

NOF

natural offset farming

Cooling Differently

ITS ABOUT TIME

1/3 of all food produced for human consumption is lost or wasted globally.

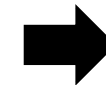
The FAO estimated that post-harvest losses amount to USD 1 trillion annually.



⁴
*According to the FAO



Post Harvest Losses & Food Waste account for 8% - 10% of total Greenhouse Gas (GHG)



**NOF PROVIDES POST HARVEST
TREATMENT THAT EXTEND SHELF LIFE
AND SPARE THE NEED FOR COLD CHAIN**

THE PAIN

“Estimated 33% of all food produced globally is lost, a staggeringly profligate situation that is costing the global economy some \$1 trillion annually” (FAO, 2023)

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The Core Cooling Engine

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LED COOLING



AIR COOLING



WATER COOLING

Portable

↕250mm ↔100mm

Decentralized

No reliance on electricity

Temperature

- Controlled remotely
- Works on demand

Features

- CO₂ enrichment
- Water oxygenation

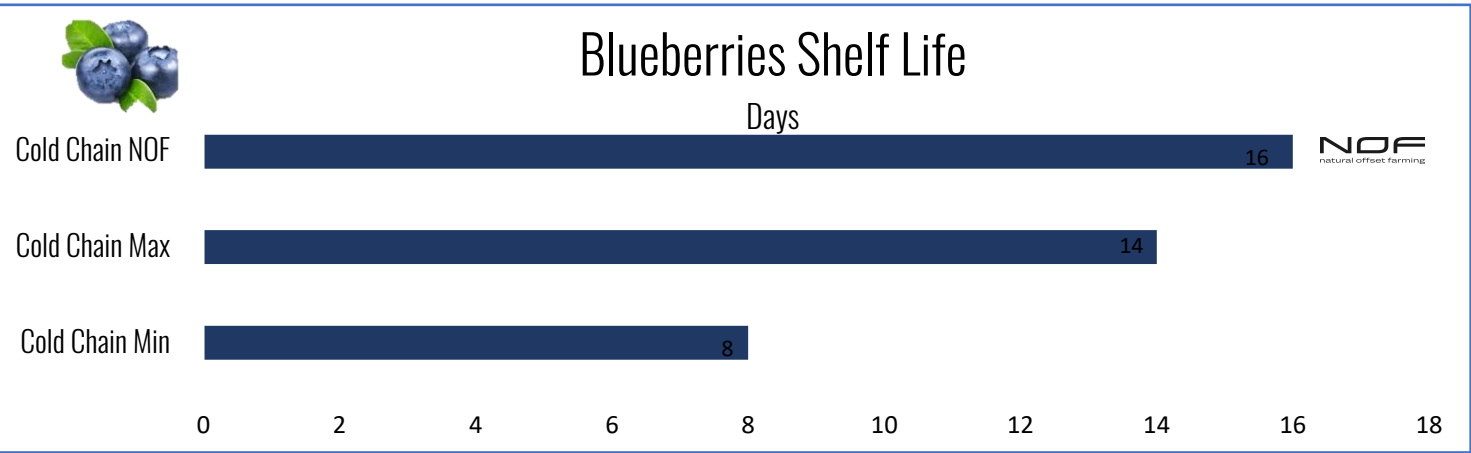
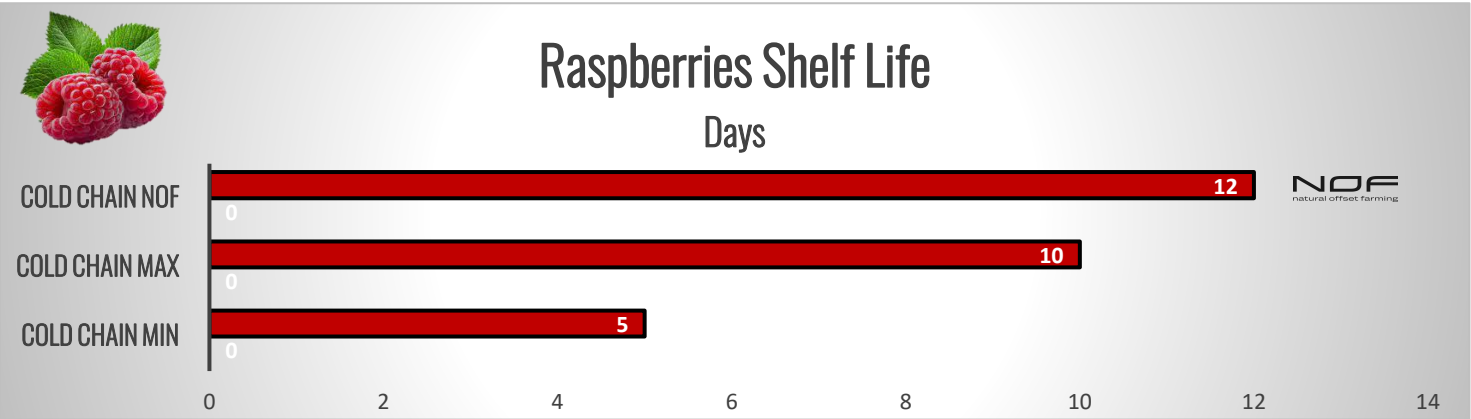
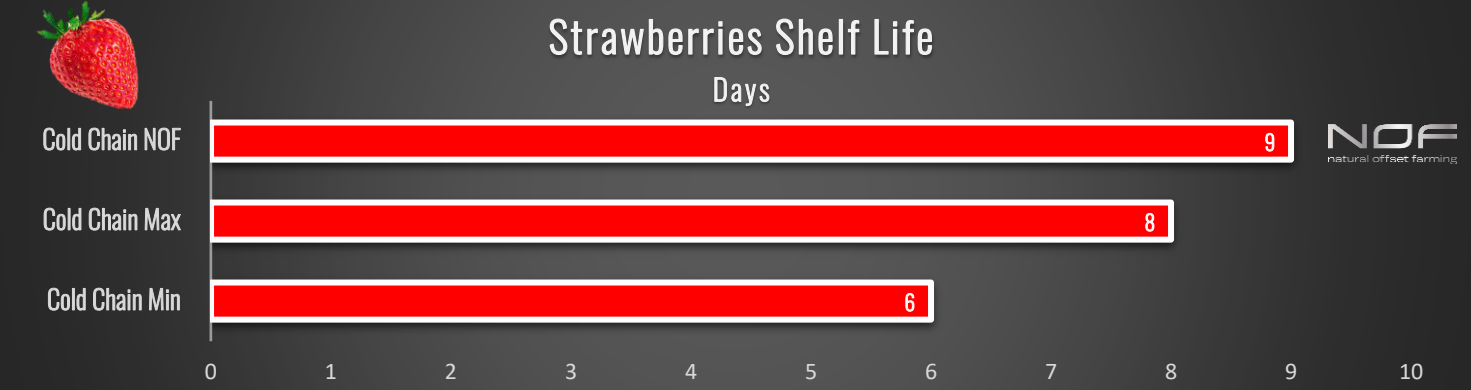
THE PRODUCT

