



CO2 GRO Inc.

# VISION & VALUE PROPOSITION



**Are you interested in up to 30% more yield and revenue?**



**Are you interested in potentially doubling your profits?**



**Are you interested in higher grade produce that fetches higher prices?**



**Are you interested in being a more sustainable-branded grower?**

# Our Vision

CO2 GRO Inc. (GROW: TSXV) is a People, Planet, and Prosperity-focused precision ag-tech, clean-tech company.

We are on a mission to transform 600-billion sq. ft. of protected fruit & vegetable growth facilities so they can increase yield by 30% and feed half a billion more people around the world.





The CO<sub>2</sub> GRO  
Opportunity

Food  
Production  
Globally



600 billion sq ft of global protected food agriculture



Producing 300 million MT of fruits & vegetables annually



Less than 1% currently supplement plants with CO<sub>2</sub>



CO<sub>2</sub> GRO's technology could help grow up to 100 million MT of additional food



Enough to feed up to half a billion people annually



# Benefits of CO<sub>2</sub> enrichment

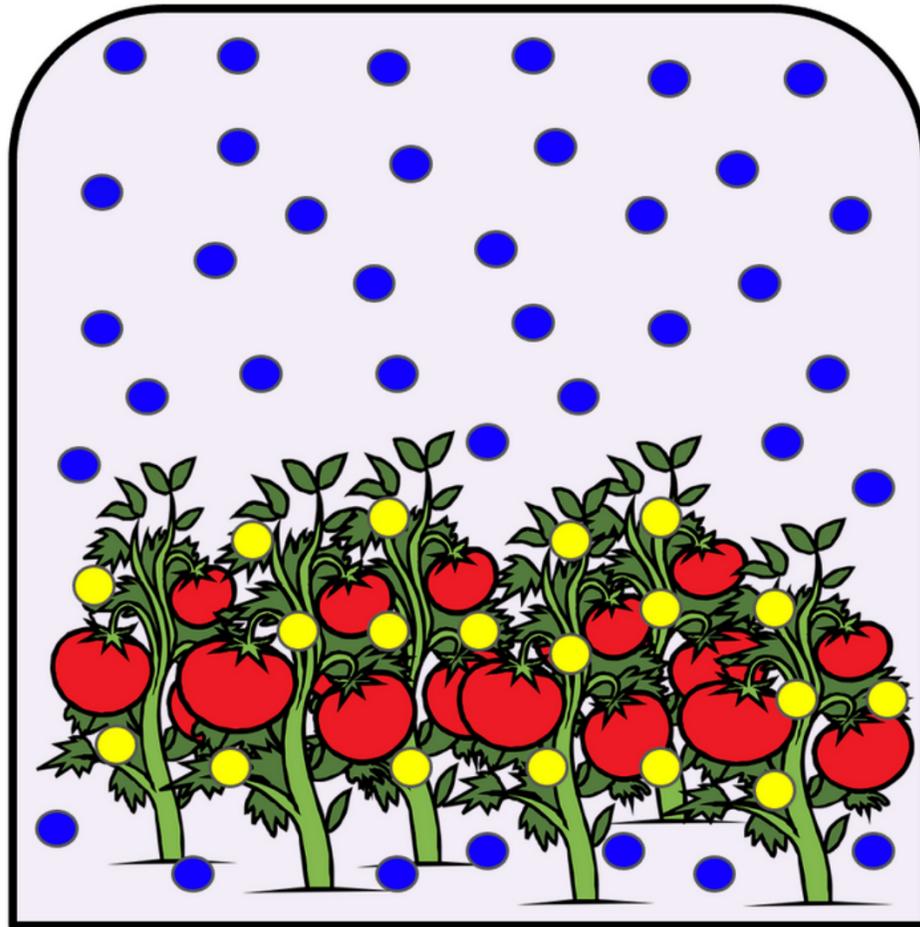
➔ Accelerated photosynthesis

➔ Faster plant growth

➔ Increased plant production

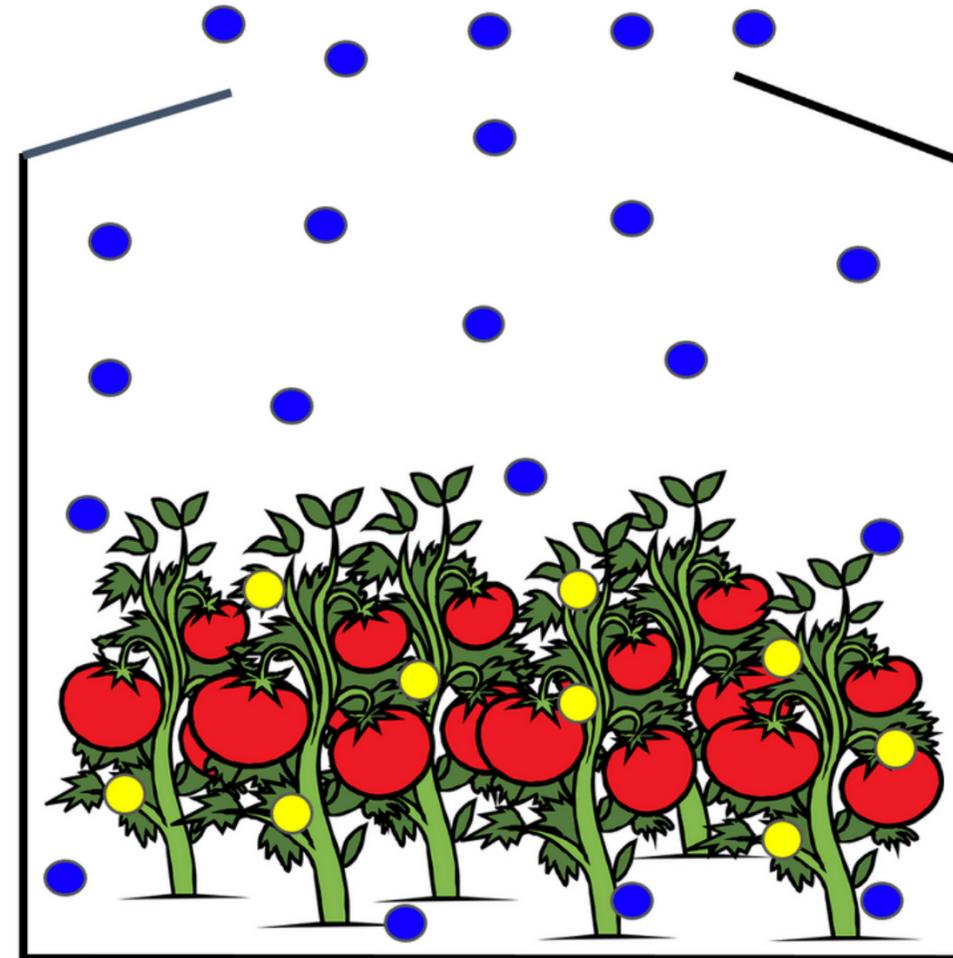


# Traditional CO<sub>2</sub> Gas Enrichment



**Sealed facilities**

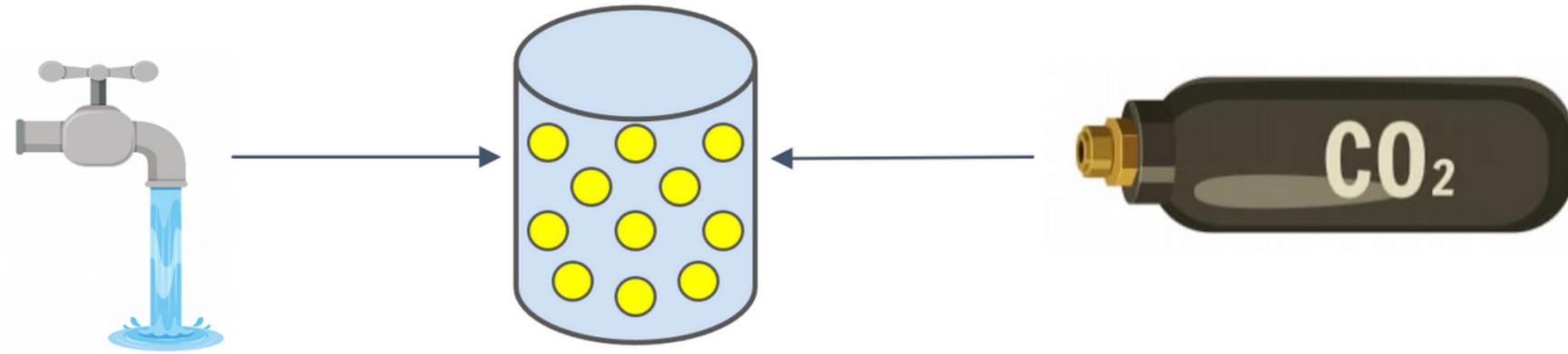
- CO<sub>2</sub> gassing up to 1200 ppm
- CO<sub>2</sub> gas available for plants



**Unsealed / venting facilities**

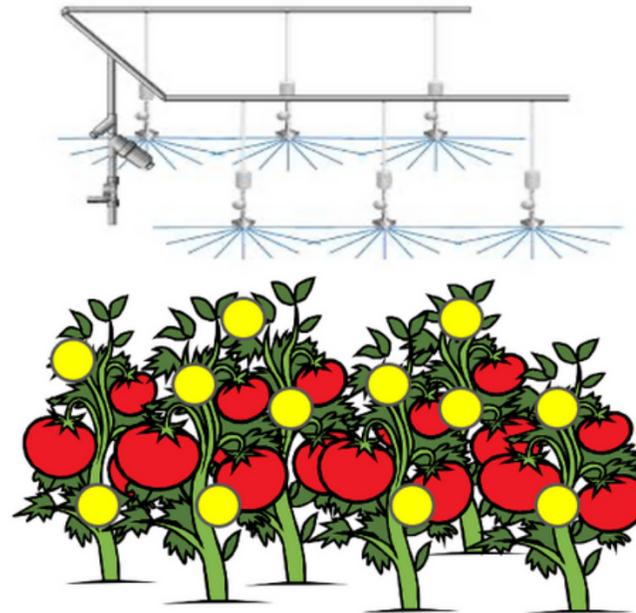
- **Sub-optimal** CO<sub>2</sub> 400 - 600 ppm
- Less CO<sub>2</sub> gas available for plants

