Year-Round Food Production (Food Sovereignty) in MKE

Should we consider a new generation of indoor-food growing for MKE?

The Freight Farms hydroponic growing concept

An automated technology for
localized, indoor, healthy, *immune-boosting* food production

Heating, air-conditioning, lighting & nutrient dispersal is fully automated.

The *Greenery*

The Freight Farms
Self-contained 40-ft growing facility
www.freightfarms.com

Output: 800 - 1,000 heads of lettuce per week

Optimum photosynthetic lighting system

Greens, herbs and vegetables are grown hydroponically on vertical racks

LIFESTYLE

The Operations Center

Temperature, lighting, and nutrients are controlled from here

Lighting system

Movable growing racks and red-blue lighting system

An opportunity to teach kids about growing healthy food

Establishing seedlings

Tending to the growing racks

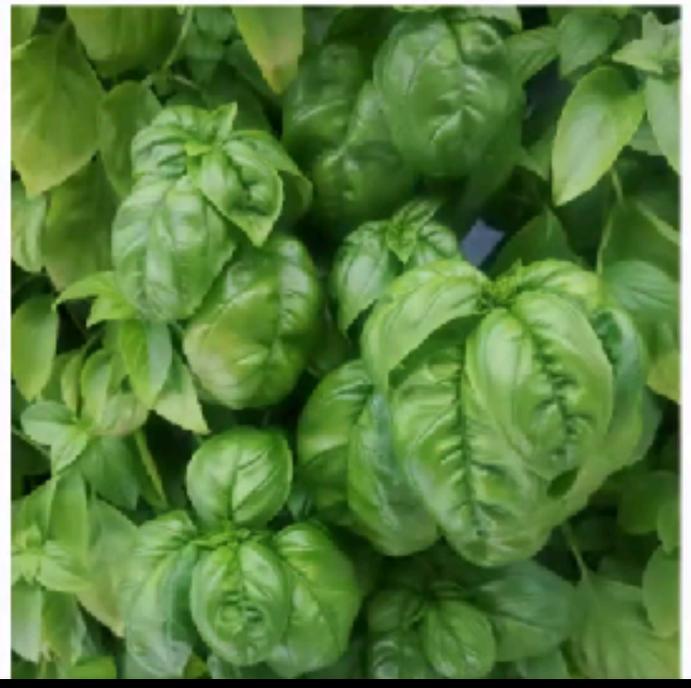
A case study

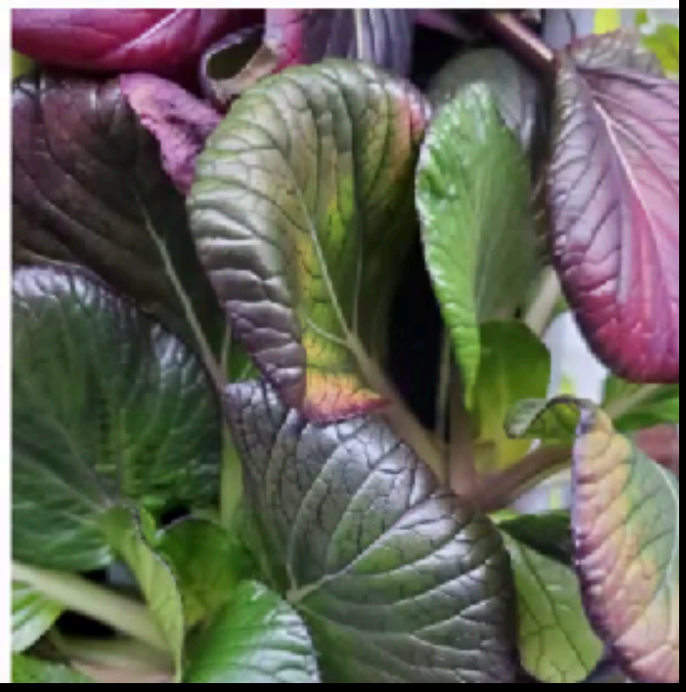
AGILITY IN BUSINESS

Mario had big plans to target local restaurants… until COVID hit.

- Initially focused on restaurants, with some business development in CSAs and direct-to-consumer.
- With COVID, Mario's direct-to-consumer business with Market Wagon has been most successful.
- Experimenting with crops—which are in high demand, which are cost-effective?
- With Market Wagon, has the most success with herbs, especially basil.
- Mario's ability to pivot quickly with the Greenery has been essential.

Mario at the Market Wagon distribution center





“We really want our seniors and children to take part in this ground-breaking program and learn about futuristic farming. Hydroponics is the way of the future, and we are proud to be on the cutting edge as the first municipality to purchase and operate a Freight Farms hydroponic system.”

– Mayor Dave Fried

Image | Robbinsville Hydroponic Farm on Facebook

Provide a local CSA option and direct-to-consumer marketing

Very Local greens and veggies production

www.freightfarms.com

In Milwaukee, greens from California sell at MetroMart and Outpost for @5-$10/lb., and shelf life is severely limited.

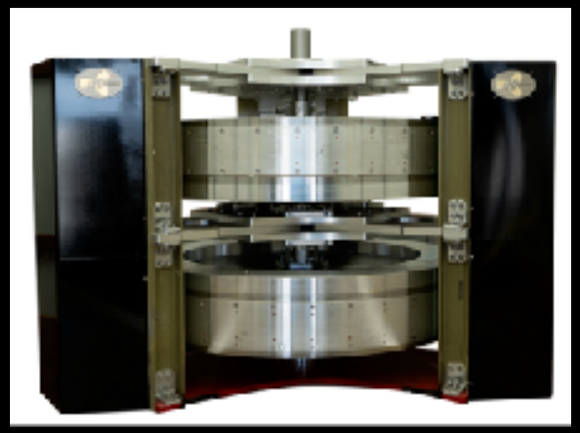
Drive-up CSA and daily direct-to-customer purchase

Advantages of local food production

- Low carbon footprint
- Local employment and jobs
- Longer shelf life
- Healthier food
- Fresher
- Minimal transportation

Advantages of hydroponic food production

- Low carbon footprint, operates 365 days/year
- Provides strict control of nutrient inputs and growing environment
- Local employment and jobs
- Longer shelf life
- Fresher
- Avoids air and soil contamination
- Enables more efficient and precise use of water and energy



Renewable, magnetic propulsion energy to power the growing system 24/7 and weather independent

Economic Factors of a Freight Farm container system:

Expenses:

- Purchase price: $115,000 plus shipping (@$6K)
- Energy cost: $650/month
- Labor: 20 hrs/wk
- Water: 5 gals/day
- Nutrients?
- Marketing/Permits?
- Rent?
- Loan payments?

REVENUES:

- Individual investments/loans/grants
- USDA Grant, Green Bonds, etc.
- Local grants (Greater MKE Fdn?)
- Sale of product: restaurants, CSA, online direct to customers, wholesale to supermarkets

Consider:

- Our food system is vulnerable to sudden climate change impacts
- Our food is often contaminated by toxic air, soil and water
- Milwaukee residents in the city suffer from “food deserts”
- Most of our food (organic included) is shipped long distances

Questions to be asked re: ***food sovereignty***

- What happens if transportation becomes compromised?
- What happens if our food becomes unaffordable?
- How to do grow food locally and cost-effectively during the winter months?
- Are hydroponics and aquaponics practical solutions?

Should we develop our “PLAN B” NOW for local, year-round food production?

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See also: www.freightfarms.com