



LettUs
GROW

Impact report 2022



Certified



Corporation

Introduction from our co-founder Jack Farmer

2022 was one of LettUs Grow's most exciting years so far. We celebrated finally being awarded our B Corp Certification after a lengthy application process, delivered our most exciting container farm projects to date, and launched our brand new innovation for the horticultural industry - Aeroponic Rolling Benches.

Joining the B Corp community has shown us where we need to make improvements, formalise procedures, or ask for help - we're very proud to be part of a community who want to use business as a force for good. Meanwhile, launching our Aeroponic Rolling Benches is perhaps our most ambitious move to date: being focused on hectare-scale growing operations, which we hope demonstrates our commitment to working with growers to enhance food production efficiency at a meaningful scale, worldwide.

As a company grows, it becomes more important than ever to make sure founding values are deeply embedded into everything they do - and it's been great to see our values manifested as we have taken on more people and more projects. It's been exciting to see the team measuring and improving our company impact in different areas: whether that be projects that are having a positive social impact, technology that reduces environmental impact per kg of fresh produce, or improving the lives of our staff members, community and stakeholders.

I'm truly excited to see what can be achieved in the year ahead, and am continually motivated by our team, partners and our client's efforts to build a better food system. Bring on 2023!

Jack - Chief Scientific Officer



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Section one

Environment

Our products

Aeroponics

In 2022 we revealed exactly what makes LettUs Grow's aeroponics so special: **ultrasonics**.

Not using nozzles in our systems means they are more operationally viable in large-scale, commercial facilities - where the impact of using less resources can be far greater.

We also published our first crop brochure - a collection of around 40 crops we have validated that grow faster in our aeroponic systems than in the equivalent hydroponic setup.

In fact, some crops in this system saw growth rate increases of up to **20-200%**.

Crop development

We believe working beyond leafy greens is crucial to unlock the full potential impact of aeroponics. In 2022 we grew the following plants:

- ✔ Chillies
- ✔ *Nicotiana benthamiana* for biotechnology
- ✔ Apple tree whip propagation in partnership with Bardsley England
- ✔ Willow for biomass in partnership with University of Surrey



Wageningen University

In 2022, we partnered with agricultural and horticultural leaders, Wageningen University. We are collaborating to compare ultrasonic aeroponic and hydroponic irrigation systems in side by side trials. The trials aim to boost the understanding of aeroponics in the available academic literature to encourage innovative agricultural practices in the future.

“It is a core value for us that everything we do and promote is rooted in good science; so it's really gratifying as a UK technology company within the CEA sector to be collaborating with the leading academics in the space. We're pleased to have the opportunity to build the relationships with Dutch horticulture, which we recognise as world-leading & a cornerstone of the industry.”

- Charlie Guy, Chief Executive Officer & co-founder

Launch of Aeroponic Rolling Benches™

In 2022 we launched our most exciting development yet: Aeroponic Rolling Benches.

This innovation is set to bring the power of aeroponics to hectare-scale, commercial agriculture, in a world first for greenhouses.

Growing with aeroponics on this scale could hugely boost the sustainability of vertical farming and greenhouse growing systems.

Our Aeroponic Rolling Benches have been designed to retrofit into existing hydroponic facilities and have shown promising results in the first [comparative trials](#) with Crop Health And Protection and Stockbridge Technology Centre. Aeroponic Rolling Benches offer:

- ☛ Increased yields
- ☛ Less water & fertiliser consumption
- ☛ Growing without pesticides

“

Aeroponic systems improve productivity & reduce water consumption per kg of produce grown. So it made sense for us to apply this in the environment where these enhancements can have the most impact – & that’s in hectare-scale greenhouse production. Aeroponic Rolling Benches allow us to do this without re-designing the farm, so we can bring these benefits to new projects & existing facilities.

- Ben Crowther, Chief Technical Officer

”



DROP & GROW™ lifecycle analysis

Aeroponics is still a novel technology and we are just at the beginning of understanding its potential. This is exciting, but also means that there is little scientific or academic research into the impact of aeroponics.

So, in 2022 we conducted a lifecycle analysis of our aeroponic container farms.

The key findings from the report included:

- ✓ Aeroponic container farm system generates 1.52 kg CO₂eq./kg peashoot using 2021 UK grid electricity.
- ✓ Energy source is critical to reduce most of the environmental impacts of aeroponics.
- ✓ Solar & wind power lowers greenhouse gas emissions of aeroponic container farms by up to 80%.
- ✓ Salads grown in a renewably powered DROP & GROW show lower greenhouse gases than salads imported from most of Europe.

