

Jobenomics National Grassroots Movement
focus is on mass-producing small businesses and jobs.



Controlled Environment Agriculture (CEA) Program

For Under-Resourced Urban & Rural Communities

Chuck Vollmer

Jobenomics Founder & President

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Controlled Environment Agriculture (CEA)



- A process of growing plants inside a grow room or greenhouse.
- CEA allows a grower to maintain light, carbon dioxide, temperature, humidity, water, pH levels, and nutrients to produce crops in ideal growing conditions with maximum yields.
- Jobenomics' CEA program is focused on mass-producing agribusinesses, micro-farms and agricultural-related jobs.

Ailing U.S. Small Farm & Food Manufacturing Industries

*Source: U.S. Department of Agriculture,
U.S. Bureau of Labor Statistics*

	Employment		New Jobs	Percent Growth
	Year 2000	Latest Data		
Hired* Farm Workers	1,332,000	1,344,000	12,000	0.9%
Food Manufacturing Jobs	1,562,500	1,628,200	65,700	4.2%
Private Sector Nonfarm Jobs	110,246,000	128,068,000	17,822,000	16.2%

Farm & Food Jobs % of Total 0.4%

**Not including family farmworkers that decreased by from 8 million in 1950 to 2 million in 2000. Today, small farms are in crisis with fewer people entering the industry and worsening economic conditions.*

CEA can create tens of thousands of micro-businesses and jobs in under-resourced rural and urban communities.

Under-Resourced Rural & Urban Areas

8,700 Designated Opportunity Zones

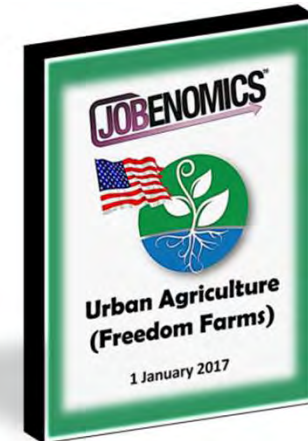
The poorest 12% of all U.S. census tracts



Part of the 2017 Tax Cuts and Jobs Act, Opportunity Zones promise positive social impact by driving billions of dollars in long-term investment into under-resourced urban and rural census tracts.

Jobenomics CEA Partnership

- Team: Jobenomics is teamed with ACTS Freedom Farms of America.
- Mission: Provide a solution to food shortage through self-sustaining and supportive live-work communities.
- Vision: Provide quality foods in harmony with the global environment, while empowering individuals to become an important partner in high-tech controlled environment agriculture.
- Strategy: 1) home ownership combined with an agriculture career, 2) corporate owned indoor commercial growing operations and 3) train high-tech controlled environmental agricultural farmers.



ACTS



ACTSFFA has secured commitments from three Opportunity Funds that have \$150 million available for our CEA programs.

AG Core & Micro-Farms

- Initial cadre will be mostly veterans (vetting and financing considerations) but will also include non-veterans.



**Converted
Warehouse
With Controlled
Environment & Vertical
Farming Systems**



- AG Core is the corporate team that manages and trains new recruits until they are capable of assuming the responsibility to run entire operation.
- Each micro-farm will consist of the land and a leased greenhouse that will be equipped and supplied by AG Core.



**Secure Produce On
Demand (POD)
Greenhouse**

**GAP, GHP, FSMA
Compliant Greenhouse**



Base earnings will be \$35,000 to \$40,000 annually with bonuses and profit sharing upon completion of first year.