# CO2 GRO's Sustainable CO<sub>2</sub> Enrichment



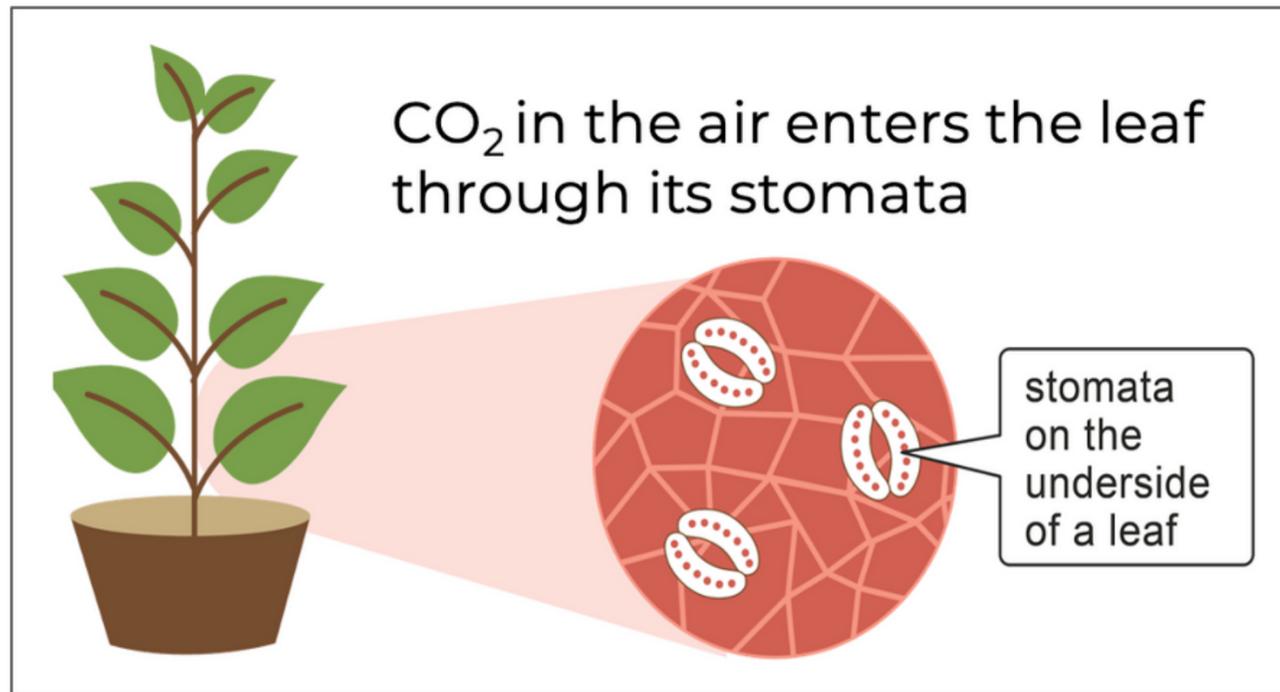
CO<sub>2</sub> Infusion System  
**dissolves** CO<sub>2</sub> gas in water.

Aqueous CO<sub>2</sub> solution is **misted** onto the plants to  
create a **microfilm** on the leaf surface.

