



# 2023 ESG Report



# Sustainably enriching all protected growers

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In this second annual ESG (Environmental, Social, and Governance) report, CO2 GRO Inc. (CO2 GRO) ESG Chair Rose Marie Gage, the ESG Committee, and CEO John Archibald, share key assessments, forecasts, and updates on the company's role in building a better world for everyone.





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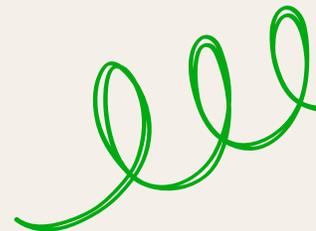
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All figures in US\$ unless otherwise stated



# About CO2 GRO Inc.



**We are a Canadian sustainable Precision Ag Technology company.**

Our target market is the 700 billion square feet of global protected agriculture (“protected ag”) facilities (vegetable and fruit).

Protected ag capacity represents about 77% of all protected grow facilities globally.

**CO2 Delivery Solutions™** technology adds up to 30% more plant production. Ninety-nine percent of global protected ag facilities cannot supplement CO<sub>2</sub>.

If all of protected ag facilities used our technology, **it would provide an additional 100 million tonnes per year to global food supplies, which represents enough to feed 500 million people.**

For the 1% of protected ag that uses CO<sub>2</sub> gas, we can match their enriched yields by up to 95% less CO<sub>2</sub> gas than they do.

Our technology lowers CO<sub>2</sub> input costs, overall carbon footprint, decreases worker health and safety risks from gassing, and creates potential for carbon credit recognition.

Additionally, our technology provides natural **Pathogen Perimeter Protection™** which traditional CO<sub>2</sub> gassing does not.

Our mist based technology works in all climate conditions, geographies and facilities.

Use of our **CO2 Delivery Solutions™** can sharply increase protected grower profits **from their existing facilities**, cutting the need to build an additional 200 billion square feet which at \$20 per square foot and avoiding spending \$4 trillion in infrastructure alone.

In an inflationary environment, where food prices are escalating, our CO<sub>2</sub> Delivery Solutions™ technology provides added benefit to the entire supply chain and supports national food security.

For producers who apply our CO<sub>2</sub> Delivery Solutions technology™, they can obtain enhanced yields (up to 30%) and where using CO<sub>2</sub> gassing technology, they can experience a reduction of up to 95% CO<sub>2</sub> gas use.

We operate in 15 countries with international partners primarily focused on regions 40 degrees north and south of the equator.



# Our CEO's message



CO2 GRO's mission is to accelerate the growth and value of all plants grown in protected facilities naturally, safely, economically, by using our patented advanced CO2 Delivery Solutions™ technology.

We wish to empower all protected ag growers to meet growing global food demand and support local food production, minimizing transportation and food waste.

Our sustainability efforts are transparent to all protected growers that use or could use our CO2 Delivery Solutions™ to benefit themselves and society.

Installing our CO2 Delivery Solutions™ technology will benefit People, Planet and Prosperity (growers, communities, shareholders and the organization).

Our Sustainability Goals continue to be:

**Protect:** We focus on impact to individuals, focusing on zero tolerance for personal safety incidents (our valued team and our stakeholders)

**Produce:** We support responsible sourcing, packaging and production efficiency targets focused on climate resiliency, including reductions in carbon emissions, water use, and food waste.

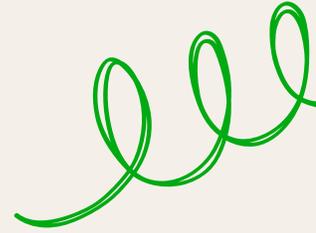
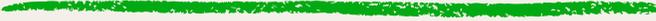
**Provide:** Commitment for providing value to the global protected agriculture communities and those they serve.

**People:** Continue to increase board director, management and staff diversity, equity and inclusion while also ensuring thriving partnerships and stakeholder relationships, including to our shareholders.

**Planet:** We desire clear and measurable reduction targets for CO2 GRO's operational footprint while enhancing our customers' agricultural footprint per additional unit of yield, including reducing water and active ingredient pesticides used to grow produce.

John Archibald  
CEO, CO2 GRO Inc.

# Our second annual ESG Report



We continue to follow the Global Reporting Initiative's (GRI) Reporting Principles for defining report content and report quality.

We have made a number of assumptions and provide transparency in our second annual ESG Report to share our journey implementing ESG principles for our business, stakeholders, shareholders, including our successes, failures, challenges, and methods of overcoming them.

Over the next year, we aim to build upon our performance and measurement frameworks, and to set 2024 reporting baselines to better measure our ESG progress with verifiable data.

This report continues to be reviewed and approved by CO2 GRO's Board. We view our ESG approach as a never ending journey as ESG accounting and frameworks continue to evolve and CO2 GRO is committed to evolving with them.

## Living our values

We are committed to integrating ESG matters across our organization and into our short and long term strategic decisions.

We believe that in doing the right thing (People, Planet, and Prosperity), we will reinforce our business strengths by creating long term enterprise value and positively impacting those we work with.

Sustainability initiatives have been integrated into our strategy since our inception. We are committed to doing our part to help reduce our grower customers' GHG emissions' intensity as well as our own.

# ...contd.



## ESG Sustainability Standards

We are committed to providing our shareholders, grower customers, team members and the communities in which we operate by providing enhanced grower profitability and margins through decreased CO<sub>2</sub> use (where gassing) and garnering greater yields. Further, we operate safely and efficiently while protecting our shared environments.

Our commitment to sustainability is underpinned by our values: Safety, Integrity, Community, and Respect, which shape every aspect of our organization – from our Board of Directors, to Sales, to Research & Development / Innovation, and to our partners and stakeholders.

The front running global body as of early 2023 to set global ESG rules is the International Sustainability Standards Board or "ISSB".

This is the combination of the Task Force on Climate-related Financial Disclosures (TCFD) and the International Financial Reporting Standards ("IFRS"). The 2022 reporting frameworks also included the Global Reporting Initiative (GRI) Standards, the Ten Principles of the United Nations Global Compact (UNGC) and the Sustainability Accounting Standards Board (SASB).

## EU Regulations Most Advanced

The Council of the European Union (EU) formally passed the Corporate Sustainability Reporting Directive (CSRD) on November 28, 2022. The Directive will be published in the Official Journal of the EU sometime in 2023.

This proposed adoption marks a big step in the improvement and expansion of the EU's corporate sustainability reporting.



# Our ESG Committee

**Rose Marie Gage** – Chair of ESG,  
Independent Director

**Mike Boyd** – Chair of the Board,  
Independent Director

**Sam Kanes** – Director

The Chair of our ESG Committee is Rose Marie Gage. She oversees our ESG report outlining our strategy, progress, and plans to deliver on our long term sustainability/ESG goals for our customers, consumers, team, shareholders and other stakeholders, and the planet.

She was awarded the 2021 Woman of Inspiration Integrity Award by the Universal Women's Network and has other awards and recognitions to support her leadership in our ESG efforts.

In 2022 she obtained the Competent Boards' Sustainable Boards Environmental, Social & Governance Accreditation (GCB.D), furthering the Board's knowledge of current ESG best practices and risks.

We are holding ourselves accountable to the highest standards of governance, sustainability and ethical business practices.

The ESG topics covered in our 2023 Report are a key component of our Board of Directors' and Management's evaluation of risks and opportunities, long-term performance potential and corporate value creation.

Our Board has overall responsibility for stewardship of the Company, which includes strategy and enterprise risk oversight including those related to ESG matters.



# 2023 Societal Benefits Using CO<sub>2</sub> Delivery Solutions™

Our precision ag tech is the first revolutionary improvement delivering CO<sub>2</sub> to plants in 50 years. If CO<sub>2</sub> GRO could retrofit all of the now 700 billion square feet of global protected ag facilities, it could add \$313 billion per year of sustainable value to society of which approximately \$250 billion per year would be pre-tax profit.

That global average pre-tax profit would pay back our new 2023 estimated selling price of US \$700 billion or \$1 per square foot in less than three years.

## Assumptions

### For non-CO<sub>2</sub> gassing protected ag

1) \$300 billion per year additional farm gate revenue on \$1.3 trillion per year 2023 protected ag revenue. Based on the existing 700 billion square feet of 2023 protected ag facilities achieving a 25% yield + value increase with our tech.

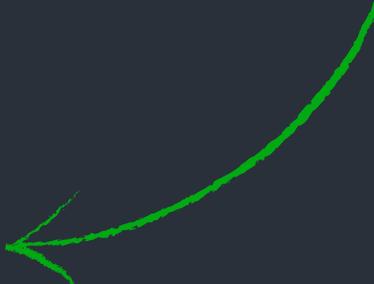
### For CO<sub>2</sub> gassing greenhouses

1) \$1 billion per year more revenue achieved at venting greenhouses gassing CO<sub>2</sub> for up to 10% greater plant production (we assume 5%). Their required venting cuts into optimal production potential as their CO<sub>2</sub> concentrations drop while venting.

2) \$12 billion per year for CO<sub>2</sub> gas supply savings for CO<sub>2</sub> dosing greenhouses (10 billion square feet 2023 est.). We use up to 95% less CO<sub>2</sub> for the same yield, average cost \$500/CO<sub>2</sub> tonne.

3) \$2 billion per year CO<sub>2</sub> emissions tax savings: 19 million CO<sub>2</sub> tonnes per year saved at CO<sub>2</sub> gassing grow facilities versus emitted at an estimated long term \$90 per tonne carbon credit per tax rate.

# Societal Benefits



## Typical Protected Ag Net Profit Increases

Our most important revenue increase assumption is the additional \$300 billion per year (100 million tonnes x \$3000 per tonne) at farm gate.

According to the Center for Disease Control (CDC), we should eat a minimum 2-3 cups of vegetables per day or about 0.5-0.75 kg per day (200 kg per year).

Therefore, the extra 100 million metric tonnes per year our technology can help produce in existing protected ag facilities can feed up to a half a billion people.

## Why an additional 100 million tonnes from 700 billion square feet?

We have been assuming 300 million tonnes of food is grown globally in protected ag that was forecast at 600 billion sq ft by Cuesta Roble in 2019.

Overall, we chose to stay with our 100M million tonne estimate of additional food that could be grown using our technology from 2022 even though we view 2023 global protected ag capacity as having risen 100 billion sq ft since 2019.

There is a huge difference in yields from low-tech facilities versus yields in controlled high-tech CEA facilities.

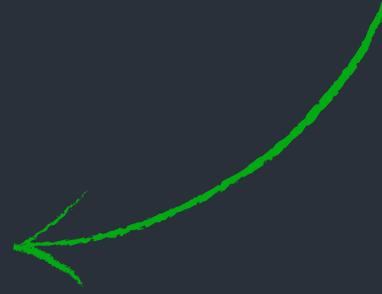
We believe our technology could potentially create 30% yield increases in some of these low-tech facilities located in countries like Mexico that produce less than a third of what a high tech greenhouse in the Netherlands produces. In higher tech facilities, our technology could potentially create 10% production increases.

From a Feb 2021 Association Mexicana de Agricultura Protegia (AMHPAC) Protected Ag report:

“Mexico tomato yields may average 127 MT/HA. In the high tech greenhouses, yield above 600 MT are not uncommon. Same applies to bell pepper and cucumbers, where yields just below 300 MT can be reached compared to the averages mentioned of 127 MT/HA.

Mexico’s vegetable protected production agglomerates 29,026 ha of mostly shade houses and greenhouses. Fruits are almost entirely grown in Macro Tunnels (berries) and shade houses (apples).”

# Societal Benefits



AMHPAC's close to 400 members represent 90% of Mexico's vegetable and fruit exports. We have Trials with two AMHPAC members to date. We are also an AMHPAC member.

## **Our operating costs**

Our technology's operating costs are about 10%-20% of the extra plant production and revenue generated, leading to higher profits for growers.

## **A protected grower's additional variable costs**

To grow up to 30% more yield, there is a similar 10%-20% cost increase for the nutrients required to feed larger, faster growing crops, more harvest labor is needed, as are more trucks to deliver the additional yield our technology helps produce.

