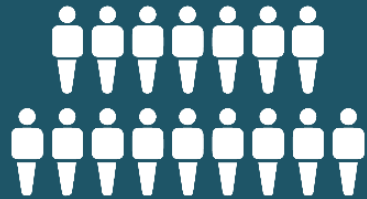


**Lifelab**

B i o D e s i g n



2050



+9 billion

70%



Demand



Fresh Food

Supply





## WHY IS SUPPLY DECREASING?



DIMINISHING  
ARABLE LAND



FRESH WATER  
SCARCITY



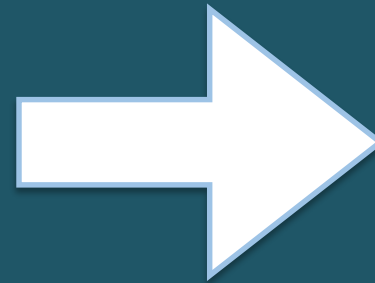
SEASONALITY &  
PRICE  
FLUCTUATION



PESTS



USE OF  
PESTICIDES

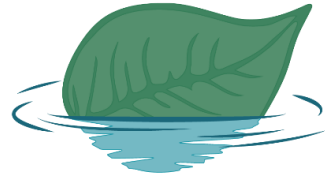


CROP LOSSES

NO  
PREDICTIBILITY

LOW PROFITS

Mass Exits



**Lifelab**  
B i o D e s i g n

**Building a Sustainable Global Food and  
Medicine Supply for the Future**



The Solution

# Commercial Indoor Vertical Farming Systems

Modular, Climate-Controlled, IoT-Automated,

**X30 Yield/M<sup>2</sup>**

compared to a  
greenhouse

**-95% Water**

**-75% Labor**

**Rapid Payback**

GROWS



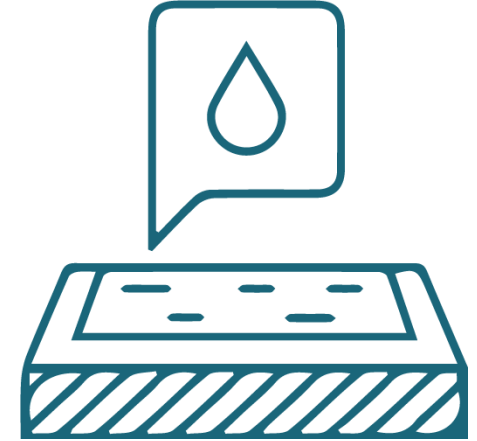
Days/Yr.

**NO**

Pesticides  
Guesswork  
Crop Losses



## Case Study:



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# Greenhouse Vs. *LiveCube*<sup>TM</sup>

Koura, North Lebanon



Before









After









Over 70 Varieties Successfully Grown and Sold











## In-House Incubation

Rapid, contamination-free germination









## Comparison Recap

### Traditional Greenhouse

224M<sup>2</sup>

~ 6,000 - 9,000 Plants/Yr.

~ 1,100,000 Liters/Yr.

3 employees

>30%

Production Area

Production Volume

Water Consumption

Labor Requirement

Crop Losses

### *LiveCube*<sup>™</sup> Vertical Indoor System

84M<sup>2</sup>

~180,000 Plants/Yr.

~72,000 Liters/Yr.

2 employees

~1%



Products:

## LiveCube™

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Over 200 Varieties of Salad Greens, Herbs, Micro greens, Saffron, & Strawberries

Modular Vertical Farming Hardware + Proprietary OS

Hardware 1

## OmniHive™

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Vines, Bushes, Stalks, Tubers, Dwarf Fruit Trees, Medical & Cosmetic Plants

Modular Vertical Farming Hardware + Proprietary OS

Hardware 2

## Jarvis™

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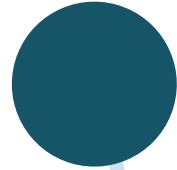


Cloud-connected Production & Inventory Management Dashboard (SAAS)

Software

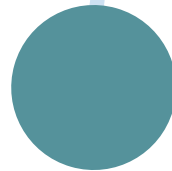


## Turnkey Solution



### Production

- Production Equipment Installation & Starting Supplies Provision



### Operational

- Ongoing Support, Maintenance, & Software upgrades
- All Consumables Provision

### **Add-on Automated Management Services**

- Production Management (SaaS)
- Produce Sales Management (SaaS)





## Benefits:

- Modular, scalable, economically feasible technology.
- BIG savings in water and fertilizers. Low power consumption.
- Immediately applicable: in strategy, and physical deployment
- Requires no infrastructure investments from the government
- Proudly made in Lebanon: requires no foreign expertise or workforce
- Will exponentially boost Lebanese agro-production output in terms of quality and volume
- Will allow Lebanese producers to supply the surrounding region with fresh, high-quality, off-season produce, year-round, at fixed prices and a fraction of the logistical cost and carbon footprint
- Will seamlessly plug & play into the medical/pharmaceutical cannabis industry immediately upon legalization, making government regulation & control much easier via Blockchain technology



# Target Markets

Hydroponics & Precision  
Agriculture Equipment

**\$28B**

Fresh Food  
Imports

**\$115B**

Herbal Medicine  
Industries

**\$111B**





## Competitive Advantages

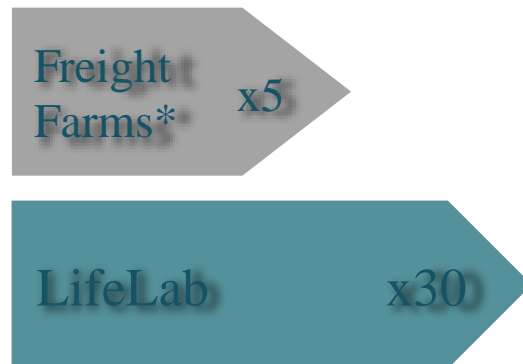
### Set Up Cost (per plant site)



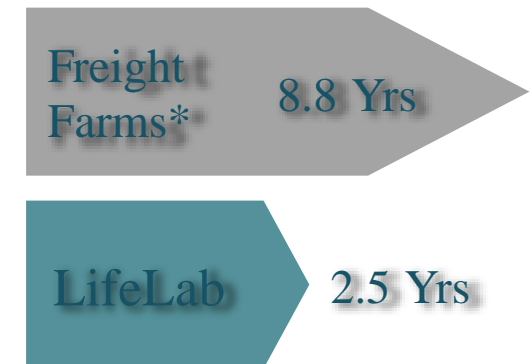
### Power Consumption



### Production Volume/M (Compared to Greenhouse Production)



### Payback Period





[www.LifeLab.ag](http://www.LifeLab.ag)



# LifeLab

B i o D e s i g n