Following on from this, we will conduct lifecycle analysis work for our Aeroponic Rolling Benches in 2023.





Section two

Environment

Our operation

Environment: our operation

In 2022 we took even more steps to make sure our internal operations had minimal impact on the planet - including kicking off our first annual environmental impact assessment with District Eating, aligning to the Science Based Targets Initiative. The findings of this annual audit will form the basis for future impact reports and will be published in 2023.

All aboard the Eurostar

In 2022 staff avoided 15 flights by taking the train. That's 5625 miles of travel and approximately 1.5 tonnes of CO2 saved.*

Waste not

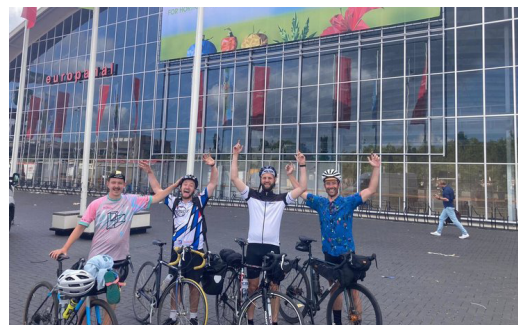
In 2022 6040kg of food waste was collected by GENeco. This displaced 3.7 tonnes of CO2 - enough to power 1 home for a year.**

Team Marketing made a commitment to use only certified organic & 100% natural materials for marketing materials

The big cycle to Amsterdam!

Oscar Davidson, Simon Bellamy, James Perry and Dan Peel cycled to the Greentech event in Amsterdam from London - all in the name of sustainability.

Online calculators suggest that one flight from London to Amsterdam could generate between 99-130kg CO2 per person. So, the team managed to save up to 520kg CO2 from entering the atmosphere. That's the equivalent of charging 63,254 smartphones!***



Supply chain

- ✓ Reusing packaging from inbound deliveries
- ✓ Purchasing recyclable and non-plastic packaging where appropriate
- ✓ Suppliers are assessed on their commitment to responsible, ethical and sustainable goals inline with our commitments
- ✓ Site visits, deliveries and maintenance trips are combined to minimise vehicle miles
- ✓ Materials generated during construction and delivery are sorted and disposed of by local companies who have made sustainable disposal commitments

It's all about asking ourselves, what can we do to make a difference? Sometimes flying internationally is necessary & alternative methods of transport such as cycling aren't always accessible or possible for everyone. But for us it was a great way of trying to keep our carbon footprint down - plus it was great fun! We'll definitely be doing it again next year & we hope we can encourage more people to come along for the ride!

- Oscar Davidson, Business Development Specialist

Section three

Customers & collaborations



Customers & collaborations

In 2022, we set out to push the boundaries of aeroponics - quite literally as well, with our operations expanding into greenhouse sites and installations in Europe.

LettUs Grow's aeroponics was being used across twelve different sites. We delivered container farms to three new locations, with use cases ranging from start-up business to public sector, from social-good to scientific research.

We confirmed a further three container farm deliveries for 2023 and began our first Aeroponic Rolling Bench trials on-site at Stockbridge Technology Centre.

Community projects in Wales and York continue to grow and thrive, whilst we kicked off crop development and research trials with commercial and academic partners. We explored how aeroponics could be used in both the food and energy sectors, whilst continuing to support our existing customers to improve their crop varieties and yields.

 Sites confirmed for 2023



Ro-Gro & G H Dean & Co

Aeroponic container farming can create a sustainable source of food as a standalone system, but it is the unity between the traditional farming operations at G H Dean and the novel technology used by Ro-Gro that make this particular collaborative model so effective.

These include:

Reallocation of land: Hyperproductive container modules allow G H Dean to redistribute less productive land. For example, the grazing areas currently used by sheep will be rewetted and gifted back to nature, allowing the marshland habitat to flourish.

Green energy: Solar panels have already become a key source of green energy for G H Dean and Ro-Gro will look to harness 40% of this energy to power the containers, growing to 90% over the next year.

Water recycling: Container farms alone use 90% less water than traditional farming methods. The water used in the Ro-Gro containers will be harvested from rainwater from the G H Dean site, and then once they have been used for irrigation the nutrient-rich wastewater will be redistributed back into the fields.