## **Pre-tax profit**

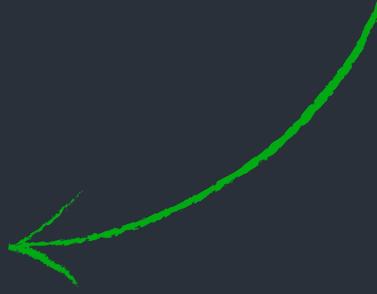
We estimate about \$250 billion per yr of net pre-tax profit from the \$313 billion per year (assumptions listed on page 9).

## **Inflation**

Rising input costs have led to shrinking margins for growers. Our technology helps growers increase production with minimal additional operating costs. We therefore reduce their overall cost base per unit of yield, resulting in increased margins.



# Societal Benefits



## Avoided societal cost of not building 200 billion more square feet

Implementing our technology into existing protected ag facilities would avoid society having to build another 200 billion square feet to grow another 100 million metric tonnes per yr of fresh produce. That will save:

- \$4 trillion of capital at \$20 per square foot.
- Having to use land for these facilities and the globe's limited glass, steel, aluminum, plastic and concrete resources and related shipping/transportation.
- Likely 100 million tonnes of additional CO<sub>2</sub> emissions avoided to manufacture all the additional protected ag facility inputs, components and shipments thereof.
- Protected ag facility construction labour that can be redeployed for other societal needs.

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The details of global protected ag capacity mix varies with G20 countries having higher tech CEA facilities while hot, dry countries like Mexico, Central America, Spain, Morocco and the Middle East having mostly lower tech non-CO<sub>2</sub> gassing grow facilities.

We have Trials in all these geographies.

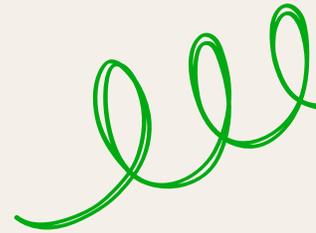
## Rationale for \$20 per square foot 2023 replacement cost

Most of the globe's protected grow facilities are low-tech in dry, hot countries that are not sealed environments. They are typically no to low tech hoop houses, poly-grow tunnels, shade houses and other non-sealed, non-glass, low cost overhead structures, as referenced by Mexico's AMHPAC.

2023 greenhouse manufacturer costs are ranging from as low as \$5 per square feet for open air netting structures in third world countries, to \$20 per square feet for various open ended hoop houses and poly-tunnels, \$30-\$40 per square feet for heavier structured shade houses to \$70-\$80 per square feet for high tech Controlled Environment Agriculture (CEA) facilities and over \$100 per square feet for new CEA licensed Cannabis greenhouses and vertical facilities.

For example, Aurora Cannabis Inc. spent C\$250 million in 2017-2018 to build Aurora Sky, a high-tech 1.7 million square foot CEA Cannabis greenhouse in Alberta.

# Our 2022 internal progress



We achieved the following from our increasingly rich 2019–2023 YTD sales and technology trial (“Trial”) data including:

1) Understanding the wider range of values beyond production improvements that customers obtain using our technology such as for peppers, cucumbers cherry tomatoes, roses and plant liners (young plants).

2) Understanding how to optimize our aqueous CO<sub>2</sub> misting for the key grow variables of sunlight, temperature, and humidity. These variables can fluctuate wildly daily, in many low tech grow facilities.

3) Refining our technology to further optimize plant production and reduce pathogens of concern for growers, maximizing operating cost efficiencies and discovering other benefits that our technology provides.

4) Filed for further global PCT patents based on our research and increasingly rich data from all of our Trials and commercial sales.

As 2022 progressed, we received greater non-CO<sub>2</sub> gassing protected grower interest in North, Central and South America as well as in the EU, Africa, Asia and the Middle East.



# Internal progress



## **Carbon Credits for CO<sub>2</sub> Gassing Greenhouses to Switch**

Our CO<sub>2</sub> Delivery Solutions™ is also attracting some CO<sub>2</sub> gassing greenhouse owners that are paying far more for delivered CO<sub>2</sub> in 2023 and/or their fossil fuels to make CO<sub>2</sub>. They wish to assess the economics of buying our technology to sharply cut their higher cost of CO<sub>2</sub> gassing as well as reduce the risk of paying future CO<sub>2</sub> emissions taxes.

We believe CO<sub>2</sub> gassing greenhouses adopting our technology would create highly qualified 2023-2024 carbon credits in the EU, the US and Canada as the CO<sub>2</sub> emission reductions would be permanent.

# UN SDGs

We believe our technology's use will accomplish the following:

**Goal 1** – Increase protected ag revenue and profitability

**Goal 2** – Increase food supply from all existing protected ag facilities

**Goal 3** – Improve the quality and safety of food grown and worker health

**Goal 9** – Reduce new protected ag infrastructure requirements

**Goal 11** – Work in urban vertical protected ag facilities

**Goal 12** – Lead to responsible and sustainable food production

**Goal 13** – Lead up to 95% less CO<sub>2</sub> used than CO<sub>2</sub> gassing greenhouses

**Goal 15** – Increase food production at lower cost and land use

**Goal 17** – Help us operate internationally with local partners



We believe the use of our CO<sub>2</sub> Delivery Solutions™ technology positively addresses these nine of seventeen United Nations SDG goals as follows:



# Ag Tech Competition & Fragmentation

CO2 GRO's patented technology is the only advancement in CO2 enrichment since gassing was introduced over 50 years ago. Ours is a unique technology, is patent protected, and we have no direct competitors.

However, we do compete indirectly for a protected grower's discretionary capital against all other yield improvement technologies that ag tech companies offer.

There are likely over 1,000 ag tech innovation companies globally. We competed against 350 applicants for the AgriTech4Morocco Innovation Challenge that targets science-based solutions in sustainable agriculture and climate action.

We were one of six chosen to present at their Demo Day on July 28, 2022.

Ag Tech companies can range from: organic fertilizers, soil regeneration (biochar, other carbon), biopesticides, nanoparticle delivery technologies, fixing nitrogen, Blockchain, AI products, CRISPR and other seed genetics, robotics, precision bee pollination, sensors, seed breeding, LED lighting, biologics and biostimulants.

Some companies combine several technologies like BeeHero that uses advanced analytics, AI, and low-cost IoT sensors for commercial crop pollination.

Our precision ag technology has two major features – 1) direct production improvements, and 2) micro-pathogen protection.





# Pathogen Perimeter Protection™ (PPP)



In 2019, we verified by scientific measurements that applying intermittent aqueous CO<sub>2</sub> suppresses leaf surface micro-pathogen colonization such as E. coli, powdery mildew and other epithetic pathogens.

Use of our technology also reduces crop damage, losses and waste by limiting micro-pathogens from creating plant damage.

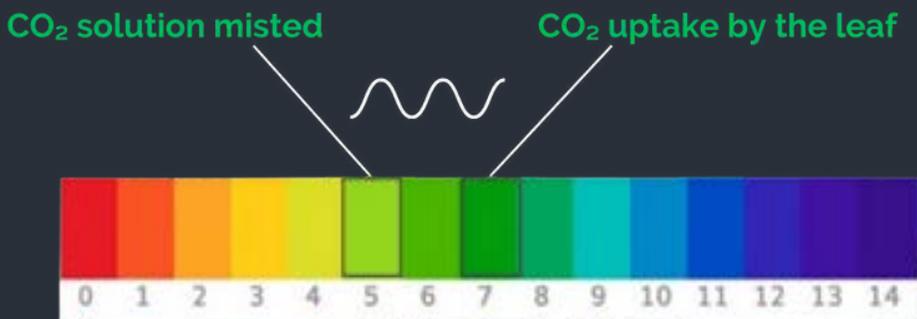
## How it works:

Due to the lower pH of the applied aqueous CO<sub>2</sub> solution which temporarily lowers the leaf surface pH.

As the aqueous CO<sub>2</sub> molecules enter the leaf, the pH rises back to the leaf's neutral pH state.

Micro-pathogen colonization cannot take place in this hostile fluctuating pH environment while there is no effect on the plants.

## PATHOGEN SUPPRESSION



- pH fluctuation on the leaf surface suppresses micro pathogens such as mildew, mold, and bacteria
- CO<sub>2</sub> gassing alone does not provide this protection

We have a pending PPP PCT patent which may be equally as important as are other pending patents. PPP minimizes crop losses for growers having difficulty controlling pathogens.

This PPP feature is natural so it is especially favored by protected organic growers.

# Important Factors to CO2 GRO's Technology Adoption

Protected growers globally should start to accelerate adopting our technology as we get to be perceived as credible and legitimate.

## **Credibility:**

The more growers use our technology and obtain optimized yields, the more they value the results. This adds to our credibility as our results are tangible and real when applied.

Our growing list of successful technology case studies is a testament to our growing credibility.

## **Legitimacy:**

Our innovation requires social acceptance and approval that our technology will benefit society's increased urgency for growing more food, sustainably.

We now have flagship Trials in several countries around the world. As we start selling our technology in Mexico, Colombia, Ecuador, El Salvador, Spain, Japan, Malaysia, the EU, the UK, the Middle East, Africa and elsewhere outside of North America. We are hoping to see a viral global grower awareness and adoption expansion.

## **Excitement:**

Millennials and Gen Zs are extremely interested in sustainable products and companies.

We are reaching out to them via a dedicated Social Media program which started in June 2022.

## **Change:**

The high-tech, protected grower community has only significantly used CO<sub>2</sub> gassing since the 1970's.

It is challenging for them to change their practices of gassing CO<sub>2</sub>.

The pain of sharply higher 2022-2023 natural gas and CO<sub>2</sub> costs is forcing some of these protected ag growers to consider our more sustainable technology option.

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To get to a paradigm shift towards using our aqueous CO<sub>2</sub> delivery technology we will also require consistent government carbon reduction incentivization.

# ... adoption



## Associations and Conferences

In order to penetrate global protected vegetable markets faster, we have joined vegetable associations like AMHPAC Mexico with close to 400 vegetable exporters, and high tech CEA greenhouse associations like JPFA Japan.

We also have increased physical and virtual participation, speaking and exhibiting at protected ag and ag tech trade shows such as Cultivate 22 and MANTS in the US, Greenhouse Canada, Greentech NL and Americas, World Agri-tech San Francisco, Sao Paolo, and London in 2022, as well as GasWorld's CO2 2022 Summit.

We are constantly looking to speak at, exhibit or attend the most relevant conferences to promote our technology.





# Our 2023 Environmental Footprint

We are virtual and do not directly manufacture. We outsource the small amount of direct manufacturing required for our system integration component parts.

Our direct Scope 1 internal carbon footprint is therefore very small outside of travel related CO<sub>2</sub> emissions and component part shipments.

We have yet to verify these using an external third party but have made an initial attempt summarizing our Scope 1 emissions and our Scope 2 carbon footprint profile.

## **Scope 1 Sales, Marketing and Shipment Emissions Details**

CO<sub>2</sub> GRO does not lease any office space, nor operate any manufacturing or processing facilities.

Our Scope 1 direct carbon footprint is comprised of travel by less than ten full-time staff equivalents (ie, our entire board represents 1 FTE), our contracted and consultant sales team and marketing partners.

Our typical weekly Sales, Technology, Communications and Investor Relations meetings are held virtually as are many of our communications with potential customers and other interested parties around the globe.

Apart from required business travel and the Scope 2 manufacturing of the component parts of our CO<sub>2</sub> Delivery Solutions™ systems and transportation thereof for sales and Trials in the 15 countries we operate, CO<sub>2</sub> GRO does not directly emit any CO<sub>2</sub> gas or equivalent from how we conduct our business.

# Environmental Footprint

## Scope 2 Manufacturing Emission Details Unchanged from 2022

We source from a number of North American third-parties to manufacture the components of our CO2 Delivery Solutions™.

These manufacturers use stainless steel, aluminum and plastics as raw materials for the component parts of our CO2 Delivery Solutions™ systems.

Our systems use timers, rotameters, valves, dissolving CO<sub>2</sub> chambers and pumps to activate misting lines and related miscellaneous components.

The plastics are mostly for flexible PVC based misting pipes that we, our customers and/or third-party contractors install to our specification depending on the grower's facility layout.