California 1200-Acre Freedom Farm

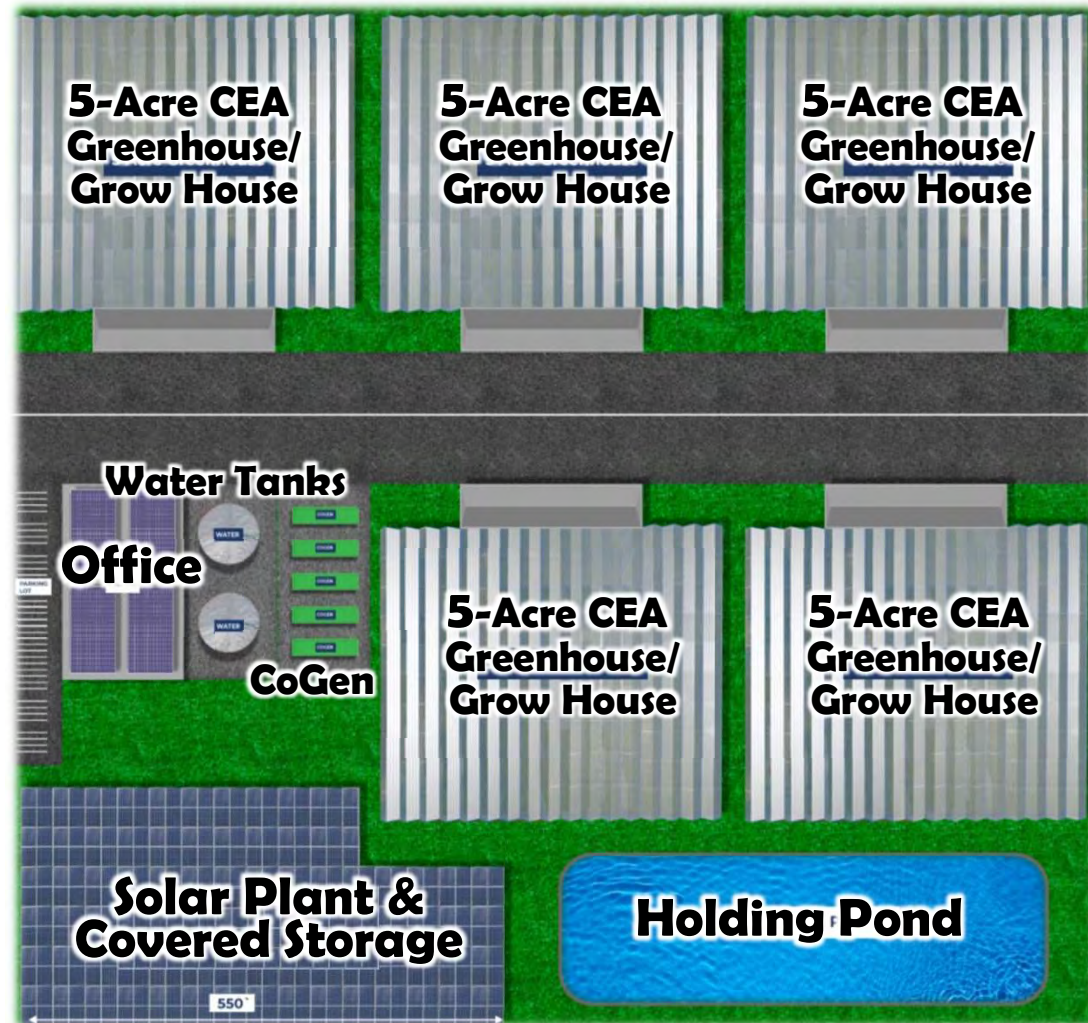


Designed by ACTSFFA/Oculus for veteran-owned businesses and homes.



2.6 million sq. ft. of indoor controlled environment agriculture, greenhouse village, hotel, farmers market, winery, production and distribution facilities, commercial/community/education/worship centers, and 300 single-family homes on 2-acre lots.

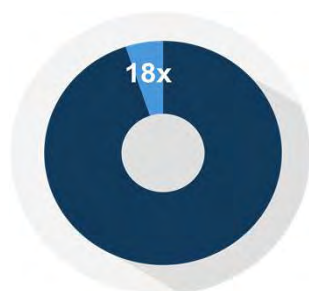
50-Acre Controlled Environment Agricultural (CEA) Rendering



The Jobenomics/ACTSFFA/PowerGrow team is working with leading greenhouse, grow-house and CEA vertical and hydroponic suppliers.

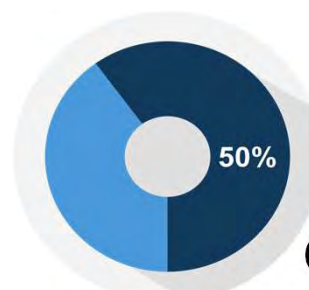
5-Acre Greenhouse

Large Scale Jobs Engine



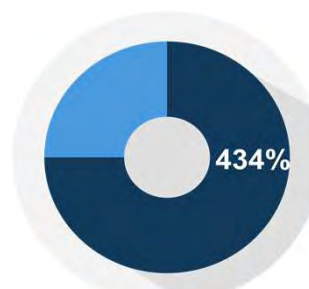
Acre Comparison

Indoor: 5
Outdoor: 93



Revenue Comparison

Indoor: \$3,389,829
Outdoor: \$2,259,886



EBIT Comparison

Indoor: \$874,822
Outdoors: \$201,322

Performance Categories	5 Acre High-Tech Greenhouse Grape Tomatoes
Acreage Under Glass	5
Growing Area (% actually planted)	95%
Growing Area in Square Footage	206,910
Yield per Square Foot	0.71
Total Yield per planting	146,906
Number of Plantings per year	10
Waste factor for transport and processing	94%
Estimated Yield to Market:	1,377,979
Estimated Market Price Per Pound	\$2.46
Estimated Gross Revenue	\$ 3,389,829
Cost of Labor, Seed, Water, Chemicals/Fertilizer	\$ 1,394,573
Cost of Lease and Power	\$ 1,046,980
Total Cost to Grow	\$ 2,441,553
Net income before shipping:	\$ 948,275
Cost of Shipping	\$ 73,453
EBIT	\$ 874,822

Significantly more efficient and cost effective than outdoor farming.