NOFcooling is a patented cooling system that utilizes CO₂ in its liquid state to produce cooling energy, providing a unique and energy-efficient way to cool any medium in precision agriculture (Air, Water, Surface, etc).

Cool (Treat) Where It Has Never Been Possible Before



Value Proposition – It's About Time!



Extending Produce Shelf-Life

CO₂ Enrichment



Manage Growing Cycles and Harvest Date



Export Enabler





The System – In Field Triple Treatment



The System – In Field Triple Treatment



Triple Treatment – Maximum Effect

- ✓ On Demand Cooling – Automatic Temp Control
- ✓ CO2 Enrichment – High Concentrations
- ✓ Lower Humidity inside the box

Low OPEX, Low CAPEX

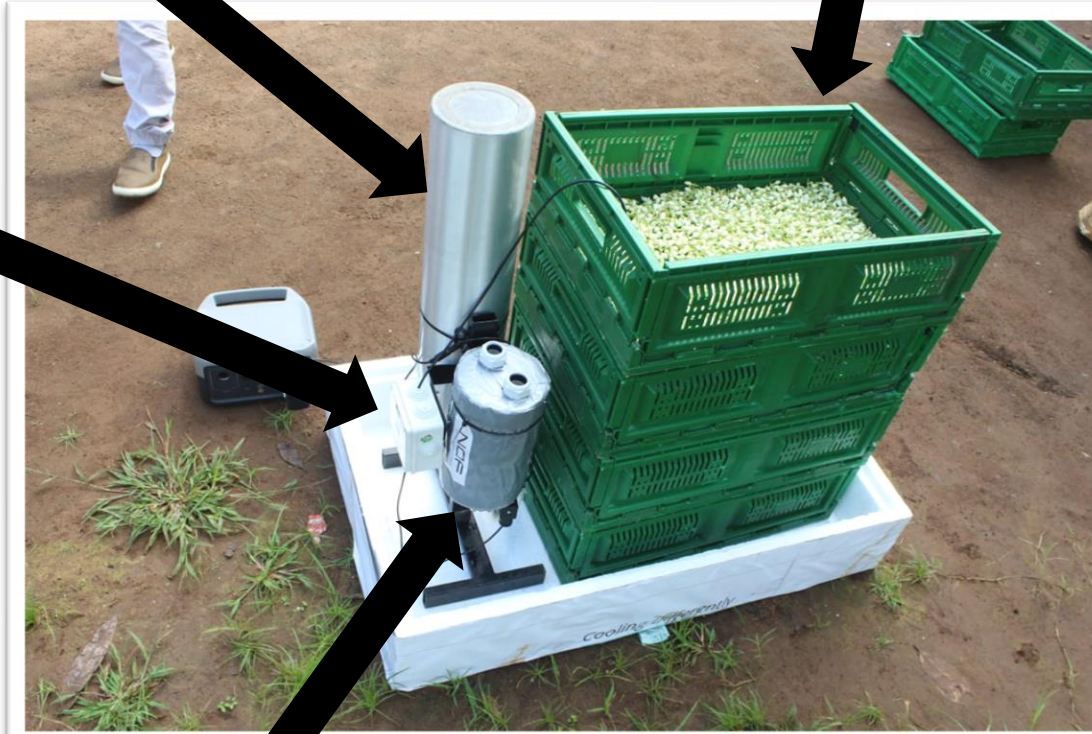
- 1-3 hours intervention at the field
- No additional changes in supply chain
- 2-7 days extension in shelf life
- Reduction of up to 35% of food loss
- Chemicals Free

The Product – In Field Triple Treatment

CO2 Canister

Stackable Crates

Control System



NOFcooling

Thermal Unit



Tailor Made Solutions



500 KG Lychee @ Bihar, India



240 KG Blueberries @ Jalisco, Mexico

The Solution – In Field Triple Treatment



Treated
with
NOF

Not Treated

After 48 hours

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The Product – In Field Triple Treatment



Treated
with
NOF

Not
Treated

After 72 hours

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The Product – In Field Triple Treatment



Treated
with
NOF

Not
Treated

After ⁹⁶~~72~~ hours

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The Product – In Field Triple Treatment



NOF



Control

The Product – In Field Triple Treatment

NOT



NOF



After 72 hours

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The Product – In Field Triple Treatment