Most of the components employed in a CO2 Delivery Solutions™ system are very small and relatively light such as plastic misters and pipes.

Their weight and volume (space occupied in storage and shipping) is typically one to two pallets weighing at most, 0.1 tonne per pallet.

This leads to a small carbon footprint associated with sourcing, manufacturing and shipping the components.

We roughly estimate 1 tonne of CO<sub>2</sub> is emitted per two tonnes of components or twenty pallets.





# Net Zero Achieved in 2023

We believe we have now achieved Net Zero as the green house gasses (GHGs) emitted in sourcing, manufacturing and delivering our component parts is now more than offset by the CO<sub>2</sub> misting benefits our CO<sub>2</sub> Delivery Solutions™ for our grower customers as of this report date.

Further, when dealing with non-food production such as horticulture, we see comparable benefits in terms of reduced CO<sub>2</sub> consumption, reduce the need for additional greenhouse facilities/optimize existing facilities, opportunities for local grow, and other affiliated benefits as listed above.

Additionally, CO<sub>2</sub> GRO's technology has brought some societal value to the People, Planet, and Prosperity.

When using our technology, as it pertains to food production, the following benefits exist:

- increases food output, which can lead to higher quality food, lower pesticide use
- delivers faster time to crop maturity (an additional turn per year)
- augments local food output, which can also reduces food waste, and
- reduces transportation costs when food is grown locally



# What We Track in 2023

## We are now tracking:

- CO2 GRO's 2022-2023 CO<sub>2</sub> emissions saved at the greenhouses which previously used CO<sub>2</sub> gassing but now deploy our technology,
- Our CO<sub>2</sub> travel footprint at 5 CO<sub>2</sub> tonnes/yr/car and 115 grams per passenger per km for flights (mostly long haul).
- Additional food grown versus baseline yields
- Avoided the building of new protected grow facilities by growers adopting our technology



### Estimated 2022 Travel and Equipment Shipping Related CO<sub>2</sub> Emissions:

Air: 200,000 km – 30 tonnes  
Car: 200,000 km – 40 tonnes  
Equipment Shipping: 50,000 km – 20 tonnes

We estimate the above 2022 travel and parts shipments led to 90 CO<sub>2</sub> tonnes emitted by our operations.

### Estimated 2023 Travel and Equipment Shipping Related CO<sub>2</sub> Emissions:

With borders recently reopening, we are seeing more customers in-person. This change expects to generate about 175 tonnes of CO<sub>2</sub> from our forecast 2023 travel and equipment shipments:

Air: 500,000 km – 75 tonnes  
Car: 300,000 km – 60 tonnes  
Equipment Shipping: 100,000 km – 40 tonnes

# Tracking in 2023

## 2023 Increased Food Production Run Rate

In Q1 2023, we have 400,000+ square feet of grow area installed with our technology. Additional food grown from this area is at a run rate of about 80 tonnes/year.

## 2023 Avoided New Protected Ag Facilities Run Rate

The above equates to avoided new protected ag facilities of 80,000 sq ft entering 2023.



## CO<sub>2</sub> Delivery Solutions™ vs. CO<sub>2</sub> Gassing:

- A one million square foot gassing greenhouse (or group of greenhouses) uses an average of 2,000 CO<sub>2</sub> tonnes/year.
- The same one million square feet will use ~ 100 CO<sub>2</sub> tonnes/year using our technology
- Greater yield improvements than a CO<sub>2</sub> gassing greenhouse that vents . We should have proof by 2024 of additional production benefits retrofitting several venting CO<sub>2</sub> gassing greenhouses with our technology.

Due to higher natural gas and delivered CO<sub>2</sub> costs, the average economics to switch to our technology is a 24 month payback. This does not include any potential added carbon credit value that customers may receive in the future.

We will collect customers' 2023 yield and CO<sub>2</sub> usage data in their facilities and compare to their previous CO<sub>2</sub> gassing usage (bought and/or created via fossil fuel burning). We will report the CO<sub>2</sub> reduction results in our 2024 ESG Report and state if we were also able to add up to 10% greater yield.



# Tracking in 2023

## Enhanced Employee Health and Safety

Switching to our technology also provides CO<sub>2</sub> gassing greenhouse workers health & safety improvements. The greenhouse atmosphere they work in will no longer need be set at 200%–300% of atmospheric CO<sub>2</sub> levels during daylight photosynthesis working hours.

The only bi-product from our technology is additional oxygen. It is released by the faster growing plants consuming aqueous CO<sub>2</sub> molecules.



## CO<sub>2</sub> Gassing – Human Effects

CO<sub>2</sub> is heavier than air or oxygen so it will “settle” at the floor first, like filling a glass of water.

Too much filling can cause an individual to pass out or even experience a fatality, due to the high concentration of CO<sub>2</sub>.

Individuals can also experience asphyxiation or even suffer from CO<sub>2</sub> poisoning, should the levels of CO<sub>2</sub> be excessively high.

As 100% concentration CO<sub>2</sub> is used, even a small leak in a supply hose or faulty regulator can cause CO<sub>2</sub> levels to quickly rise to the point that the air in the room becomes deadly.

Based on Occupational Safety and Health Association, and National Fire Protection Association regulations, indoor grow rooms as constructed are technically “confined spaces”. As such, they should be monitored for safety purposes according to the appropriate confined space guidelines. As a result of such potential hazards, fire marshals and inspectors have required the monitoring of CO<sub>2</sub>.”

Using our technology eliminates this health & safety risk.

# How Our Technology Operates

Our CO<sub>2</sub> Delivery Solutions™ technology runs under low pressure from overhanging misters. It works in any protected ag facility as well as some sufficiently spaced vertical grow or Controlled Environment Agriculture (CEA) facilities.

Our solutions are designed for maximum canopy coverage with minimum aqueous CO<sub>2</sub> gas losses.



## Typical Commercial Installations

The cucumber, pepper and tomato greenhouses pictured alongside have commercial systems that deliver aqueous CO<sub>2</sub> via overhead misters.

## Our Operating Costs

The vast majority of our operating cost is CO<sub>2</sub> gas supply, energy, and water.





# Environmental Benefits to People, Planet and Prosperity

## Global Agriculture Emissions

From the 2021 FAO study “Of the 16.5 billion tonnes of GHG emissions from global agri-food systems in 2019, 7.2 billion tonnes were within the farm gate” (as pictured alongside):

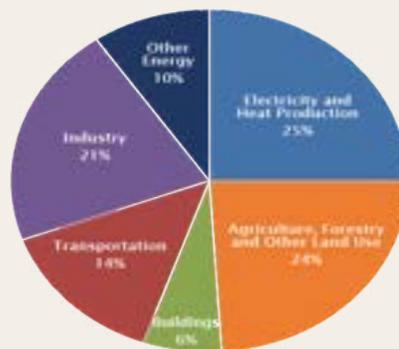
## Climate Change Worsening

2022 climate change effects were more obvious as more droughts (California and Africa), forest fires (California), floodings (Pakistan), heat waves (Southern EU and Africa), and hurricanes (South Florida) led to major regional outdoor crop damage.

Vegetable prices in the United States were up nearly 40% in November 2022 over the previous month, according to the US Labor Department.

From Horti Daily December 13 2022 “It seems that climate change is one of the reasons why. In California, an ongoing drought that studies have shown has been exacerbated by climate change has led to \$3 billion worth of agriculture losses in a state that grows much of the nation’s food.

Global Greenhouse Gas Emissions by Economic Sector



A November 2022 Agrithority report, “In the U.S., more than six of every 10 acres are experiencing drought. In parts of Europe, the story’s much the same with crop loss predictions due to heat and lack of rainfall.”

These outdoor food growth risks support more protected ag facilities demand.

However, new protected ag facilities are not being built for now. 2023 capital is much more scarce, interest rates are much higher and new greenhouse building costs have soared. Also, very few new CEA companies have proven their business plans and new facilities make money.

# Environmental Benefits



## Some Global Support For Sustainable Food

A November 2022 Greenbiz article: "The Food and Agriculture for Sustainable Transformation (FAST) initiative aims to unlock climate finance to decarbonize and increase the resilience of food and agriculture sectors, especially in the world's most vulnerable communities."

AIM for Climate garnered an "early harvest" of \$4 billion in increased investment in climate-smart agriculture and food systems innovation over five years.

AIM for Climate partners are mobilizing this investment to close the global investment gap in climate-smart agriculture and food systems innovation.

Initiative on Climate Action and Nutrition (I-CAN) recognizes the relationship between nutrition and the climate crisis – representing a significant breakdown of siloes between food, agriculture, climate and nutrition groups.

It will work to guide governments, financial institutions and the food industry toward shared goals.

Complementing these multilateral launches, an \$18 trillion coalition of investors led by Jeremy Collier's FAIRR Initiative successfully mobilized the UN Food and Agriculture Organization (FAO) to establish a climate roadmap for the food and agriculture sector by next year's 2024 COP in the UAE.

As you can see from the above, there is great momentum building for sustainability and its effect on the environment, climate change, food, and society. CO2 GRO is perfectly positioned to make positive impacts on protected grow applications.





# CO<sub>2</sub> Delivery Solutions™ Value to Society

Our technology's societal benefits are:

- Increasing locally grown food supply, food security and quality,
- Reducing GHG emissions by shortening supply chains, minimizing grower food waste, reduced in transit emissions, and lower methane emissions from landfill.
- Dramatically cutting CO<sub>2</sub> emissions at venting greenhouses using CO<sub>2</sub> gassing, and
- Avoiding the societal requirement to build \$4 trillion of protected grow facilities to grow an additional 100 million tonnes of fresh produce annually.

The use of our technology empowers a locally grown food supply that in turn would reduce the need for long haul food shipments and minimize food spoiled and diverted to landfills.



# Value to Society



## Global Protected Area

Approximately 77% or 700 billion sq ft of the globe's protected grow facilities are for agriculture as of 2023.

The other 23% is split equally between floriculture and "all other types".

## Floriculture: 100 billion Sq Ft

Newstrail (Sept 2022) estimated: "the floriculture market is projected to soar to a valuation of about 80.5 billion USD by 2029, rising at a CAGR of about 6.7% from 2022 to 2029. The recent explosion in the popularity results from edible flowers, which will significantly expand the floriculture market."

We could not find a global floriculture protected facility capacity estimate. Therefore, so we kept it at 100 billion sq. ft. as estimated in 2022.

The global floriculture marketplace is dominated by the Netherlands, Colombia, and Ecuador. We have three rose Trials in Colombia and Ecuador.

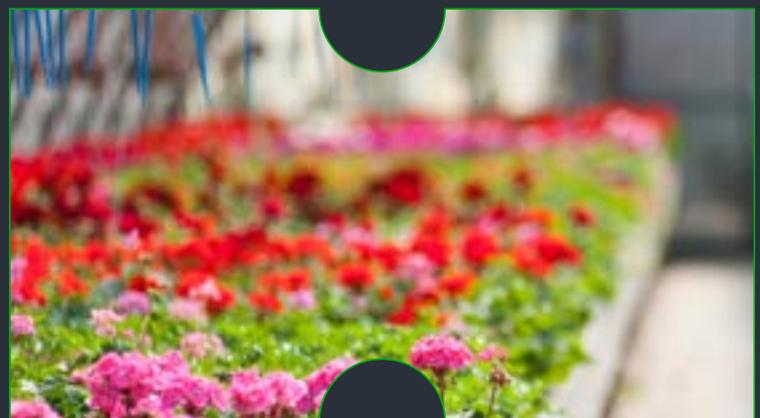
## All Other: 100 billion Sq Ft

We also maintained 100 billion sq ft for All Other protected facilities globally for 2023 as there was not a comparable independent capacity estimate found.

Other includes medical plants, citrus and tree seedlings, ground cover, and other non-food plants grown in protected ag facilities.

## Our Floriculture & Specialty Flower Trials

In our Inaugural 2022 ESG Report, we indicated reporting on our ongoing Floriculture and Other Trial progress.



# Value to Society



**Three Rose Trials:** Two Trials in Colombia and one in Ecuador.

We issued a press release for interim Colombia rose trial results in mid-2022.