Food security: Using controlled environments, the containers will be able to operate throughout the seasons allowing both Ro-Gro customers and G H Dean a perpetual food production system, that will only increase in capacity over time as the business grows.



There is a movement towards creating space for nature. But by releasing that land, we need to find other ways to diversify whilst still doing what we do best – produce more food.

Tim Malpas, CEO of
GH Dean & Co Ltd



**DROP
& GROW**



from **LettUs Grow**

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Section four
Workers



Workers

In 2022 we reviewed our remuneration, benefits schemes and employee reviews, also including staff feedback from our bi-annual employee satisfaction surveys. We also:

- ✔ Launched personal development plans as part of annual reviews
- ✔ Ran company wide inclusivity training with myGwork and social media training
- ✔ Launched brand ambassador project and hosted internal personal branding session



“ I love how the mission & purpose touches everything in the business. It's not just about creating incredible tech to change the food system, every team is trying to make waves in their space.

- India Langley, Food Systems Researcher



The LettUs Grow hive

Continuing the LettUs Lunch monthly potluck tradition



“ Hands down best job I've ever had - very open people & organisation so you feel confident to put forward what you think is right. A general focus on learning & improving goes a long way.

- Jemal Toussaint, R&D grower ”

34%

staff identify as female

compared to tech industry average of 26%

17%

staff identify as mixed race or black

compared to industry average of <15%

36%

female staff in leadership positions

out of 14 staff members

16

new hires in 2022

including 2 placements

9

internal promotions

22

training programmes

taken by staff for personal development or health & safety

Section five

Community



Community

LettUs Grow wants to make big changes to our world and food systems. But equally important to us is making a positive impact on the local community, its people & our industry - whether that be through advocating, donation or supporting staff to get involved in community projects.

In 2022 we:

- ✔ Registered for our food hygiene rating, so we can organise regular donations of our farm's produce to local charities.
- ✔ Worked with LGBTQI+ platform myGwork, getting involved in campaigns & speaking on panels
- ✔ Supported local youth through the Babbasa Equal Opportunity Ambassador programme
- ✔ Did outreach work or events for organisations such as: Hartpury College, University of Bristol & We the Curious

Planting trees for Co-Forest



Charities we supported in 2022:

Caring in Bristol
Mind
Co-Forest
Easton Food Bank



India Langley discussing female leadership in agriculture at AgraMe Dubai.

In 2022 India also joined the AgriFood4NetZero project as a Champion for New Approaches in Production.

Winners of Best Community Initiative 2022

Grow It York won Best Community Initiative at the Vertical Farming Awards. Grow It York, run by Professor Katherine Denby & Research Associate Alana Kluczkowski, is a thriving aeroponic shipping container farm nestled into Spark:York, an outdoor community space that aims to bring positive regeneration to York city centre. This vertical farm uses aeroponics to grow sustainable, fresh produce for the restaurants at Spark:York.

Grow It York is researching how vertical farming can help create positive changes within the food system, whilst benefiting people's health, the environment and economy. They also host guided tours and workshops to engage children in the community.



Section six

Governance & next steps





Governance

In 2022, LettUs Grow was awarded our B Corporation status - this is a certification that scores businesses on their commitment to using business as a force for good.

LettUs Grow scored 99.4 in total, with the best UK score being 160.5. We had greatest room for improvement in the Environment and Community sections, largely because of a lack of data.

Main areas we need more data:

- 🌱 Supply chain good practice
- 🌱 Environmental impact: energy, water, materials
- 🌱 Product certification to standards

Our next steps

- 🌱 Submit an annual impact assessment covering scope 1-3 emissions
- 🌱 Complete Aeroponic Rolling Bench life cycle assessment project
- 🌱 Convert our DROP & GROW life cycle analysis into a customer facing environmental model
- 🌱 Supply chain questionnaires
- 🌱 Launch working groups for all B Corp categories to actively improve scoring in all areas



LettUs Grow has chosen to align to the science based target initiative Net-Zero standard, committing us to targets that aim to meet the goals of the Paris Agreement and limit global warming to 1.5°C.



LettUs Grow are signatories to the Tech Zero voluntary framework, committing us to annually measure and publish all scope 1, 2, and 3 greenhouse gas emissions. Individual company plans should aim to halve emissions by 2030 across all scopes.



Thank you for reading our 2022 Annual Impact Report

To stay up to date with our progress over 2023 on sustainability matters and beyond, make sure you [sign-up to our mailing list](#).