CONTROL

NOF

After 6 days

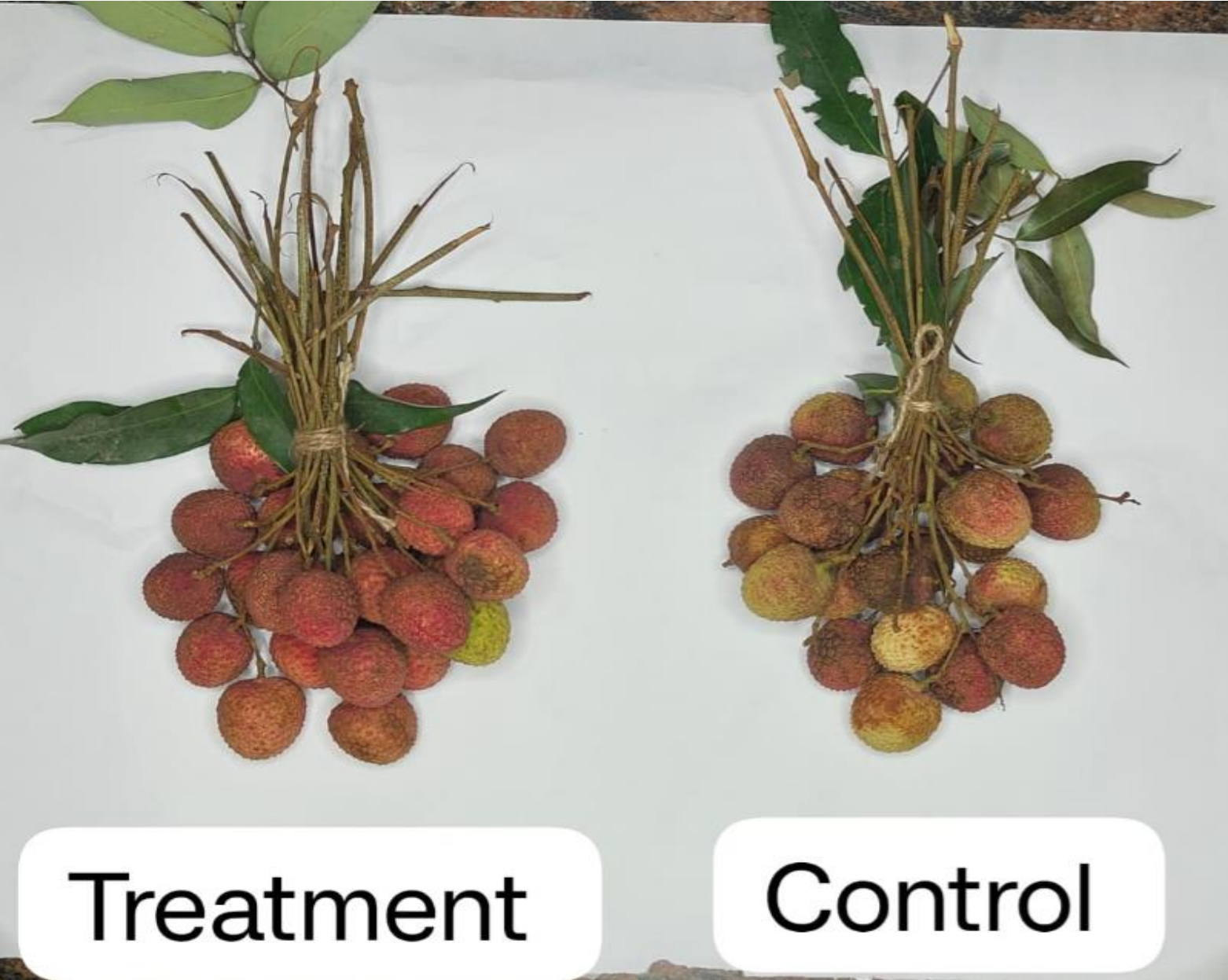
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The Product – In Field Triple Treatment



