

Vertical Farming and Entrepreneurship in Food and Urban Agriculture



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1:10-2:10 PM





Who we are and what we do



- ▶ Social enterprise dedicated to increasing the capacity for food production in the city by giving residents access to the tools, education and resources needed to grow more efficiently, and spur a hyperlocal food economy.
- ▶ School Garden Management and Classes, Community Garden and Urban Farm Site Management, CSA, Restaurant Sales and a Rooftop Retail Garden Center
- ▶ By the numbers for 2017:
 - 20+ Sites, 1+ Acre of total space, Grew and Distribute 11,200 lbs. of produce
 - 25 Member CSA, and 4 restaurants



NWF EcoLeaders Grant -2013- JO Wilson Elementary School



International Projects

- ▶ Panchgini, India - 2 acre trial plot (2015)
 - ▶ Commercial Strawberry Farm
 - ▶ 96% reduced water use
 - ▶ Eliminated spraying of Copper Sulfate
 - ▶ 4X yield from same footprint, ½ labor



- ▶ Medellin, Columbia (2017/2018)
 - ▶ Vertical School Garden - Fundacion Marina Orth
 - ▶ Workshop Series for farmers, urban residents and students - Botanical Garden of Medellin



School and Non-Profit Farms



Rooftop Farming @ Nationals Park - Crate Farming

- ▶ 3 zones with 2000 + fabric root pouches in Milk Crates - 4200 sq ft.
- ▶ Filled with blend of lightweight, rooftop growing media
- ▶ Irrigated by micro-drip system with water soluble nutrient supplement as needed
- ▶ Weight load is a primary concern



H St. Farms

- ▶ Garden Center in NE, DC
- ▶ Crop Production, Event Space, Garden Classes, Wholesale & Retail Sales, Showroom for Design/Build
- ▶ 3 Rooftop Greenhouses- 1 dedicated to various vertical growing methods



Crop Selection - Find your niche!

- ▶ Strawberries/ Pineberries
- ▶ Herbs: Speciality Mint/Basil, etc.
- ▶ Heirloom and specialty tomatoes
- ▶ Hot peppers
- ▶ Bell Peppers
- ▶ Ground Cherries
- ▶ Rosemary
- ▶ Lettuce
- ▶ Kale
- ▶ Coleus (Ornamental)



- ▶ Nasturtiums, marigolds and other edible flowers
- ▶ Green Onions/Chives
- ▶ Cilantro
- ▶ Thyme
- ▶ Sage
- ▶ Oregano
- ▶ Spinach
- ▶ Eggplant
- ▶ Collard
- ▶ Ethnic crops
- ▶ Cucumbers



Zip-grow Towers and Farm Walls

- ▶ Intended for controlled environment or wall-mounted use
- ▶ Recirculating hydroponic system
- ▶ Require wall or rack for mounting
- ▶ <1 sq ft. footprint/tower
- ▶ Great for herbs and leafy greens
- ▶ Growing media made from recycled plastic- reusable (still require plugs)
- ▶ Can be used for live-market sales



Tower Garden

- ▶ Suitable for indoor or outdoor use
- ▶ Recirculating, hydroponic growing system
- ▶ 5 sq ft. footprint of tower
- ▶ Up to 11 tiers high= 44 plants/tower
- ▶ Made from hardened polyurethane
- ▶ Requires rockwool for starter plants, but other media
- ▶ Water acts as ballast for system: free-standing
- ▶ Frequently used by restaurants for on-site gardens



Why Set Up Farms for Education?

- ▶ Interactive learning with futuristic technology
- ▶ Year-round laboratory
- ▶ Multi-level training (all ages/ community involvement)
- ▶ Therapeutic
- ▶ Foster environmental stewardship
- ▶ Agri-business training opportunity/ Fundraising
- ▶ Long term investment





CSA and Finished Food Products



Questions?



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