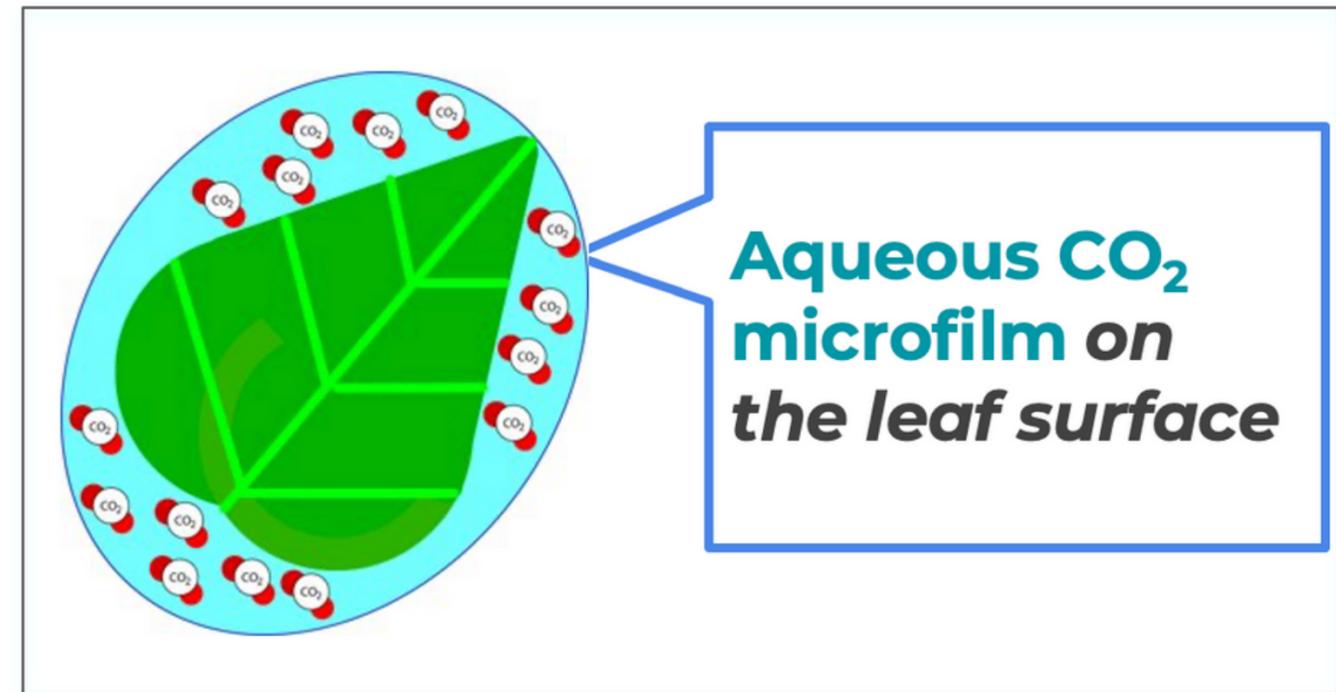


# The Magic is in the Microfilm

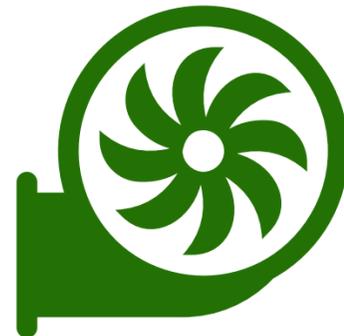
## ATMOSPHERIC CO<sub>2</sub> ABSORPTION



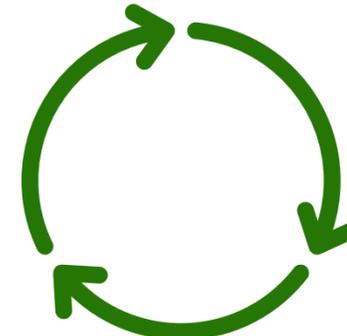
## CO2 GRO's AQUEOUS CO<sub>2</sub> ABSORPTION