1-Acre Controlled Environment Agricultural Project



Jobenomics/ACTSFFA are currently pursuing 1-acre CEA pilot projects in Iowa, West Virginia, Las Vegas, Washington DC, Baltimore, Chicago, Erie PA, Montgomery County MD, Puerto Rico, and Alberta Canada.

Produce On Demand (POD) System



- **Year End Cash Balance:** Year 1 = \$350,000, Year 2 = \$650,000.
- **Indoors versus Outdoors:** 5-acre comparison: Indoor is 18-times more productive, Indoor generates 50% more revenue, Indoor EBIT is 434% higher than outdoor agriculture.

Earnings Before Interest & Taxes

Significantly more efficient and cost effective than outdoor farming. 9

Produce On Demand (POD)



Features

- **Easily Scalable Modular Facility**
 - Expandable modular construction for increased production
 - POD can be sited on any flat surface with limited site preparation
- **Food Safety Compliant**
 - Good Agriculture Practices (GAP)
 - Good Handling Practices (GHP)
 - Food Safety Modernization Act (FSMA)
- **Smart Technology**
 - Remote & Cloud-based Systems
 - Facility Management
 - Food Production Knowledge-Base
 - Security Access
 - Labor Management
- **Climate Controlled Growing**
 - LED Lighting
 - HVAC Systems
 - Fertigation Systems
 - CO2 Generation
 - De-Humidification Systems

Our POD systems are ideal proof-of-concept programs.

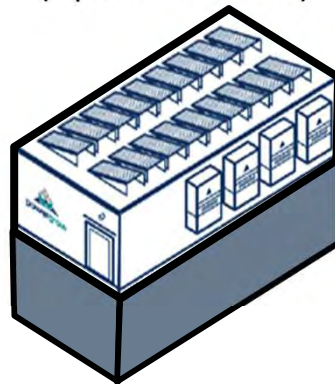
Modular Construction

- Affordable multiuse configurations: micro farms, homes, offices.
- Livable: from 1,000sf to 3,000sf units.
- Environmental: LEED certified, insulated, mold resistant, solar.
- Suitable for small lots (1/8 acre) & spaces:



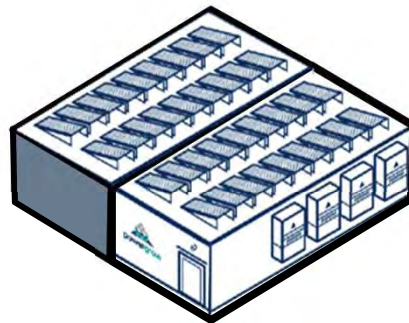
Vertical Configuration

(up to 3 stories)



Horizontal Configuration

(Attached or Detached Units)



Modular/Portable



Proven



(TV Star Rick Harrison's Pawn Plaza in Las Vegas was built with the same manufactured modules as a POD)

Our modular units have even been utilized for shopping centers.

Produce On Demand (POD)

Off-Grid Configuration



A POD is for growing.
Processing and packaging will
be either conducted in the
POD or secondary sites.

100kW Solar Array

Modular
Growing Facility

EV Refrigerated
Truck & Charging Station

HVAC/Power
& 20kW
Storage Station

Produce will be harvested every 30-60-90 days depending on crops.

Live/Work Eco-Communities



Opportunity Zone Fund financing now available.

Sustainable & Affordable Ecosystems



- **Highly-scalable designs based on integrated solutions**
 - Design-build project delivery with advanced building, materials, energy and environmental technologies
 - Increased use of modular systems and pre-fabricated units
- **Sustainable single-family, multi-family & community programs**
 - Increase usage of single-family accessory dwelling units
 - Implement new multi-generational, multi-family concepts
 - Create dedicated workforce business/housing communities
- **Revitalize under-resourced communities and neighborhoods**
 - Mass-produce micro businesses and jobs with livable wages
 - Mobilize community-leaders and officials to streamline permitting, zoning and land use regulations
 - Maximize Opportunity Zone and private sector funding

Efficiently produce high quality, lower cost homes and businesses.

Live/Work/Play/Retire Complex

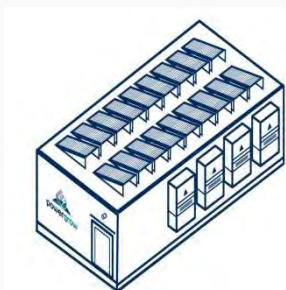


Meets community needs for affordable homes, safety, green eco-friendly facilities, and business/job creation.