The Product – In Field Triple Treatment



2 hours, in-field CO₂ cooling @ 18°C
Picture is taken 4 days after trial

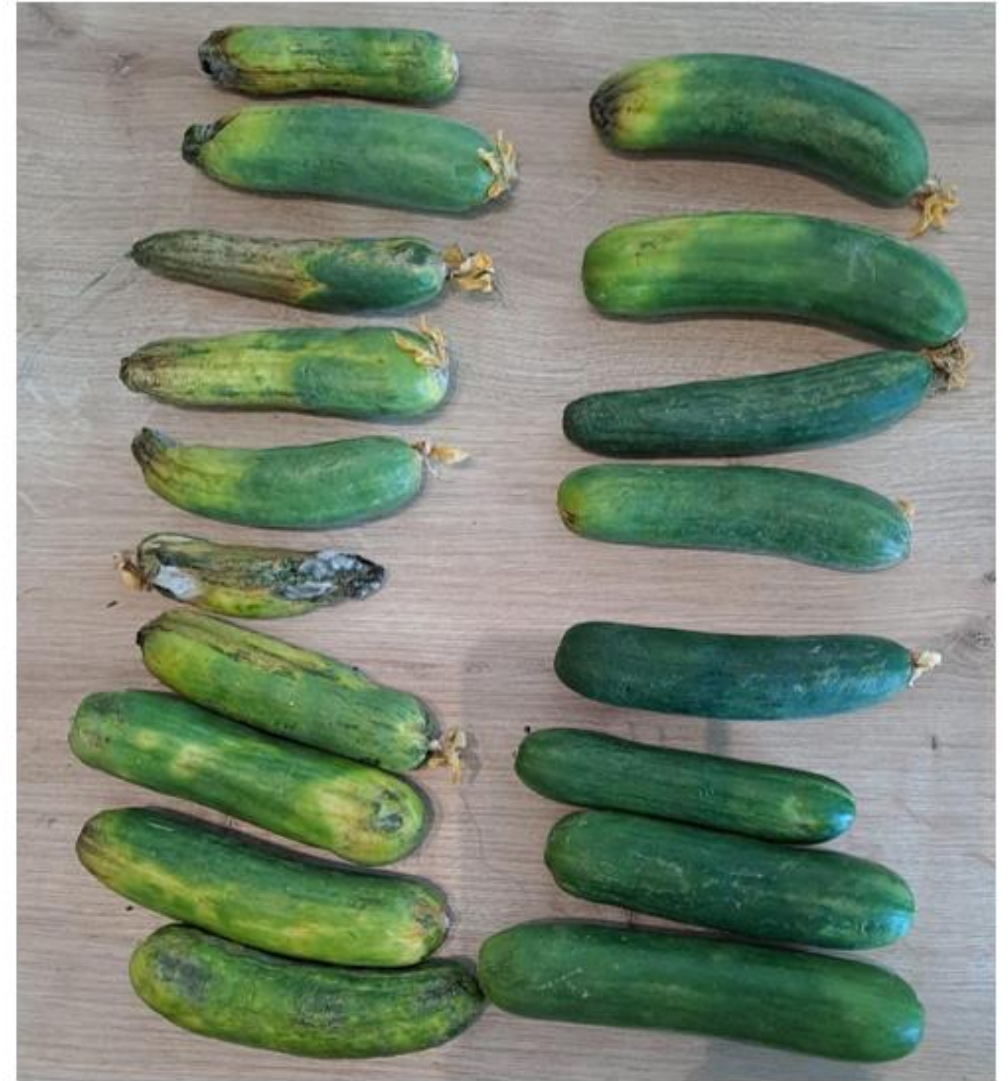


Control

vs.

Treated

2 hours, in-field CO₂ cooling @ 18°C
Picture is taken 9 days after trial

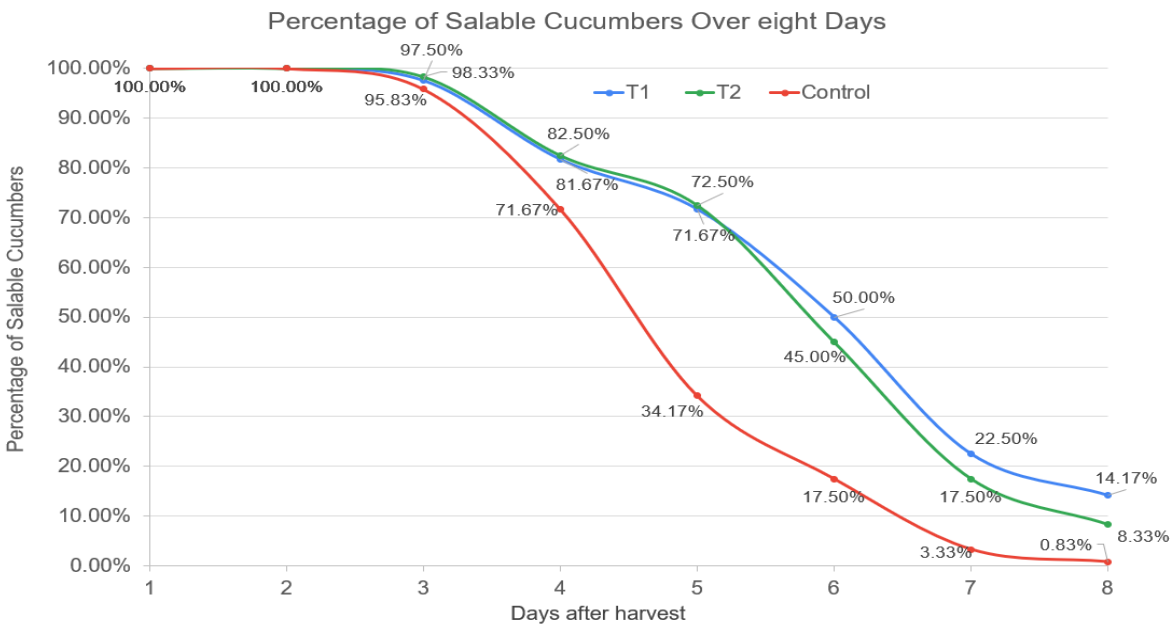


Control

vs.

Treated

RESEARCH EXAMPLE



Analysis indicate a ~149% increase in yield productivity (area under the curve).