Aqueous CO<sub>2</sub> diffuses through the leaf's surface

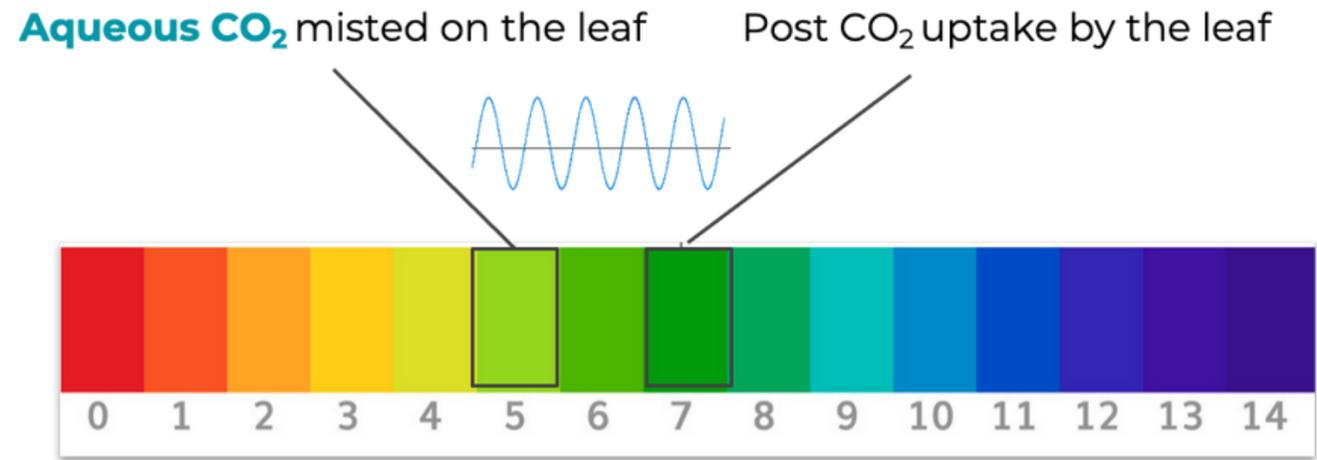


Aqueous CO<sub>2</sub> does not escape through venting



Aqueous CO<sub>2</sub> is provided to plants year-round

# Pathogen Perimeter Protection (PPP)<sup>TM</sup>

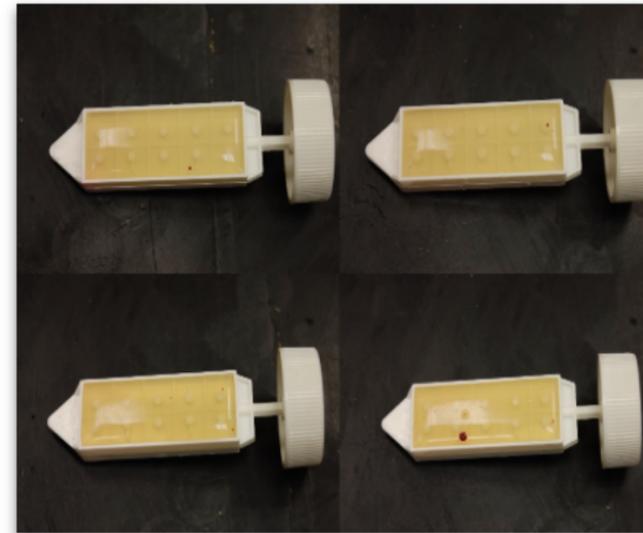


pH fluctuations on the leaf surface suppresses micro-pathogens such as mildew, mold, and bacteria



CO<sub>2</sub> gassing alone does not provide PPP

**AQUEOUS CO<sub>2</sub> MISTED**



**CO<sub>2</sub> GASED & AMBIENT CO<sub>2</sub>**



PPP suppresses the spread of *E. coli* by 99% - as demonstrated by *E. coli* cultures on growth medium paddles at St. Cloud State University

A man in a striped shirt and blue gloves is working in a greenhouse, holding a tomato. The background is filled with green plants and tomatoes.

# People, Planet, and Prosperity



Over 90% less CO<sub>2</sub> usage vs traditional enrichment



Improves air quality for workers



Reduces pesticide and fungicide use



Safe for plants, people and animals if ingested



**30% more yield ≈ doubling profits**





# 30% more yield $\approx$ doubling profits



## Typical Protected Grow Economics

Current production (low-end): 10 kg/m<sup>2</sup>

Selling price: \$1.50/kg

Cost: \$1.20/kg

1 hectare annual production: 100,000 kg

1 hectare annual revenue: \$150,000

1 hectare annual profit: \$30,000

Increase revenue with CO2 GRO: \$45,000 (+30%)