They showed 8% more roses grown plus a 21% increase in the highest grade. highest value roses that are over 55 centimetres long with 6 centimetre plus wide flower buds.

This Colombia rose greenhouse complex is nine million sq. ft.

**One Multi-flower Liner/Plug Trial:** Interim Trial results showed a 67% drop to 10% of plug spoilage versus a typical 30%.

Our customer is also observing stronger rooting and bushier leaves versus their control plants.

**Four Cannabis Plant Trials:** We have had four trials located around the world. Currently, the Cannabis sector is rationalizing itself and we are focusing on food-based opportunities.



# Global Protected Ag: 700 billion Sq Ft



In 2019, Cuesta Roble estimated protected ag capacity of 600 billion sq. ft (vegetables and fruits). As of 2023, it is now ~ 700 billion sq. ft. We have not found another updated comparable estimate to date and Cuesta Roble has not updated.

Protected ag is “any protected ag under cover” from no tech (i.e. netting and shade structures) to high tech CEA vertical grow facilities. The vast majority of global grow facilities are low cost, low tech facilities and structures (in light green).

## High Tech Protected Ag

Cuesta Roble also estimated in 2019 that only 8.3% or 50 billion sq. ft of protected ag structures were greenhouses.

We now estimate it is approximately 60 billion sq. ft as high tech CEA and vertical grow companies received most of the \$7 billion raised for ag tech in the US during 2019–2021.

## 9%–11% CAGR Forecast Gone

In 2020, the global vegetable protected ag market was roaring. It was forecast to grow at a 9%+ CAGR rate by Grand View Research through 2025 and an 11% CAGR rate was forecast by ReportLinker in their December 2021 “Global Greenhouse Market”.

## Dim 2023 Forecast for New Protected Ag

Production of fresh produce in local new CEA facilities did become a \$100 billion-plus industry and was forecast to rise by 19%/yr to \$172 billion (source: Tecogen CEO).

That forecast collapsed by mid-2022 for now as the new CEA facilities built have yet to be profitable, and new investment has dried up.

Highly capital intensive CEA facilities do use less water, no pesticides, the latest innovative and efficient technologies to provide the highest quality produce for nearby consumers.

However, consumers are reluctant to pay a premium for the fresher food they grow.

Also, CEA companies have yet to move beyond growing organic herbs, micro-greens and lettuce to date with some early progress growing strawberries.

According to Hortidaily Dec 6, 2022 “All of us in the industry have seen an end to easy money based on promises and much more focus on a viable business model and path to profitability,” as per Rick Vanzura, CEO of Freight Farms.

# Global Protected Ag



As of 2023, these growth forecasts proved far too optimistic due to soaring 2022 inflation and interest rates.

Hortidaily article November 9, 2022 titled 'Vertical farms must trim costs to achieve profitability':

- "In recent years, investors have put billions of dollars into indoor vertical farming, a subsector of CEA, to produce and distribute food closer to urban consumers.
- However, cash flow has been impaired by high upfront investment and operational costs, namely labor and huge energy expenses, coupled with the inability to capture premium pricing.
- Weak cash flow has been a significant impediment in attracting traditional types of financing to vertical farms, thus forcing them to rely on venture and private capital funding and
- Moreover, industry consolidation appears to be the ultimate outcome."

From Urban Ag in mid-2022 "Some forget that regardless of the technology used, these businesses are still farms.

Farms that must operate and compete in a market with notoriously low profit margins and cut-throat competition.

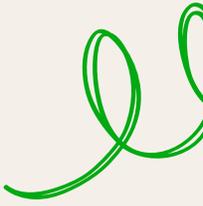
Operational excellence and a conservative fiscal focus are not necessarily issues that can be solved by technology."

From Carboncredits.com Dec 17, 2022 "There has been a near complete collapse of new high tech vertical builds now as well as high tech CEA facilities. It now costs 20%+ more to build one in 2023 versus a year ago, while the cost of capital is rising sharply. Existing facilities are barely breaking even."

**When economic conditions tighten and the access to capital becomes scarce, our technology empowers the grower to be able to optimize their existing facilities and food production yield up to 30 percent.**



# Global Protected Ag



## Protected Ag Locations

About 90% of the world's population lives in hot climates between 40 degrees latitude North and 40 degrees latitude South (our estimate).

This is also where well over 90% of the planet's food is grown to feed local needs and provide food exports to cold climate countries.

Most of their protected ag facilities are unsealed and low-tech as in Mexico. They would need to vent almost continuously if they were sealed.

They therefore have never been able to economically benefit from CO<sub>2</sub> gassing.

As shown, they also have much lower food production per square foot as most of their grow facilities do not control temperature, humidity and lighting. Their low yields get more than offset by much lower labor and building costs, free heat and sunlight.

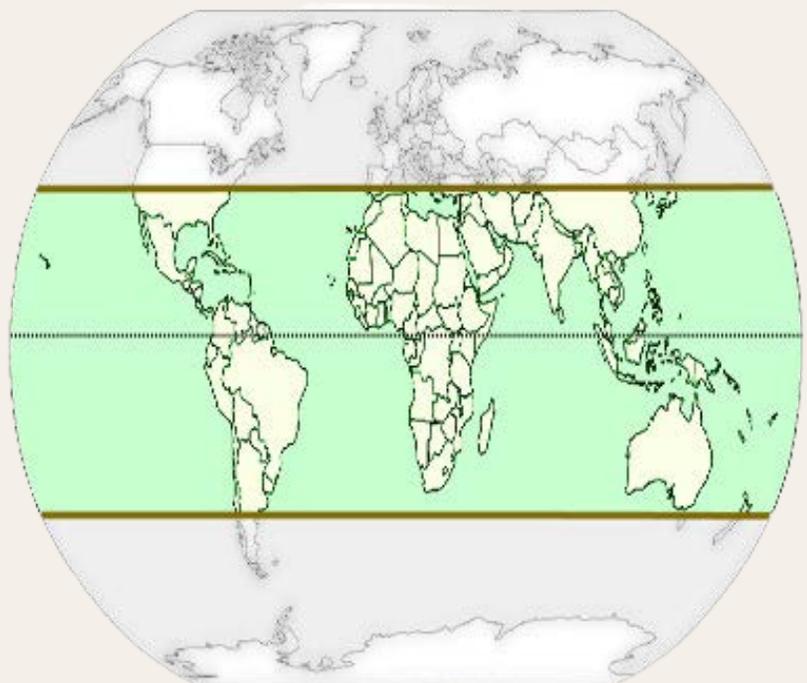
**Countries such as Spain, Morocco and Mexico are currently gaining market share exporting to high cost EU and North American countries with expensive high tech CEA greenhouse owners.**

## Location of Greenhouses Gassing CO<sub>2</sub>

High-tech CEA glass and sealed greenhouses using CO<sub>2</sub> gassing are mostly located in cold winter and hot summer countries such as the Netherlands (NL), Northern EU countries, the UK, Canada, and Northern US. All are north of 40 degrees latitude where most of the globe's greenhouses gassing CO<sub>2</sub> are located.

They are typically high cost, glass based, to obtain consistent growing conditions (CEA) for optimized yields.

Canada's venting greenhouses are based mostly on Netherlands venting greenhouse technology.

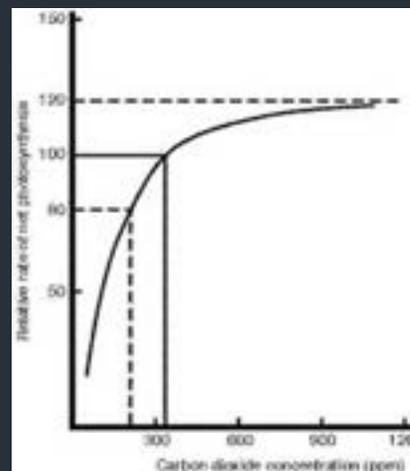


# How to Achieve Up To 95% CO<sub>2</sub> Gas Savings for Venting Greenhouses

Our technology is much more efficient than CO<sub>2</sub> gassing greenhouses that vent due to:

- CO<sub>2</sub> gassing growers must fill their entire grow area atmosphere to reach desired CO<sub>2</sub> levels for most of the plant's daily grow cycle while aqueous CO<sub>2</sub> misting is applied only to leaf surfaces via gravity from overhead misters for minutes per day.
- 100% of our dissolved CO<sub>2</sub> molecules are available to plant leaves while at high 1500 PPM CO<sub>2</sub> gassing levels, only 1.5 molecules of air per thousand are available – and only to the underside of plant leaves where most of their stoma (less than 1% are on the leaf surface area) are located.

## CO<sub>2</sub> and photosynthesis

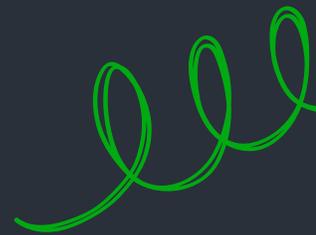


This chart illustrates the yield production sensitivity at varying atmospheric CO<sub>2</sub> levels in CO<sub>2</sub> gassing greenhouses. When they vent, their CO<sub>2</sub> levels fall rapidly back to 400 PPM or below.

We have seen greenhouses burn fossil fuels during summer venting solely to attempt to maintain CO<sub>2</sub> levels slightly above atmospheric while venting.

Any CO<sub>2</sub> level drop below 300 PPM will cause plants to dramatically shut down growing as the chart shows.

# CO<sub>2</sub> Gas Savings



According to a 2019 CO<sub>2</sub> usage study in greenhouses by Canada's Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA):

- "Ventilation during the day can raise the CO<sub>2</sub> levels closer to ambient but never back to ambient so supplementation of CO<sub>2</sub> is seen as the only method to overcome this deficiency."
- "As a rule of thumb, a drop in carbon dioxide levels below ambient has a stronger effect than supplementation above ambient"

This is why some venting greenhouses burn fossil fuels in the summer not for heat but for creating CO<sub>2</sub>. We are not aware of a greenhouse achieving CO<sub>2</sub> levels of 600 PPM or more during venting.

We focus on these venting horizontal greenhouses that generally lose up to 90% of their CO<sub>2</sub> gassed (Yoshinaga et al 2000 re CO<sub>2</sub> use efficiency).

Ontario's OMAFRA estimated "An average value for infiltration in a glass house would be one air change per hour. To compensate for this dilution, approximately 0.37 kg CO<sub>2</sub>/100 m<sup>2</sup> must be added to maintain the desired level of 1,300 ppm CO<sub>2</sub>."

This natural CO<sub>2</sub> gas loss in Ontario greenhouses is continuous without any venting. This is due to the constant air exchange needed to maintain a homogeneous environment.

## Up to 10% More Yield Potential

We also believe that some venting greenhouses gassing CO<sub>2</sub> may get up to 10% more plant production using our systems while saving 90%-95% of their CO<sub>2</sub> use.

The best Northern Hemisphere plant grow period is June to August but that is when the greatest amount of venting has to take place. You cannot have peak plant production without continuous peak CO<sub>2</sub> gassing levels.

Our technology works during all venting, providing peak CO<sub>2</sub> availability to plants.





# Global CO<sub>2</sub> Market

Delivered CO<sub>2</sub> gas is the most important operating cost for a grower who uses our technology. Therefore, we have dug deeper to illustrate the current industry of CO<sub>2</sub> supplies and prospects of new low-cost supplies from direct air capture.

From November 2022 Gas World "CO<sub>2</sub> is used widely in the food and beverage industry as a refrigerant and also used in Modified Atmosphere Packaging (MAP) to improve shelf life and in carbonating drinks. Dry ice (solid CO<sub>2</sub>) has increasingly been used to keep food frozen during home delivery, a trend that has boomed during the Coronavirus pandemic".

No mention is made for growing more food in sealed greenhouses so this global market for CO<sub>2</sub> gas from industrial gas suppliers delivered to greenhouses is quite small and unidentified.

## CO<sub>2</sub> Sources Vary by Region

Ammonia production is a key source for CO<sub>2</sub> production. Any extended shutdown has a major local impact on CO<sub>2</sub> supply.