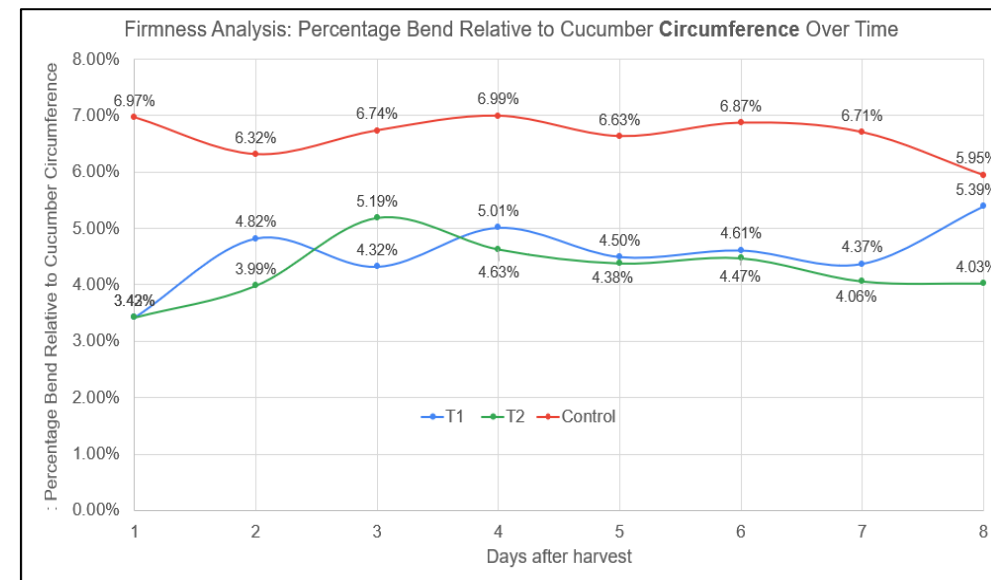
This data translates to shelf life extension and increase in marketable quantities, meaning the farmer/aggregator is becoming an exporter.

Indicate potential additional income of 20% - 30%

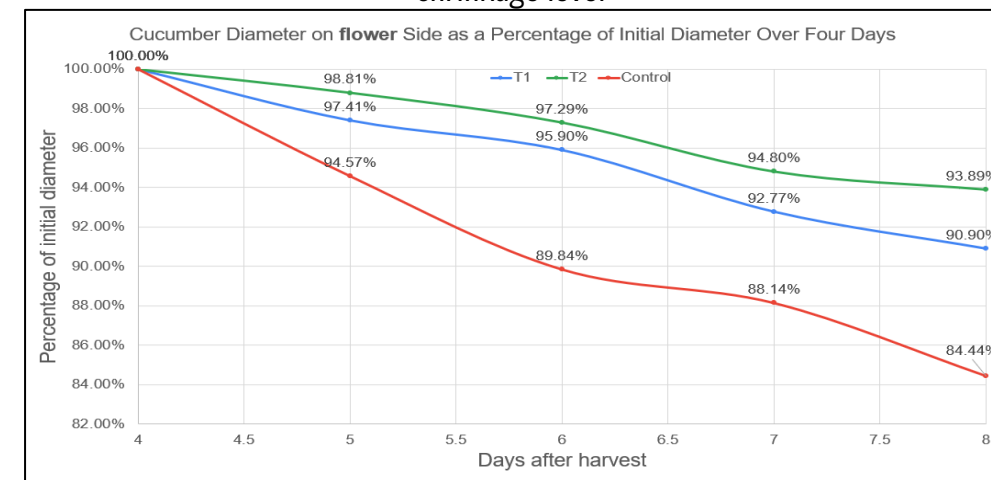
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Leading indicators of rotting Cucumbers