CO2 GRO annual operating cost: \$10,000

**Increase profit with CO2 GRO: \$35,000 (doubling profit)**

# Benefits All Protected Grow Facilities



Tunnel



Net house



Shade house



Indoor vertical farm



Hoop house



Greenhouse

# Lettuce Greenhouse Trial



**Top left:** CO<sub>2</sub> Infusion System



**Top right:** Lettuce greenhouse



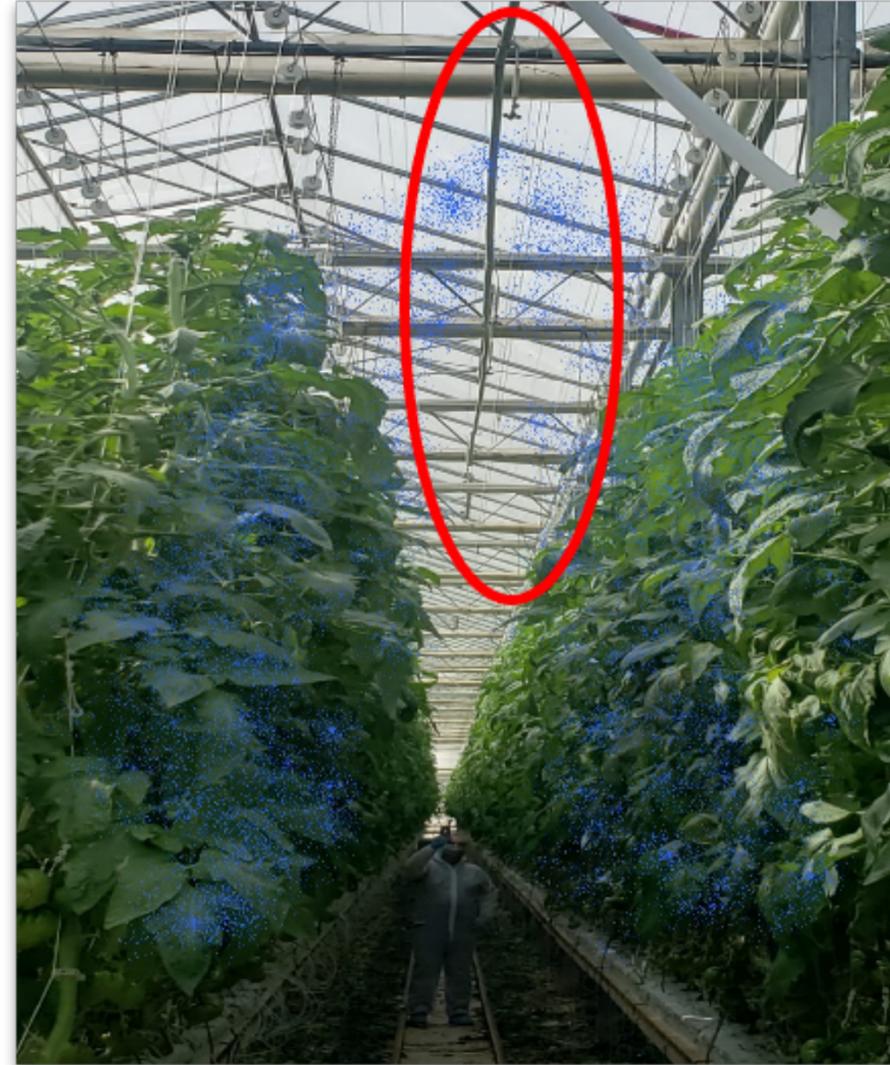
**Bottom right:** Overhead misting

# Microfilm created from top-to-bottom

**Pepper greenhouse**



**Tomato greenhouse**



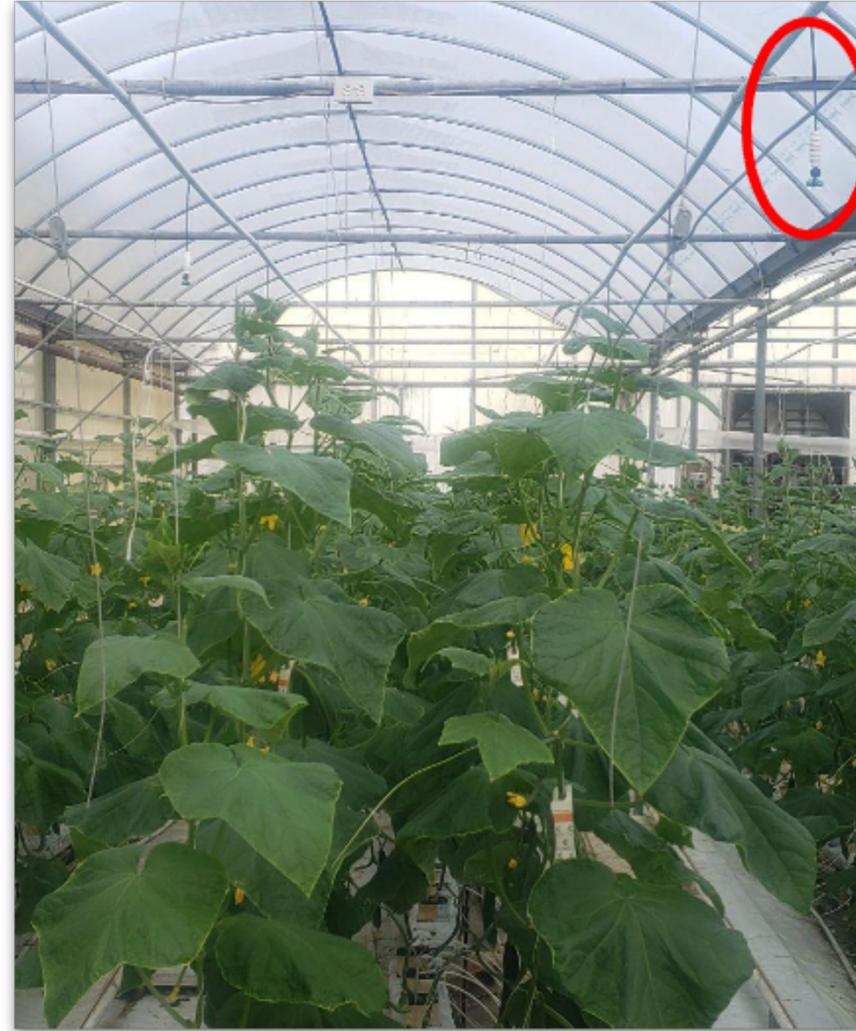
# Cucumber Greenhouse Trial

**60,000 sq ft trial**

**CO<sub>2</sub> Infusion System**



**Cucumber greenhouse**



# Strawberry Greenhouse Trial

**Hydroponic greenhouse**



**Pots on benches**



# Bench Scale Study on Peppers

Metric	Aqueous CO <sub>2</sub>	*CO <sub>2</sub> gassing	Ambient CO <sub>2</sub>
<b>Total Biomass</b>	<b>195 grams</b>	192 grams	132 grams
<b>Fruit Yield</b>	<b>8.5 fruit/plant</b>	8 fruit/plant	7 fruit/plant
<b>Harvest Time</b>	<b>22 days</b>	22 days	25 days
<b>Pathogen Suppression</b>	<b>Yes</b>	No	No

-  20% more pepper fruit production vs ambient
-  10% faster growth vs ambient
-  \*Difficult to maintain 1200 ppm CO<sub>2</sub> when venting

# Technology Trial on Peppers

20% to 30% more yield

Metric	Aqueous CO <sub>2</sub>	Ambient CO <sub>2</sub>
Kilos	49,885	41,977

Half hectare treatment vs half hectare control.