The EU has been in a CO<sub>2</sub> crisis for most of 2H 2022 as they rely far more on CO<sub>2</sub> from ammonia plants, many of which have shut down. In contrast, North America is far more reliant on CO<sub>2</sub> from corn-based ethanol plants that create ethanol biofuels.

## CO<sub>2</sub> Gassing Use and Cost

Our technology is highly efficient. We have low energy usage due to optimized technology use for when it is needed. Our technology operates at 1 atmosphere (ATM) which means we have low CO<sub>2</sub> use.

CO<sub>2</sub> gassing greenhouses can use from 1,000–4,000 MT/year per 1 million sq ft of grow area. All-in estimated delivered CO<sub>2</sub> prices to greenhouses can range from \$200–\$1,000 per tonne.

Greenhouses creating their own CO<sub>2</sub> gas predominantly burn natural gas if a gas pipeline is provided to the site. Growers continuously assess the cost of delivered natural gas versus delivered CO<sub>2</sub> from industrial gas suppliers (if on a gas pipeline) and will typically choose the lowest cost supply of the two.

CO<sub>2</sub> costs therefore tend to track natural gas costs. In 2022, natural gas commodity prices doubled in North America and quintupled in the EU due to the Russian invasion of the Ukraine.

The lack of EU gas supplies has forced significantly more expensive alternatives such as importing LNG from the Middle East, the US Gulf, Australia and elsewhere so their gas costs going forward will be much higher than in North America.

# Global CO<sub>2</sub> Market



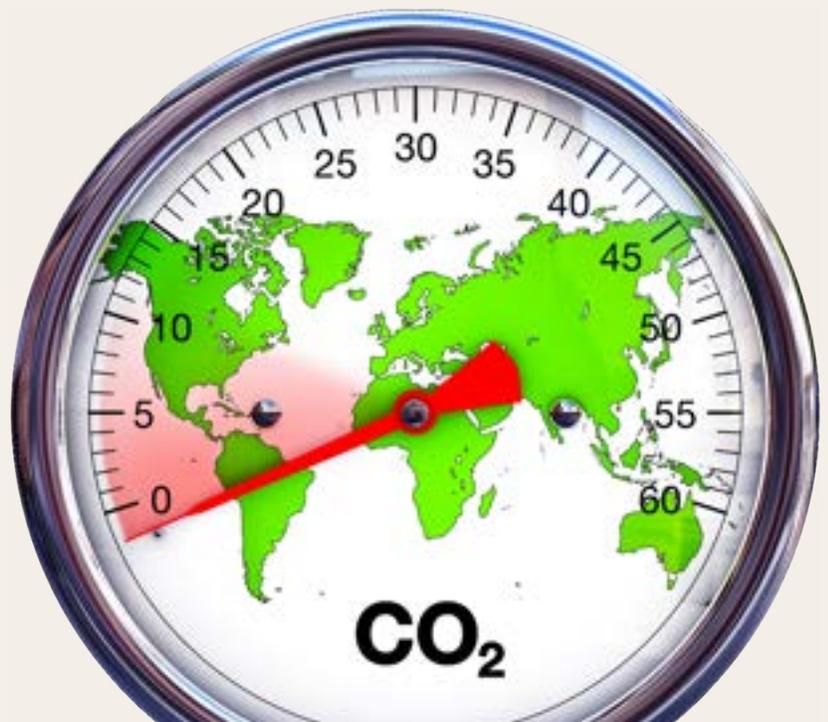
## CO<sub>2</sub> Use and Cost Assumptions

For 2023, our CO<sub>2</sub> usage assumptions are 1) 2,000 MT of average CO<sub>2</sub>/year usage for every 1 million sq ft of CO<sub>2</sub> gassing greenhouses and that 2) are/will be paying an average \$650/CO<sub>2</sub> tonne delivered.

Large variations in CO<sub>2</sub> gassing usage and price are due to:

- Sharply higher global natural gas and related CO<sub>2</sub> delivery costs are pressuring venting greenhouses to use CO<sub>2</sub> gas more frugally.
- Greenhouses that buy delivered CO<sub>2</sub> from industrial gas suppliers are usually located nearby ethanol plants as in Ontario or ammonia plants as in the EU and the UK.
- CO<sub>2</sub> gassing varies among vegetable growers who may use 1,500-2,500 tonnes/yr for 8-9 months grow seasons to Cannabis growers who use a more intensive 3,000-4,000 tonnes/yr as they grow year-round.
- Delivered CO<sub>2</sub> gas usage drops as distance increases. Islands like Hawaii without ethanol and ammonia plants pay in excess of \$1,000/CO<sub>2</sub> tonne delivered. California has few ethanol and ammonia plants so their all-in delivered CO<sub>2</sub> gas costs now exceed US\$650/tonne.

- High 2023 natural gas costs forced many EU greenhouses to shut down until spring as they would have lost money otherwise. In the Netherlands, about 80% of their CEA greenhouses went dark in November 2022. This benefits Spain, Morocco, Turkey and Mexico growers with lots of natural sunshine and warmth to cost effectively grow plants for export. They do not use CO<sub>2</sub> gassing.
- CO<sub>2</sub> gassing use has seasonality. Like the EU, Canada doesn't have much natural winter light to grow plants and heat is far more expensive. Canada's fresh produce is imported from November to March from the US Southwest and Mexico. This seasonally alters high tech greenhouse CO<sub>2</sub> usage.



# Global CO<sub>2</sub> Market

## 2023 CO<sub>2</sub> Markets Tighten

The loss of at least four ammonia plants in the EU (UK, Norway and NL) has sharply curtailed CO<sub>2</sub> gas supplies from those sources for greenhouse use.

In the US, from a Q3 2022 Gas World article, "A tightening in carbon dioxide (CO<sub>2</sub>) supply is beginning to hit the US beverage market".

Sam Rushing, President of Advanced Cryogenics stated "All the raw gas sent to the CO<sub>2</sub> firms for liquefaction and purification are faced with contaminated product; thus they cannot operate at this time.

Failure to address CO<sub>2</sub> contamination issues can leave a product at risk of bad tastes, strange odours, spoilage, and product recalls. This leads to far higher prices, allocations, and significant shortages of product."

EU CO<sub>2</sub> gas supplies will shrink further as renewables take over. In the Netherlands, Geothermal Energy Netherlands stated "By 2030, the contribution of geothermal energy to heat production will have quadrupled."

## DAC CO<sub>2</sub> Costs Falling

Over time, Direct Air Capture (DAC) CO<sub>2</sub> capture will become a readily available source of CO<sub>2</sub> for protected growers, first in remote locations where delivered CO<sub>2</sub> cost are high and then more mainstream as costs to capture CO<sub>2</sub> fall below burning fossil fuels to make it. We focus on 2023–2030 DAC prospects later in this ESG report.

## 2023 Carbon Taxes

The EU leads the world in setting ESG disclosure, carbon tax regimes and other clean policies. California appears to be the next leader setting the direction for US clean air and fuel policies.

EU's carbon taxes are currently above €100/tonne, similar to the end of 2021. In North America, 2023 carbon taxes and credits range from US\$30/tonne in California and Quebec to C\$65/tonne in the rest of Canada.

By 2030 they are mandated to reach C\$170/tonne if the federal Liberal government remains in power.

We assume protected ag growers that buy CO<sub>2</sub> or burn fossil fuels to make CO<sub>2</sub> will face a long term average carbon tax price of \$100/tonne for their CO<sub>2</sub> emitted.

# Global CO<sub>2</sub> Market



## Carbon Credits

In 2023–2024, we are working to develop carbon credits in Canada, US, and EU where most of the greenhouses that gas CO<sub>2</sub> are located and have the most expensive carbon credits.

As we will create permanent reductions in CO<sub>2</sub> usage at these CO<sub>2</sub> gassing greenhouses we should qualify for their highest valued, mandatory credits.

We will need third party audited data as to how much our CO<sub>2</sub> gassing customers buy re delivered CO<sub>2</sub> and/or how much they make by burning fossil fuels for CO<sub>2</sub> gassing.

Any carbon credit value we can create will materially add to greenhouse grower economics implementing our technology.

## Austria and Ireland Charge

In 2022, carbon emission taxes rose sharply for Austrian and Irish greenhouses gassing CO<sub>2</sub> where they are charged.

The vast majority of governments have yet to implement the tracking of greenhouse CO<sub>2</sub> emissions data including Canada. They are therefore also not charging appropriate affiliated CO<sub>2</sub> emission charges.

A Nov 8, 2022 Horti Daily article stated Austrian growers like Michael Unger who grows peppers all year round pay carbon taxes. "Normally we have gas costs of 40,000 to 45,000 euros in September, but now we pay about 160,000 euros."

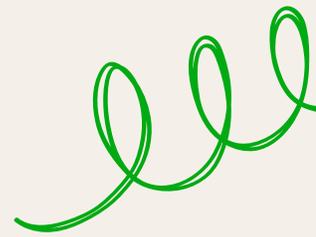
Gemüse Perlinger, Austria's largest greenhouse vegetable grower says, "People are struggling not only with the energy costs, but also with the CO<sub>2</sub> tax. Many industrial companies are 95 percent exempt from this tax. However, we food producers are not. And this year, the consumption-dependent tax for gas has been increased retroactively from August, from two cents to ninety cents. For our company, that amounts to more than 800,000 euros per year."

"It no longer pays to grow certain types of vegetables all year round, so that there will be no tomatoes from October to March, for example."

The Irish Government made a concession to their greenhouses in late 2022 where they would stop charging carbon taxes but only if the source of CO<sub>2</sub> came from burning biomass or other renewable feedstocks.

Our technology significantly mitigates carbon tax and carbon footprint because it uses up to 95% less CO<sub>2</sub> than CO<sub>2</sub> gassing grow facilities.

# Global CO<sub>2</sub> Market



## Greenhouses Need to Track CO<sub>2</sub>

We believe over time, that EU, US and Canadian greenhouse owners that gas CO<sub>2</sub> will have to first track and then eventually pay for their CO<sub>2</sub> emissions under either local or global CO<sub>2</sub> emission taxation regimes including for both purchased and created CO<sub>2</sub> gas venting losses.

## Mitigation of Carbon Footprint and Greenhouse Gas Emissions

Some governments like Canada's subsidize fossil fuel burning at greenhouses for their CO<sub>2</sub> gas supply.

Canada and/or its provinces have yet to force their CO<sub>2</sub> gassing greenhouses to collect CO<sub>2</sub> emission data, nor do they charge greenhouses CO<sub>2</sub> carbon emissions taxes.

We intend to educate the Canadian governments (federal and provincial) and greenhouse associations on why our technology will:

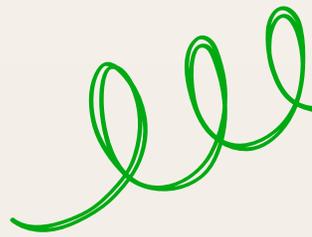
- Dramatically cut their CO<sub>2</sub> emissions up to 95%, contributing to lowering their carbon footprint,
- Mitigate potential future carbon taxes, and
- Create carbon credits when applying our technology.

In 2023, we expect to announce a number of CO<sub>2</sub> gassing Canadian greenhouses that will Trial and/or install our technology.

That could accelerate, if the Canadian governments require greenhouses to track CO<sub>2</sub> emissions, as they do in the Netherlands.



# Global CO<sub>2</sub> Market



## Canadian Greenhouse Fossil Fuel Grants

In Ontario, there are 50% rebates under an Energy Efficiency program for greenhouses to switch to low energy using LEDs. We will be seeking a comparable program for Ontario greenhouses to install our technology.

We will be seeking the support of the federal and provincial governments to consider our technology in lieu of these fossil fuel subsidies. We have a role in educating Canada's greenhouse associations like BC's BCGA and Ontario's OGVA.

The province of British Columbia (Ministry of Agriculture and Food) reimburses 80% of greenhouse natural gas and propane costs used in their greenhouses if used for either heat, power, or CO<sub>2</sub> supply. This annual subsidy is available to all BC greenhouses provided they do not grow *Cannabis*.

In addition, using our technology provides enhanced yield without increasing infrastructure as it works through all venting requirements throughout all seasons whereas CO<sub>2</sub> gassing does not.