Band test indicate the firmness level



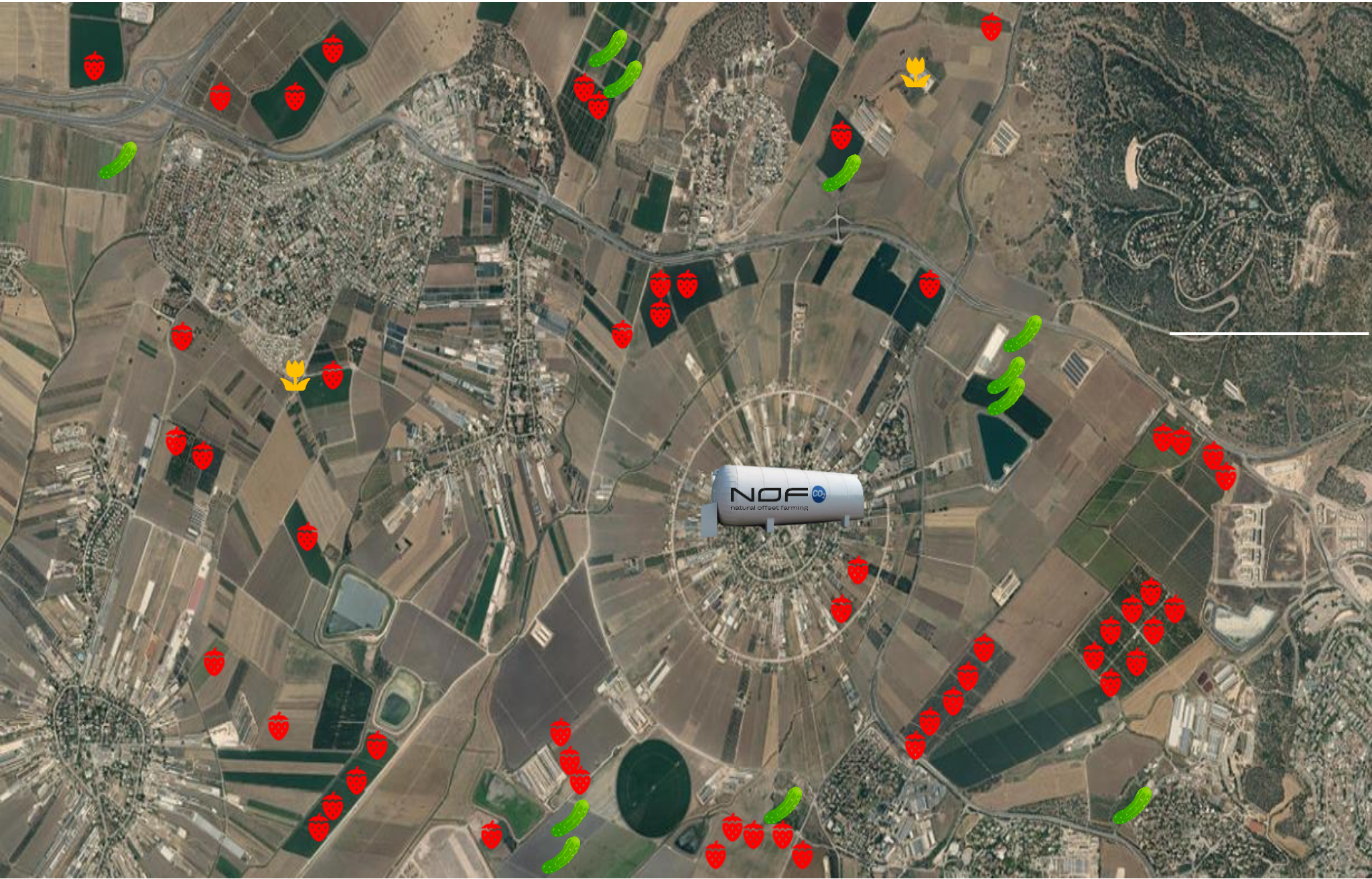
Diameter test indicate the shrinkage level