“Purchasing the technology again for a second greenhouse was an easy decision. Over time, we hope to install the technology in more of our greenhouses. We believe that CO2 Delivery Solutions™ can transform our business profitability and provide us with a competitive edge in the Central America pepper production market.”

- Rodrigo Martinez, General Manager, Hidroexpo.

Note: First technology trial delivered 20% increase in pepper production, second trial delivered 30% after technology protocol optimization.

# Technology Trial with Cherry Tomatoes

- Overall kg/m<sup>2</sup> has increased by 10%
- Calibre 27 tomatoes (highest value) are now 3% versus 1% of yield (3x increase)
- Calibre 25 tomatoes (second highest value) increased from 24% to 33% of total yield (37.5% increase)
- Quality defects are down 8%



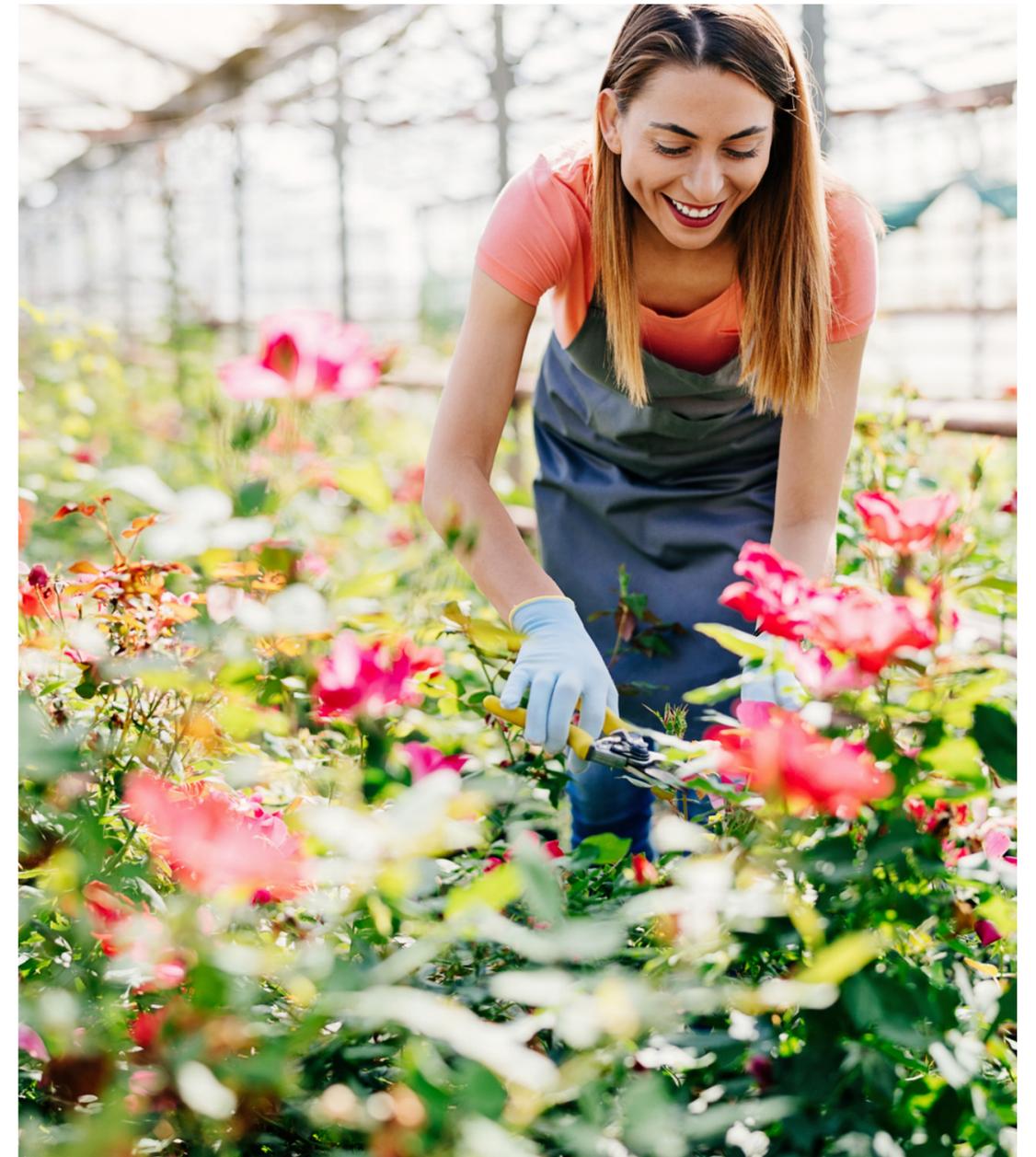
# Technology Trial with Cucumbers

- 20% production increase in the first cycle.
- 37% production increase in the second cycle thanks in part to powdery mildew suppression in the treatment section vs powdery mildew outbreak in the control section.
- Larger cucumber
- Grower did not have to use any traditional powdery mildew suppression techniques
- CO2 GRO's Pathogen Perimeter Protection™ benefit did the trick