We would like these Associations to recommend implementing our technology to their members such that they can dramatically cut their CO<sub>2</sub> gassing footprint.





# Economic Value for Growers Rises as Food Prices Increase

## 2023 Revenue per Square Foot

Generally, US\$1.25-\$2.50/kg is paid by food distributors and retail chains to their protected tomato, pepper and cucumber growers. (Tridge Jan 2022). The lower end price is paid to the growers furthest from import markets to offset higher import transportation costs.

In 2021-2022, Spain exported 865.6 million kilos of peppers for a record 1,363.15 million euros and an average price of €1.57/kg. Source: hortoinfo.es Oct. 18, 2022.

In Canada's greenhouses, average vegetable production is about 20 kg/m<sup>2</sup> or 2 kg/sq. ft. Revenue/sq ft in Canada's greenhouses can therefore range from \$25/m<sup>2</sup> (\$2.50/sq. ft.) to \$50/m<sup>2</sup> (\$5/sq. ft.) when using CO<sub>2</sub> gassing.

## Value rises as growers get higher prices to offset higher input costs

In 2022, growers obtained 10% higher prices to cover the double digit input cost increases (labor represents 50%, transportation, fertilizers, energy, etc.)

As our technology provides constant yield improvements, the value to growers increases as their farm gate proceeds increase.

## Value sensitivity example:

Rev/Sq Ft	20%-30%>yield
\$3.00	\$0.60-\$0.90
\$4.00	\$0.80-\$1.20
\$5.00	\$1.00-\$1.50



# Our Value Add Rises



## Organic Farming Still in Demand

The global organic food market is expected to reach \$380.84 billion by 2025 at a CAGR of 14.5% according to the 2022 Business Research Company estimate. This trend continues, however more modestly, as it represents high income and health conscious customers.

Organic growers using our technology should obtain lower input costs, greater food yields, and enhanced sustainability practices.

The use of our CO2 Delivery Solutions™ technology can help accelerate this organic trend as our technology is natural.



# Grower Benefits Beyond Production

In this report, we have placed greater focus on improving food production. In 2022, we witnessed quality improvements yielding additional revenue. A few examples of higher plant value benefits excluding PPP are below:

## **Larger Cherry Tomatoes Garner Premium Value**

Our first interim cherry tomato Trial was press released mid-2022. Results showed a 10% weight increase of cherry tomatoes grown. However, the value created was closer to 20% as our Trial sharply reduced 1) the number of cherry tomatoes too small for packaging that are sold at a loss for tomato paste and 2) increased the percentage of larger and higher valued cherry tomatoes that garner premium prices. Our second Trial underway is twice the square footage of the first.

## **Longer Roses with Larger Bud Circumference**

Longer stems and larger bud size are given a significant value premium.

## **Cannabis – Bigger Buds**

In November 2022, Doug Chloupek, CEO of Juva Life, a *Cannabis* grower and Life Science Research company stated that "Earlier this year, the average price per pound of *Cannabis* flower was about \$750 to \$1,100 for quality, big buds and \$300-\$450 for small buds."

Our *Cannabis* Trials and Sales yielded bigger buds relative to baseline growth which provide higher value than the smaller buds.

## **Cannabis – Higher THC**

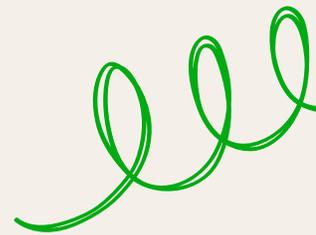
Our Trials and Sales have also indicated higher THC levels.

## **Sharp Reductions in Plant Liner Waste**

One ongoing plant liner Trial at a major flower grower has seen a decrease of 67% liner waste (from 30% loss to 10% loss) by using our technology.



# Grower Benefits



## Lower Vegetable Crop Loss/Damage with PPP

CO2 GRO's data confirmed our technology sharply suppresses micro-pathogen breakouts. Each grower uses different grow methods and has a different risk profile to micro-pathogens based on the climate variables they grow in.

We cannot estimate the reduction in crop damage losses from our "micro-pathogen suppression" or the reduction in chemical pesticides that are no longer required.

These values do indirectly show up in our yield improvements.

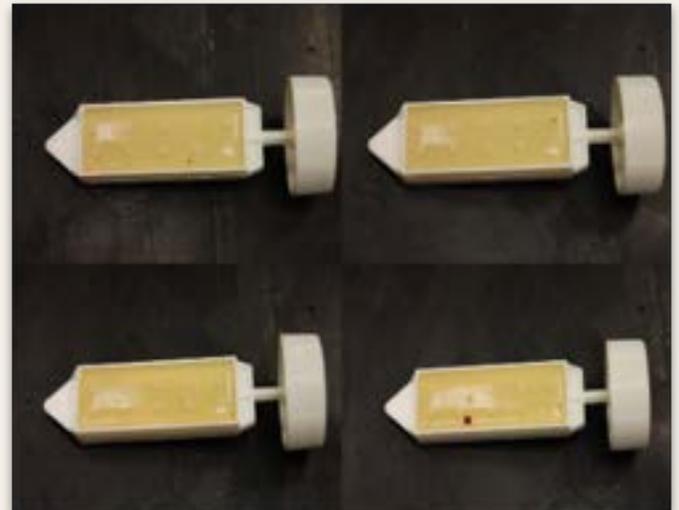
Our PPP is sufficient to protect every grower's crops, regardless of growth style, crop grown, nutrients used, lighting, and facility location.

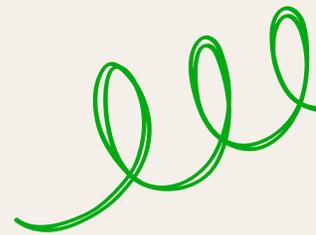
**We have scientifically and commercially measured 99% reduction in E. coli growth.**

CO<sub>2</sub> gassed/ambient CO<sub>2</sub>



Aqueous CO<sub>2</sub> misted





# CO2 Delivery Solutions™ Benefits Summary

The use of our technology leads to the following benefits:

- Increased revenue & profit margins for growers
- Greater crop production
- Shortens crop cycle time
- Pathogen Perimeter Protection (PPP)™ reduces pesticide use
- Reduces CO<sub>2</sub> atmospheric losses
- Improves health & safety for workers (gassing air quality)
- Safe for plants, people, and animals if ingested

**LESS CO<sub>2</sub> GAS USE** = **LOWER CARBON FOOTPRINT**

**MORE YIELD** = **LESS RESOURCES USED**

In 2024, we will report our realized outcomes and the impact of carbon credits for CO<sub>2</sub> gassing by those greenhouses that have switched to our technology. Additionally, we will report our progress in achieving 100 metric tonnes per year of additional food growth.

An additional 100 million tonnes/year of fresh produce using our technology will not require any additional investment in infrastructure or any additional square footage in new protected ag facilities.

**This additional fresh produce could feed up to 500 million more people annually.**

The environmental footprint of all protected ag facilities per unit of yield will therefore fall using our hyper-efficient CO<sub>2</sub> Delivery Solutions™.



# 2023 Global Trends

## CO<sub>2</sub> Supply Risks Growing

Greenhouses relying on third party fossil fuel emission based CO<sub>2</sub> supplies will be challenged going forward finding non-fossil fuel CO<sub>2</sub> supply.

Australia's National Science Agencies (CSIRO) Paul Graham stated, "Up to 90% of electricity from solar and wind will be the cheapest option by 2030". Geothermal power generation costs are becoming cheaper in countries like Turkey and the Netherlands, which have reserves.

Turkish greenhouses are gaining EU market share because many have cheaper geothermal power relative to more expensive fossil-fuel alternatives.

Geothermal power lacks CO<sub>2</sub> emissions similar to solar and wind energy that could be available for greenhouses.

By using our technology, which uses up to 95% less CO<sub>2</sub>, there will be a smaller CO<sub>2</sub> footprint making it more affordable in the long run for protected growers.

## EU Ammonia Plants Gone

In the EU and the UK, Norway's Yara, US based Terra Nitrogen and CF Industries and others have permanently shut ammonia plants in 2022. All stated it was unfeasible to continue producing nitrogen fertilizers due to soaring natural gas prices.

From a November 9, 2022 Horti Daily article "According to Fertilisants Europe, the European Association of fertilizer manufacturers, almost 70% of European ammonia production has stopped since August due to sky-high gas prices."

## Gas Subsidies for Voters First, Not Industry

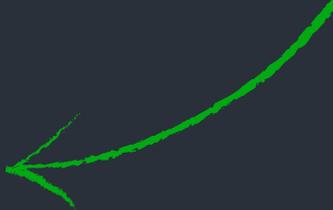
Also, some UK and EU governments are subsidizing 2023 natural gas to heat voter homes instead of supporting nitrogen fertilizer production. The UK's 60 billion pound winter 2023 heating subsidy for its residents is an example.

## EU Natural Gas and Power

Many greenhouses and their associations in Finland, Austria, the Netherlands, and the UK stopped growing winter vegetables as it became far too expensive.

This has exacerbated the fresh produce shortage in the UK and all of the EU.

# Global Trends



## Grower Margins Remain Low

Protected ag margins have always been very low as their produce is not differentiated. Also, there are millions of growers, similar to oil and gas producers. They are all price takers.

Major food distribution oligopolies and major retail grocery chains dictate the prices paid to growers.

In Canada, the big grocery chains all reported record profits in 2H 2022. That led to a Federal inquiry in Canada to probe the local retail food oligopoly pricing practices.

## Labor Cost and Supply

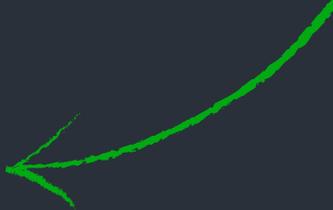
Highlights from the 2022 greenhouse and Nursery Labor Employment Survey showed nearly two thirds of survey respondents indicated that they were unable to hire all the employees they wanted during 2021. The average workforce shortage across the sample was nearly 20% of the workforce necessary for growers to operate at full capacity.

In a 2022 Greenhouse Grower survey, nearly half of the surveyed growers deployed a new labour-saving technology during 2021. Of those who did, 50% reported spending at least \$100,000.

## CO<sub>2</sub> Emission Costs To Grow

More greenhouses used to burning fossil fuels for their CO<sub>2</sub> gas supplies will also eventually start paying for their CO<sub>2</sub> emissions as in the EU. Our next section focuses on this rapidly evolving area.

# Global Trends



## Carbon Credits

Carbon credits can either be: 1) Unaudited Voluntary Emissions Reduction (VER) or 2) Audited Certified Emissions Reduction (CER).

### VER Credits

VER refers to a carbon offset that you can exchange OTC (over-the-counter) or on the voluntary markets for carbon credits. Reforestation, energy efficiency and renewables projects typically fall in to VER programs. They are of much lower value typically below \$5/CO<sub>2</sub> tonne.

### CER Credits

CER is an emission unit (credit) that is created via a regulatory structure with the expressed purpose of offsetting or neutralizing a company's carbon emissions. The key difference is the CER receives regulation from a third-party entity that certifies the credits, whereas the VER does not.

### Proposed TER Credits

A new credit called True Emission Credit or TER is evolving. Qualifying projects must show immediate CO<sub>2</sub> reductions. CO<sub>2</sub> gassing greenhouses switching to our technology would qualify. A reforestation project would not.

## Types of Carbon Credit Projects

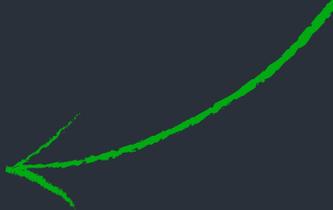
Carbon reduction projects are generally nature-based or mechanical. Nature-based initiatives include reforestation and wetland rejuvenation projects; solutions that "naturally" sequester carbon in the environment. They are low value credits.

Mechanical solutions are generally investments in new technologies that create increased efficiencies or reduced emissions (like renewable energy projects or direct carbon capture technologies). That is where CO<sub>2</sub> GRO's technology fits in.

## US Definitions Still In Flux

According to Carbon180, the US DOE has issued a notice to spur best practices for carbon removal via a notice of intent in mid-November 2022. The DOE is calling for researchers to collaborate and establish an entire new class of monitoring, reporting, and verification (MRV) tools for the carbon removal industry.