7.5% increase in comparable shrinkage level



IT'S ABOUT THE BUSINESS MODEL

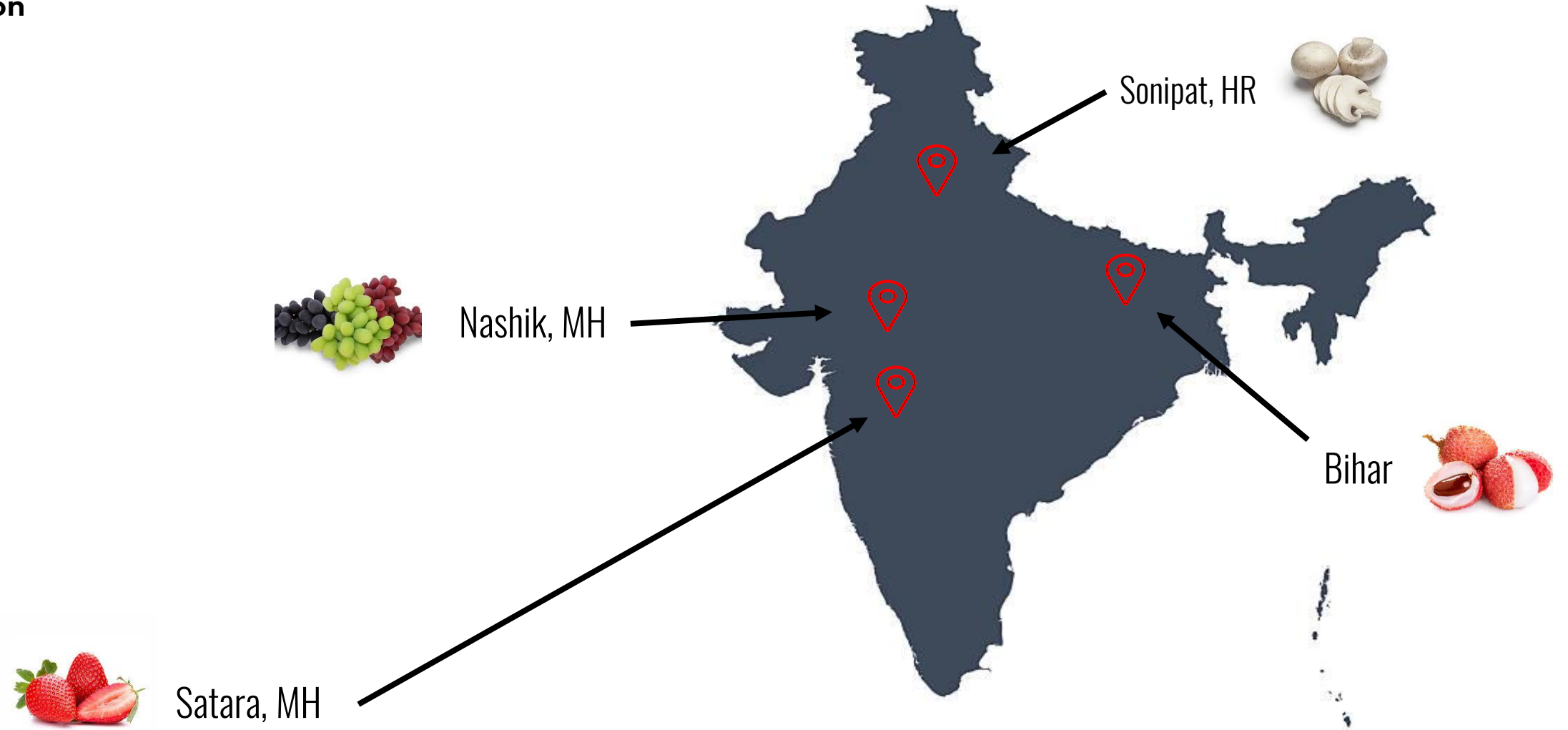


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CLUSTER'S →
CRITICAL MASS OF
FARMERS

LOCATIONS

Vision



NOF's Logistical Scheme – CO2 as a Service



Farmers / Traders

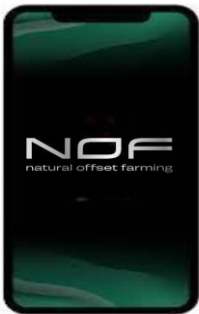


NOF Branding/
White Label

180-350 Rs. / 1 Treatment



1 treatment = CO2 in the field



NOF Managing app:
CO2 supply chain management
Operation
Charging

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CO2 REFILLING

Cluster Center



5-20 Tons Storage
Operated by NOF

Climate Impact

If food loss and waste were its own country, it would be the world's third-largest CO_2 emitter — surpassed only by China and the United States. (FAO, 2023)

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Climatic Impact of NOF - Food Losses in Tomatoes

50M Ton/Year Tomatoes Treated By NOF



10% ↓ Losses Reduction

1.8 kg CO₂e/kg (Carbon Footprint)



**9,000,000
Mt CO₂e Reduction**



Sky Is the Limit



ISHAY HADASH
CEO



YONI BEN ZAKEN
CBO



YAIR HADASH
COO

- We will reduce post harvest losses in the Global South by 5% or more
- NOF will serve 1 million farmer by 2027
- We are going to reduce carbon footprint by 5 Million Tons/year by 2028



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