# Technology Trial with Roses

- High-grade high value roses realized a 21% production increase
- High-grade roses are over 55 cm in stem length and have 6 cm wide flower buds
- 75% reduction in powdery mildew spread



# Technology Trial with Lettuce

- 7 varieties tested
- Average biomass increase of 10%, with one variety showing a 20% increase



# Current Technology Trials



Leafy Greens



Peppers



Tomatoes



Cucumbers



Roses



Young Plants



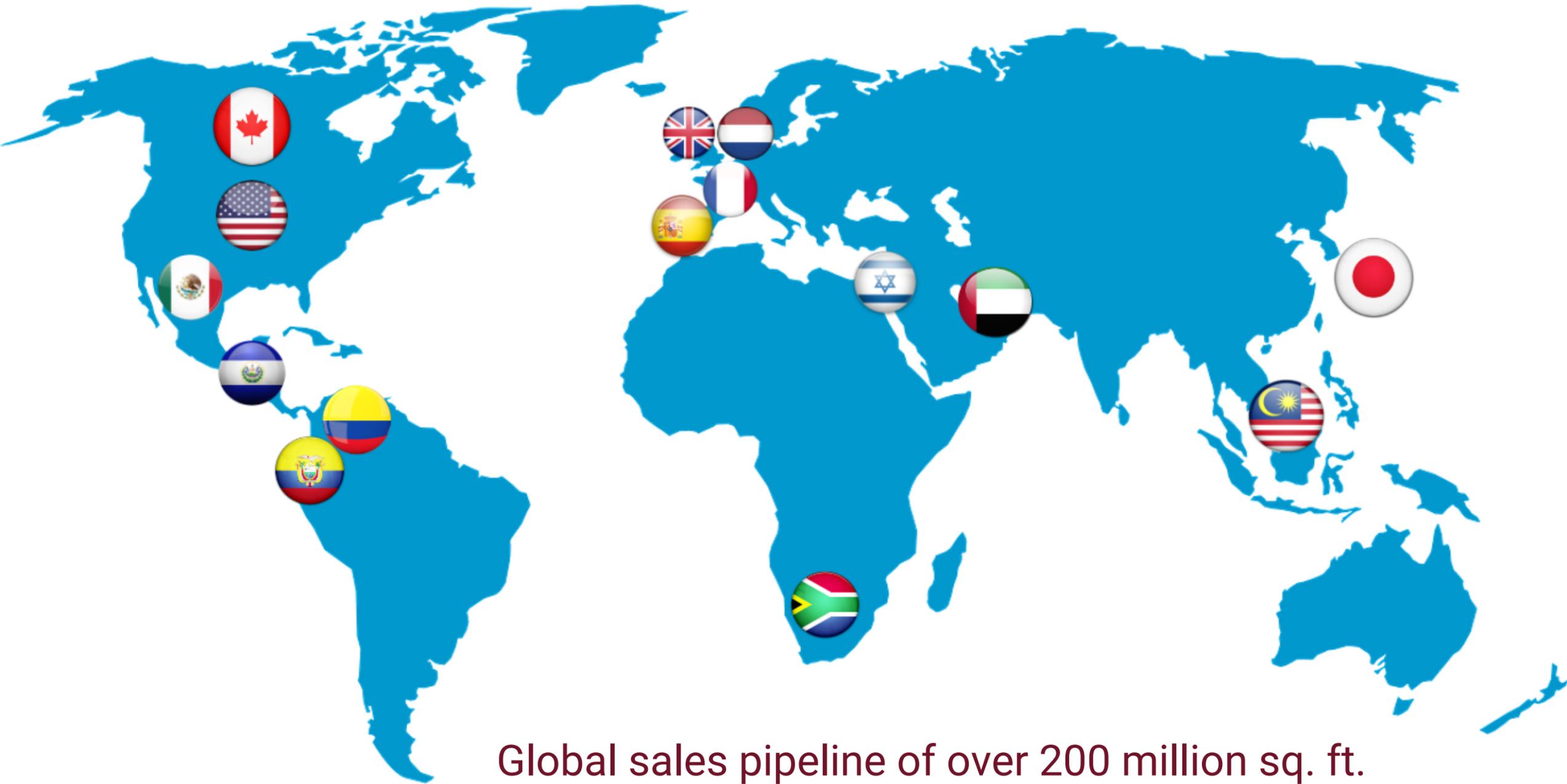
Berries



Pharma Crops

Current trials started or to be started in 2022 with customers around the world

# Current Customers and Partners



Global sales pipeline of over 200 million sq. ft.

# CO2 GRO Inc's Pricing

## **Commercial Technology Sales**

Pricing based on cultivation area

## **Flexible Commercial Terms**

Low down payment; financing options available  
→ the technology pays for itself



# Become a Part of Our Vision



Join our team, in whatever capacity you can.

Install our technology, invest in us, work with us, or give us a like on social media.

 /co2gro

 /co2gro

 /company/co2-gro-inc



## Contact Information

Get in touch with our team to learn more about your specific needs



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