# Global Trends



## Highest Carbon Value Markets

### EU Carbon Credit EUAs

The EU's carbon credits are called EUAs (European Union Allowance). One EUA allows the holder to emit one tonne of CO<sub>2</sub> or CO<sub>2</sub> equivalent greenhouse gas. These high quality credits must be audited and verified as CO<sub>2</sub> reductions/storage are permanent.

Current 2023 EUA prices are about EURO 100/tonne, up 18% YoY from Dec 2022 prices.

Airlines now must track CO<sub>2</sub> emissions on intra-EU flights and pay for EUAs to offset their emissions. As a result, there's a greater demand for a limited number of carbon credits.

### EU Dec 19 – NOS News

In December 2022, the EU set up a new system called Carbon Border Adjustment Mechanism (CBAM) in addition to the ETS. The agreements needs to be confirmed by ambassadors of the EU member states, and by the EU parliament, and adopted by both institutions before it is final.

CBAM stipulates that companies must pay for their CO<sub>2</sub> emissions. For every tonne they emit, they buy a certificate. This additional demand drives up the value of the carbon credits.

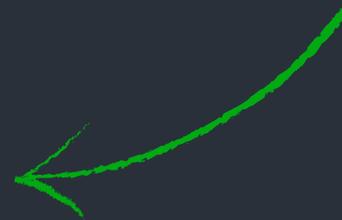
The fear is that because of ETS, companies will leave abroad because they do not have to pay for their CO<sub>2</sub> rights there – this is also called 'carbon leakage'.

In the Netherlands, about 400 companies fall under the ETS system, they are jointly responsible for ~ half of the emissions in the Netherlands.

With the CBAM, non-European companies that import products to Europe will also pay for their CO<sub>2</sub> emissions. In fact, the EU links the rest of the world to the European ETS. The pilot phase of the CBAM will start in October 2023.

European importers will need to report to CBAM authorities, once ratified. There they must indicate which products they want to import fall under the CBAM. Those products are then registered in the register, and that register is managed by the European Commission.

# Global Trends



## NL Greenhouse CO<sub>2</sub> Cuts

NL – Kas Als Energiebron – Dec 7 2022 published that Netherlands 2021 greenhouse horticulture CO<sub>2</sub> emissions rose by 0.35 million tonnes to 6.5 million tonnes.

The now signed Covenant energy transition greenhouse horticulture 2022–2030 set a residual emission target for 2030 of 4.3 – 4.8 million tonnes CO<sub>2</sub> equivalents (to be further specified in spring 2023).

This CO<sub>2</sub> emissions target cut is strictly for NL greenhouses. NL leads the world in forcing greenhouses to track emissions and reduce them or pay EUAs if the event they do not.

## US CCA Carbon Credits

The California Carbon Credit Market (“California Cap and Trade Program”) California Carbon Allowance (CCA) program finished 2022 at about 31.50 per tonne with early Q2 2023 prices being stable.

## Canada’s Carbon Charges

Canada’s CO<sub>2</sub> emission charge went up to CAD 65/tonne as of Jan. 1, 2023. Until 2030, Canada’s carbon prices will keep rising CAD 15/tonne per year to reach CAD 170/tonne if the Liberals still lead the Federal government.

Quebec follows California’s CCA program instead of Canada’s to date.

There is a debate on how the Federal Government will surcharge Quebec for the CAD 25/tonne difference between the current CAD 65/tonne level in Canada and USD 30/tonne price differential.

## Our Carbon Credit Potential

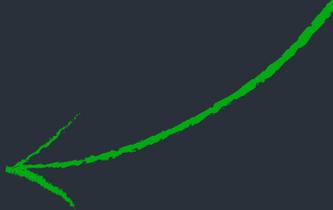
Our technology’s use in Canadian, US, or EU greenhouse gassing CO<sub>2</sub> should qualify for these highest quality mandatory credits.

Also, there is an opportunity in low value voluntary carbon markets for nature based credits sequestering CO<sub>2</sub> into larger, faster growing plants.

Here we could get a lower value CO<sub>2</sub> credit when growers use our technology. This avoids society having to build 200 billion additional square feet of protected agriculture facilities in order to grow 100 million tonnes per year more fresh produce. 



# Global Trends



## Rapid 2023 DAC Progress

Direct Air Capture (DAC) of CO<sub>2</sub> companies are now gaining momentum (capital and government support). DAC refers to technologies that use engineered processes to remove carbon dioxide (CO<sub>2</sub>) from the air, which is an unlimited resource.

According to The Economist, the global potential market value of Direct Air Capture (DAC) of CO<sub>2</sub> technology could reach \$100 billion by 2030.

In June 2022, Swiss Re and Climeworks AG signed a ten-year carbon removal purchase agreement, signalling the opening of long term contract worth \$10 million.

Climeworks AG is the leading global DAC player entering 2023. From their second annual report "The good news is that from the moment you build your first plant(s) onwards, the costs can come down quite quickly. Field experience teaches you which redundancies and overdesigns are really needed."

All DAC companies making public statements are targeting to reduce the cost of extracting CO<sub>2</sub> to \$100/tonne over time.

## Impact on CO<sub>2</sub> GRO Inc.

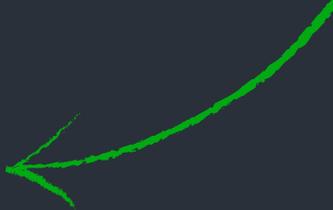
Our El Salvador customer HidroExpo can only obtain smaller CO<sub>2</sub> cylinders (v. bulk tankers) to their greenhouse complex. They manifold half a dozen cylinders and replace them weekly.

We estimate their delivered cost per tonne is close to \$1000/tonne. Locating DAC units on site will make a huge difference to economics, especially for remote growers.

The long term DAC target if achieved would undercut almost all CO<sub>2</sub> being made or delivered to greenhouses today and accelerate the adoption of our technology.

We are interacting with all DAC companies that are building small units and expect to try out several in 2023 with our customers.

# Global Trends



## US DAC Support Strengthens

In 2022, the US Government raised its US DAC company support to \$3.5 billion, up from only \$1 million in 2018.

In Q3, 2022, the US Inflation Reduction Act (IRA) was passed, investing \$350 billion in domestic energy production and clean energy. The IRA Act established “made in America” provisions to use American-made equipment for clean energy production.

The new law provides expanded clean energy tax credits for wind, solar, nuclear, clean hydrogen, clean fuels, and carbon capture.

As per the IRA: 1) increased credit value to \$180 per ton, up from \$50 per CO<sub>2</sub> ton and 2) each project must now capture at least 1,000 tons of CO<sub>2</sub> per year to qualify for the credit, as opposed to 100,000 tons per year, making the credit far more attainable. (45Q tax credit).

## EU DAC Response Q4 2022

The EU will adopt its State Aid rules to mitigate an exodus of investment in EU Companies due to the IRA. That means more capital will be allocated for EU clean tech companies. “Competition is good...but this competition must respect a level playing field” EC President Ursula von der Leyen.

## Canada Also Responds in Q4

Canada also announced CAD 15 billion of clean tech support in Q4, 2022 to counter the protectionist US IRA.

B.C.-based Carbon Engineering has successfully commercialized its large scale DAC technology. We do not know of any other DAC companies in Canada. They raised CAD 68 million in 2019 and are working with major oil & gas companies on mega-tonne CO<sub>2</sub> capture projects. Their systems are too large to apply our technology at an individual greenhouse location. However, a large cluster such as in Almeria, Spain or in Leamington, Ontario, Canada, could have sufficient demand for a large DAC unit such as Carbon Engineering’s.

We are looking to to work with several small DAC companies in 2023 that have units at/below 1 tonne per year.

# Global Trends

## EU Responds Further

The EU announced in mid December 2022 that it would strengthen global environmental standards and protect its domestic industry by implementing the world's first carbon border tax. There will be trade dispute risks and possible WTO rule backlash.

Companies from outside Europe will have to pay for their CO<sub>2</sub> emissions, just like European companies if they wish to import to the EU.

How this new form of carbon taxation unfolds in 2023 remains to be seen. Overall, all these actions support more and faster clean tech developments and financial support from taxes raised for technology to help reduce CO<sub>2</sub> emissions.

## Commercial US and EU DAC Companies

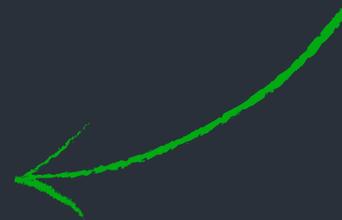
Swiss based Climeworks AG estimated that 20,000 Metric Tonnes per year was the global commercial DAC capacity as of mid-2022. They have 15 DAC plants with 100,000+ operating hours and 10,000 Metric Tonnes per year of DAC capacity. Climeworks will accelerate their expansion after raising \$600 million of equity in Q3 2022.

Norway's Greencap Solutions has ten 300 Metric Tonnes per year modules at Norway and Denmark greenhouses or 3,000 Metric Tonnes per year.

California's Air Capture has five 100 Tons per year commercial plants now in operation or 500 Tons per year. Its first sale was to a California micro-brewery in Q3 2022.



# Global Trends



## Falling DAC CO<sub>2</sub> Costs

Current all-in 2023 direct CO<sub>2</sub> capture appears to cost about \$400-\$450 per tonne provided the DAC machines are used continuously. This is based on estimates we received from several DAC companies.

In 2021, Climeworks AG, the world's largest DAC company, quoted \$600 per tonne. As of 2023, they now estimate \$500 per tonne in 2025, \$300 per tonne in 2030 and \$200 per tonne in 2035 – on path to fall 10% per year.

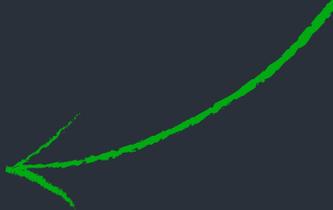
In December 2022, Israel-based DAC RepAir Carbon raised \$10 million from Equinor Ventures, Shell Ventures, and Zero Capital. Their shipping container units capture 200 tonnes per year of CO<sub>2</sub>. Their technology uses 70% less energy than conventional DAC systems. Their target cost of DAC CO<sub>2</sub> is \$70 per tonne, calling DAC a trillion dollar opportunity by 2050.

A DAC cost improvement curve of 10% per year, similar to solar power's track record, appears highly likely for DAC companies.

Additional government support and private capital is accelerating DAC prospects. At remote grower sites, our technology coupled with DAC systems is an excellent long-term opportunity for accelerating our technology's implementation and offering CO<sub>2</sub> cost savings.



# Global Trends



## Negative CO<sub>2</sub> food production

Combining technologies such as solar, DAC, and CO<sub>2</sub> Delivery Solutions™ would yield a carbon negative environment, adding 20%–30% to plant production from existing facilities and storing the DAC extracted CO<sub>2</sub> into additional plant biomass.

Climeworks AG's DAC unit in Switzerland, for example, captures and pipes 900 metric tonnes per Year of CO<sub>2</sub> to a nearby 2.5 hectare tomato greenhouse. The yield improvement ~ 18% more tomatoes.

Our technology can provide the same 18% tomato yields using only 30 metric tonnes per year or up to 95% less CO<sub>2</sub>. Solar energy production costs have dropped 10% per year over the last ten years.

Globally, it is now the lowest cost new green power source.

It is impossible for hoop houses to use CO<sub>2</sub> gassing but they now can add CO<sub>2</sub> enrichment via foliar delivery of CO<sub>2</sub> using our technology.

It requires about ten minutes per day of power. For very remote locations without any electricity, they could install solar panels and some power storage to operate our technology.

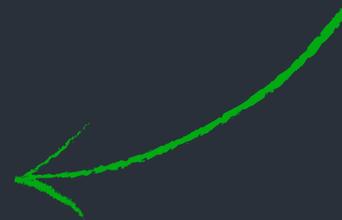
Over time, they will also see onsite DAC CO<sub>2</sub> capture costs coming down to \$100 per tonne from the \$1,000 per tonne delivered by industrial gas companies today.

