative, we tackle innovation together. Because we can invest jointly as a cooperative, we share not only the costs but also the knowledge and successes. From cultivation to logistics, and from labour to crop protection, we're constantly looking for ways to improve and operate more sustainably in every area. In this way, as a network of forward-thinking entrepreneurs, we continue working toward future-proof cultivation.

Within our cooperative, we encourage innovation in various ways. Through our practical Paprika Innovation Working Group (WIP), we develop short-term solutions. At the same time, we focus on the future. We invest in long-term projects, financed through SIG&F subsidies.

“In the Paprika Innovation Working Group (WIP), we discuss with fellow growers the challenges we face in practice. We share knowledge and compare our approaches so we can learn from one another and solve problems together, for example around water treatment, plant health, or crop protection. If there are issues we can't solve collectively, we commission broader research and look for innovations that can be applied in the short term.”

Patrick Grootsoorten

Rainbow Growers Group

AI in the greenhouse

A fantastic example of innovation in the greenhouse is the use of AI. Since 2022, we've been using artificial intelligence to manage our greenhouses even more effectively. Together with Source.ag, we're developing technology that supports our growers in managing climate, irrigation, and plant health. We're already using this technology across a large part of our cultivation area.

AI helps us use water, energy and fertilisers more efficiently. Our crop specialists keep a close eye on the plants using smart apps and make adjustments when needed. Often, a grower knows instinctively what a crop needs. AI backs that up with data and objective insights. This leads to smarter, more efficient cultivation decisions, so growers only use what's really necessary. Moreover, we can achieve more consistent and higher yields in the greenhouse.

“We're making our greenhouses smarter with AI and data. In 2022, Agro Care invested in Source.ag, together with Harvest House, Rainbow Growers, and others. I'm proud that we helped kick-start this development. Our crop specialists are in direct contact with the technicians at Source, so we're building practical tools that connect with practice. Together, we're taking greenhouse horticulture to the next level.”

Kees van Veen

Agro Care and chairman Harvest House





AI in our commerce

We use AI to better align our supply with market demand. A smart tool gives us access to real-time supply forecasts, so we know exactly what's coming and can match it to what the market needs. This helps our commercial teams respond quickly and serve customers more effectively.

We link this data intelligently to our internal systems. In our BI dashboards, we combine external data with our own sales figures. These are structured and analysed in reports. We don't just look back at past successes, we're also developing self-learning systems to make accurate forecasts. This is how our BI and IT teams are building intelligent data systems that help us look ahead and prepare for the future.

"We believe in the power of innovation to help our growers and chain partners move forward. We use technology and data at key points throughout our supply chain. Our growers are already making extensive use of AI in their greenhouses. We're taking things a step further by using real-time harvest data and BI insights to respond to market demand more quickly and accurately. Digitally unlocking forecast data and dashboards enables us to steer the chain more intelligently. And by linking this data with the forecast data and other information from our customers, we're jointly building a supply chain that is efficient, agile and future-proof."

Yvonne Gewrten

Director Strategy and Business Development



4.4 Transparent and reliable

We take pride in our forward-thinking and responsible entrepreneurship, with high-tech cultivation and clear standards. Our growers and partners meet the requirements across the supply chain, and can demonstrate this with the right certifications. The associated administration and quality controls can be demanding, which is why, as a cooperative, we aim to relieve our members of this burden as much as possible. We streamline processes, and supervise and prepare audits meticulously with the various chain partners.

Certification must never become a goal in itself; that's something we remain vigilant about. We critically assess whether a label truly adds value for the grower, the customer and the consumer. We safeguard the balance between transparency and workability, which is why we support the principles behind the European Commission's Green Claims Initiative, which aims to combat greenwashing. The directive requires companies to back up their environmental claims with reliable, scientifically sound data. In doing so, the EU promotes transparency, fairness and trust in sustainability communications.

“We work every day on safeguarding food safety throughout the supply chain. Not only through daily checks in the greenhouse and packing station, but also by closely monitoring legislation and customer requirements. By organising this centrally, we take the administrative burden off our growers and supply chain partners, such as packing stations. This allows them to do what they do best; grow healthy, safe and tasty products.”

David-Jan van Dijk

Manager Quality & Food Safety Harvest House

Our own measurement programme

We advocate fair and reliable policies, and set measurable targets to reduce our environmental impact. To support this with solid data, we developed the PEFCR methodology in collaboration with the glasshouse vegetable sector and Wageningen University. With this FreshProducePEFCR, we make sustainability concrete, measurable and comparable (see Chapter 2.1). It also provides a foundation for the many sustainability labels, initiatives and legislation within the sector.

Control over our data

In 2024, together with the other FVO members, we took the step to become co-owners of GreenlinQdata. On this platform, growers register consumption data of things such as energy, fertilisers, crop protection agents and other elements required for production. It's a valuable tool for standardizing and safeguarding our sustainability data. By participating in GreenlinQdata through the FVO, we as producers retain control over our own data and determine who can access it.

The data entered into the platform can be used as input for the FreshProducePEFCR and for certifications. This allows the entire greenhouse vegetable sector to share responsibility for making our environmental impact more transparent.



Moving forward together in a changing world

Sustainability isn't a project with an end date, it's an ongoing process and an integral part of how we work. This report shows how we're working every day towards more sustainable cultivation, with a clear focus on people, the planet, and entrepreneurship. We measure our impact, act on facts, and share knowledge so we can keep moving forward, day by day.

We're proud of the progress we've made together with our growers and partners, but we're also well aware that the world around us is changing rapidly. Climate change, stricter legislation, geopolitical shifts, and rising social expectations call for agility and decisive action. Today's innovation may be tomorrow's standard, so we have to keep investing in knowledge, technology, and collaboration to reach our goals.

In 2025, we're taking further steps towards future-proof growing. We think it's worth briefly mentioning some topics at this point.

Plant health

We're seeing promising results in our ongoing innovation and research projects aimed at making crop protection more sustainable. To speed up developments in this area, we're teaming up with other producer organisations to establish the Green Growing Expertise Centre. This knowledge centre will focus on three important pillars for green cultivation; speeding up the approval of green crop protection products, testing in real-life growing environments, and developing the knowledge and skills needed to apply new insights in the greenhouse



Understanding water quality

There's still room to improve the quality of the water bodies around our greenhouses, even though we already meet the legal requirements to prevent emissions into surface water. In this respect, we're taking part in various projects to gain better insights and tackle any issues. Together with the FVO, Glastuinbouw Nederland, Versnellers Sierteelt and the regional water authorities, we're developing a targeted Water Quality Action Plan in selected areas. In the Westland region, we're participating in De Transparante Tuinder (The Transparent Horticulturist), a project where growers monitor the surface water quality around their own sites, take improvement measures, and share the results publicly.

Good working conditions

Good working conditions must be guaranteed throughout the entire supply chain for every worker, regardless of background or employment type. To create more transparency about the working conditions of temporary workers, we're collaborating with the FVO, the employment agency association ABU, Versnellers Sierteelt, and Glastuinbouw Nederland on a Fair Employment Code. We're committed to offering greater security for international employees, and improving productivity through robotics and automation.

A powerful sustainability story

Together with Recope, we're creating a strong sustainability narrative with a clear message; we're the first truly sustainable generation. This manifesto was finalised in 2025, and shared with key partners such as GroentenFruit Huis, Rabobank, and Glastuinbouw Nederland to gain broad support. We've already presented it to the public at GreenTech. At the heart of the story is the core belief that we can do more with less through innovation, leaving more space for nature to thrive. That is the unique strength of Dutch greenhouse horticulture.

That is how we'll continue growing healthy salads in a healthy world.

Relationship between key sustainability themes and our approach

	Theme	Our approach	Reference
Environment	Achieving climate objectives Saving energy Greenhouse gas emissions throughout the chain	- Broad support for implementation of policies and measures - FreshProducePEFCR and FPP dashboard - Approach to SBTi target - FVO project Horticulture Tomorrow (climate-neutral cultivation) - Energy-saving cultivation strategies such as Het Nieuwe Telen (New Cultivation - Glastuinbouw Nederland)	Ch.1 Ch.2 Ch.4
	Biodiversity and ecosystems	- FVO project Biodiversity - FVO project True Value, biodiversity theme - Part of certifications such as Global Gap and PlanetProof	Ch. 2.3
	Water quality	- FVO Watercoach project - Water quality action plan (in collaboration with FVO, Glastuinbouw Nederland and water authorities) - Research into water availability - Additional certification such as Global Gap SPRING	Ch. 2.5
	Reducing packaging materials & recycling	Rolling out packaging policy	Ch. 2.6
	Reducing food waste	Incorporating leftover products into Food Fellows and Snijpunt products	Ch. 2.7
	Plant protection products	- FVO project 100% Green Grown - Commitment to innovation and research	Ch. 2.4
	Food security	- Growing in greenhouses and multiple climate zones reduces impact of weather extremes - Year-round supply of products	Ch. 2.3 Ch. 3.2
Social	Own employees		
	Social, safe working environment	- Code of conduct integrity and availability of confidential advisor - Employee satisfaction survey	Ch. 3.3
	Occupational health and safety	- RI&E (Risk Inventory & Evaluation) - Vitality approach, including lunch offerings - Absenteeism policy, in cooperation with Occupational Health & Safety Services	Ch. 3.3
	Good work-life balance	- Homeworking policy - Employee satisfaction survey	Ch. 3.3
	Training and skills development	- Job description - Training budget - Development interviews	Ch. 3.3
	Employees in the value chain		
	Occupational health and safety	- Certifications and systems such as Global Gap, Sedex, Smeta, Fairtrade, BRC, IFS - Own checks and audits where necessary - Code of Conduct	Ch. 3.4
	Social, safe working environment	- Certifications and systems such as Global Gap Grasp, Sedex, Smeta, Fairtrade - Independent hotline - Code of Conduct	Ch. 3.4
	Good working conditions and housing	- Certifications and systems such as Global Gap Grasp, Sedex, Smeta, Fairtrade - Cooperation with employment agencies with ABU or NBBU certification - FVO project Atelier Arbeid (Labour Workshop)	Ch. 3.4 Ch. 4.3
	Consumers and end-users		
	Positive effect on health	- Continued focus on the health benefits of our products, e.g. via Veggieheroes.uk - FVO project True Value health theme	Ch. 3
Governance	Lobbying activities and partnerships	- Participation in branch organisations such as GroentenFruitHuis, Glastuinbouw Nederland and the FVO - Participation in initiatives e.g. Stop the Food Fight, Recope, Samen tegen Voedselverspilling (Together Against Food Waste)	Ch. 1.3 Ch. 4.1
	Future-proof cooperative structure	- Think tanks, inspiration trips and joint strategy sessions of growers and management - Focus on innovations, including the SIG&F programme - Commitment to long-term cooperation with chain partners	Ch. 1.1 Ch. 4

• These themes are derived from our materiality analysis and stakeholder research.

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