Any remote no-tech, low-tech, medium tech or high tech grow facility will finally be able to maximize plant production with our enriched CO<sub>2</sub> delivery technology.

This trio of clean technologies would create carbon-negative food supply. It is the future. We estimate our technology's use with onsite DAC units could capture and use about 6,000,000 tonnes of CO<sub>2</sub> per year in protected ag facilities located anywhere.

**Remote grow facilities anywhere could add up to 30% more food production with low cost DAC, solar, and aqueous CO<sub>2</sub> delivery.**

# Global Trends



## Summary

The globe has to grow enough food from the protected ag facilities that have already been built because there are only a few new grow facilities being built. Until farm gate prices rise enough so protected growers can make profits again to support new investments, they need to seek out ways to grow more from their existing facilities.

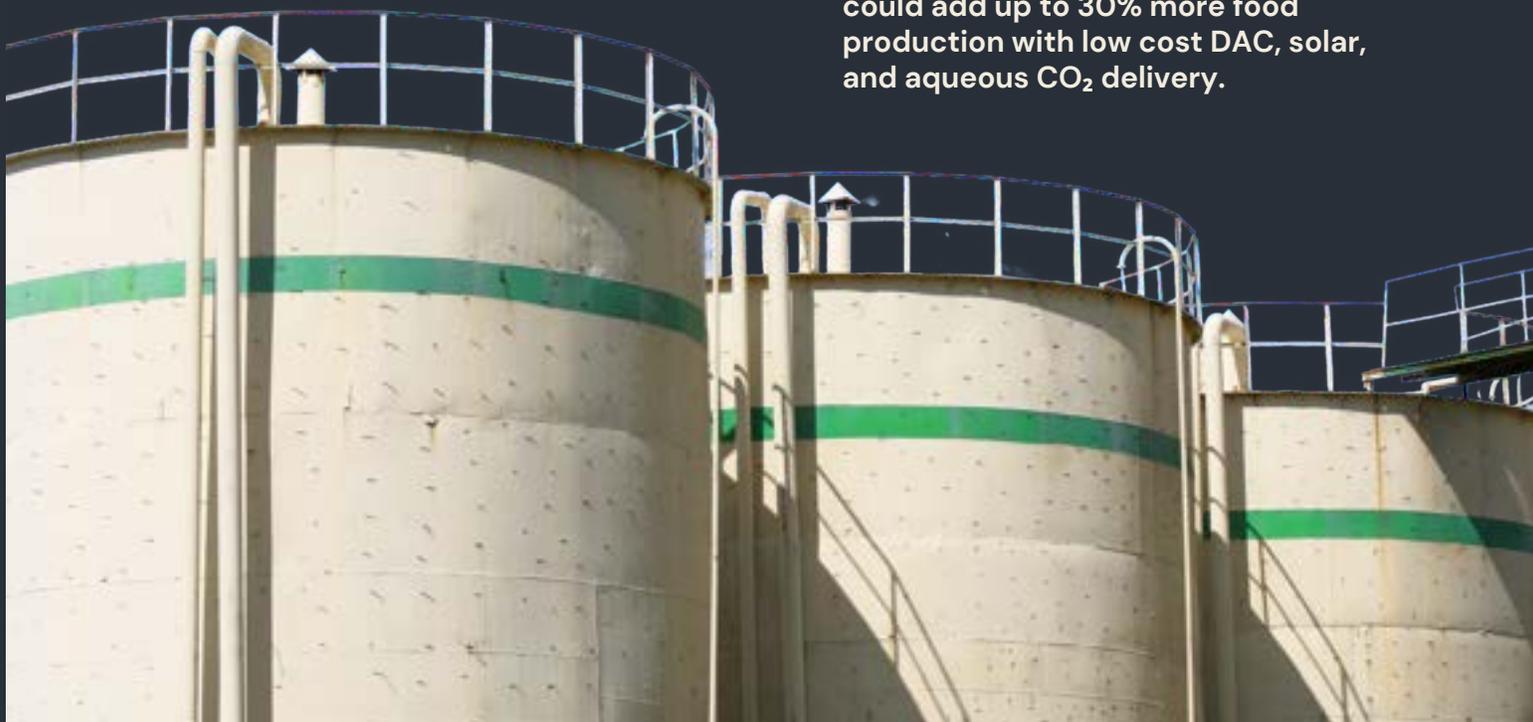
We have an excellent sustainable technology to improve plant production by up to 30% from existing protected agriculture facilities, especially in low-tech facilities that do not currently use CO<sub>2</sub>.

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# Governance

At CO2 GRO, the company is overseen by its Board of six Directors of which four are independent. Our Directors are screened for and exhibit:

- Reputation (integrity and ethical behavior)
- Independent thought
- Demonstrated ability to exercise judgement and to communicate;
- Financial knowledge;
- Prominence in their areas of expertise;
- Experience relevant to our operations;
- Sufficient time to dedicate to the Board and sub-committee work

They also meet all other compliance criteria set by stock exchanges.

Our Board has the right mix of skills, diversity, background, and experiences to bring strong oversight. They work collaboratively for both compliance and long term value creation.

The Directors' valuable insight, perspectives, and expertise are appropriate to safeguard Management, shareholders and other key stakeholders.

## Ethics & Integrity

Our Management and Board adopted ESG principles in mid-2021. We are committed to good Environmental, Social and Governance (ES&G) policies and practices. We are an equal opportunity employer.

## Ethics

Our organization and international Marketing Partnerships continue to grow rapidly. We represent ~ 25 individuals, of which ten are direct employees, inside consultants and board members. The other fifteen employed by our marketing partners or are independent contractors. In North America and Mexico, these marketing partners and contractors report to our North American Sales Manager while our other international partners report to our VP Sales & Strategic Alliances.

We work diligently to ensure our commitment to integrity and ethical behavior remains at the core of how we conduct business throughout our organization.

Our Code of Business Conduct & Ethics (the "Code") provides guidance to our directors, officers, and employees on ethical and responsible behavior, alongside our Whistleblower, Insider Trading, and Disclosure policies (the "Policies").

# Governance



## Compliance

Annually we review and enhance the Code and the Policies to reflect the evolution of our programs and expectations. The objective of the Code is to provide guidelines for enhancing our reputation for honesty, integrity and the faithful performance of undertakings and obligations.

The Code addresses conflicts of interest, use of company assets, inventions, use of corporate email and internet services, disclosure, corporate opportunities, expense reporting, confidentiality, fair dealing and compliance with laws.

As part of our Code, any person subject to the Code is required to avoid any activity, interest (financial or otherwise), or relationship that would create or appear to create a conflict of interest.

Our Code and Policies reinforce that everyone is empowered to speak up or seek advice without fear of retaliation.

Employees can share their concerns or questions with their supervisor or another member of the management team directly or contact the Chair of our Audit Committee for financial issues or the Chair of our ESG Committee for social or governance concerns openly, confidentially, or anonymously.

Upon joining CO2 GRO Inc. and annually thereafter, every employee must attest to their understanding and compliance with the Code and the Policies.

Our Directors are responsible for monitoring compliance with the Code, regularly assessing its adequacy, interpreting the Code in any particular situation, and for approving changes to the Code, as required, from time to time.

We are committed to fostering an inclusive and diverse culture.

Having a diverse workforce ensures we attract a broader pool of candidates, improve employee retention, better reflects the diversity of the communities in which we operate, reflect the demographic make-up of our clients and partners and provide different perspectives and ideas that contribute to innovation and ultimately our short and long term business success.

# Governance



## 2023 Composition of the Organization

In 2019, CO2 GRO added its first female Board member. She was selected for her expertise, experience and thought leadership. We signed a two year part-time contract with a person having a physical disability, to create and monitor Social Media postings and to provide market research assistance.

Based upon our interactions, the greenhouse industry is male dominated with about 90% of our customers' management and employees being male.

We recognize we have more work to do at all levels of our organization. Management, Board and independent contractors, to add greater diversity (gender, ethnic, etc.) when and where appropriate.

CO2 GRO believes in the well-being and advancement of our employees while fostering diversity and inclusion. Our compensation programs reflect pay equity and do not discriminate between gender, race or the under-represented.

Our engaged and recently more diverse team drives our sustainability performance, supported by strong governance and culture, committed leadership and our vision, mission and values.

## Enterprise Risk Management

In 2022, CO2 GRO conducted a comprehensive Environmental, Social, and Governance (ESG) materiality assessment to ensure focus on the topics that are most important to our mission, our enterprise value and our stakeholders.

We recognize that strong oversight and management of key non-financial risks and opportunities that impact the environment, society, coupled with our business strategy will help us achieve long-term success for our stakeholders.

Our specific climate-related and other ESG risks, such as opportunities to mitigate climate risks for growers identified by our Sales & Marketing team and global Market Research, will provide regular weekly insights to Management that are summarized for the Board.

Apart from Marketing and Investor Relations, the weekly reports touch on information regarding ESG risks, compliance, and liability. Going forward, we are committed to reporting transparently on our ESG topics through a combination of an annual Sustainability Report plus our other publicly available disclosures.

# Governance



## Stakeholder and Shareholder Trust

Preserving stakeholder and shareholder trust is required to ensure CO2 GRO's long-term success.

Our goal is to operate all facets of our business with integrity, from our Board of Directors and our executive team to our workforce and our supply chain and international marketing partners.

We hold ourselves to the highest ethical standards and strive for full compliance with applicable laws and regulations.

Our Board has adopted a formal mandate setting out its stewardship responsibilities, including for the management of our Board, the appointment of management, strategic and business planning, monitoring of financial performance, financial reporting, risk management, policy and procedure oversight, communications and reporting, and compliance.

The Board, and each of its sub-committees, periodically conduct a self-evaluation to assess their effectiveness.

In addition, the Board periodically considers the mix of skills and experience that the directors bring and assesses whether the Board has the necessary composition to perform its oversight function effectively.

# Disclaimer

This 2023 ESG Report is not, and under no circumstances is to be construed as, a prospectus, or advertisement or a public offering of securities of CO2 GRO Inc. (or the "Company"). It contains statements which constitute "forward-looking information" within the meaning of applicable securities laws, including statements regarding the plans, intentions, beliefs and current expectations of the Company with respect to future business activities. Forward-looking information is often identified by the words "may," "would," "could," "should," "will," "intend," "plan," "anticipate," "believe," "estimate," "expect" or similar expressions and include information regarding: statements regarding the future direction of the Company; the ability of the Company to successfully achieve its business and financial objectives; plans for expansion and the ability of the Company to obtain, develop and foster its business relationships; and expectations for other economic, business, and/or competitive factors. Investors are cautioned that forward-looking information is not based on historical facts but instead reflect the Company's management's expectations, estimates or projections concerning the business of the Company's future results or events based on the opinions, assumptions and estimates that management considered reasonable at the date the statements are made. Such assumptions include but are not limited to: general business and economic conditions; the Company's ability to successfully execute its plans and intentions; the availability of financing on reasonable terms; the Company's ability to attract and retain skilled staff; market competition; the products and technology offered by the Company's competitors; and that good relationships with business partners will be maintained.

Although the Company believes that the expectations reflected in such forward-looking information are reasonable, such information involves risks and uncertainties, and undue reliance should not be placed on such information, as unknown or unpredictable factors could have material adverse effects on future results, performance or achievements. Among the key factors that could cause actual results to differ materially from those projected in the forward-looking information are the following: changes in general economic, business and political conditions, including changes in the financial markets; in particular, in the ability of the Company to raise debt and equity capital in the amounts and at the costs that it expects; adverse changes in applicable laws or adverse changes in the application or enforcement of current laws; the biotechnology industry and the greenhouse growers market are highly competitive, and technical advances in the industry will impact the success of the Company, and other risks described in the Company's filings that are available at [www.sedar.com](http://www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking information prove incorrect, actual results may vary materially from those described herein as intended, planned, anticipated, believed, estimated or expected. Although the Company has attempted to identify important risks, uncertainties and factors which could cause actual results to differ materially, there may be others that cause results not to be as anticipated, estimated or intended. The Company does not intend, and does not assume any obligation, to update this forward-looking information except as otherwise required by applicable law.



CO2 GRO Inc.