Scaling Into Local Markets

Launch – Expand – Scale

POD LAUNCH

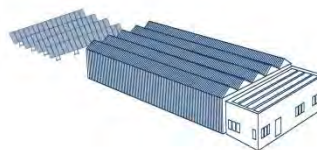


Growing Crops and
Generating Revenue in
60 to 90 Days

3-5 Direct Jobs

YEAR 1

1 ACRE POD EXPANSION or 1 TO 5 ACRE GREENHOUSE

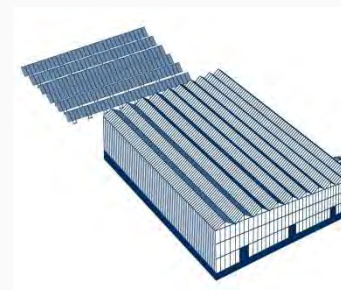


Expandable Footprint
for Market Expansion
and Multiple Crops

20-30 Direct Jobs

YEAR 2

5 TO 15 ACRE GREENHOUSES



Maximizes Economies
of Sale, Revenue
and Profits

150 Direct Jobs

YEARS 3 - 5

10-50 PODs located
throughout major metropolitan areas.

1-3 complexes
in counties and regions.

Typical Income Statement

Washington DC POD, February 2019



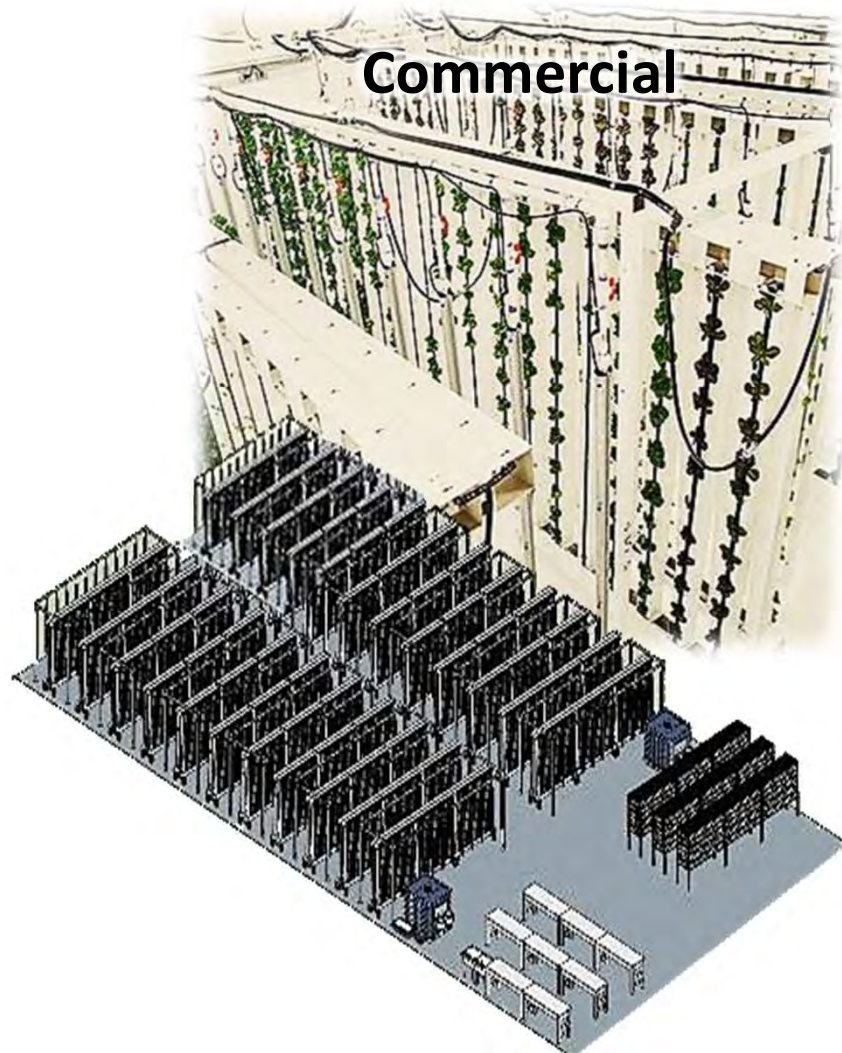
	2019	2020	
Revenue*	\$746,567	\$846,613	
Cost of Goods Sold	\$142,016	\$144,066	*Crop Revenue
Gross Profit	\$604,551	\$702,548	Spinach 25%
Expenses	\$298,573	\$238,573	Arugula 25%
EBITDA	\$305,978	\$463,975	Kale 25%
Depreciation	\$209,588	\$378,834	Basil 25%
Operating Income	\$96,390	\$85,141	
Starting Capital	\$300,000	\$322,571	
Ending Cash Balance	\$322,571	\$567,963	

ACTSFFA team will meet with local buyers and conduct a detailed financial assessment before contract award.

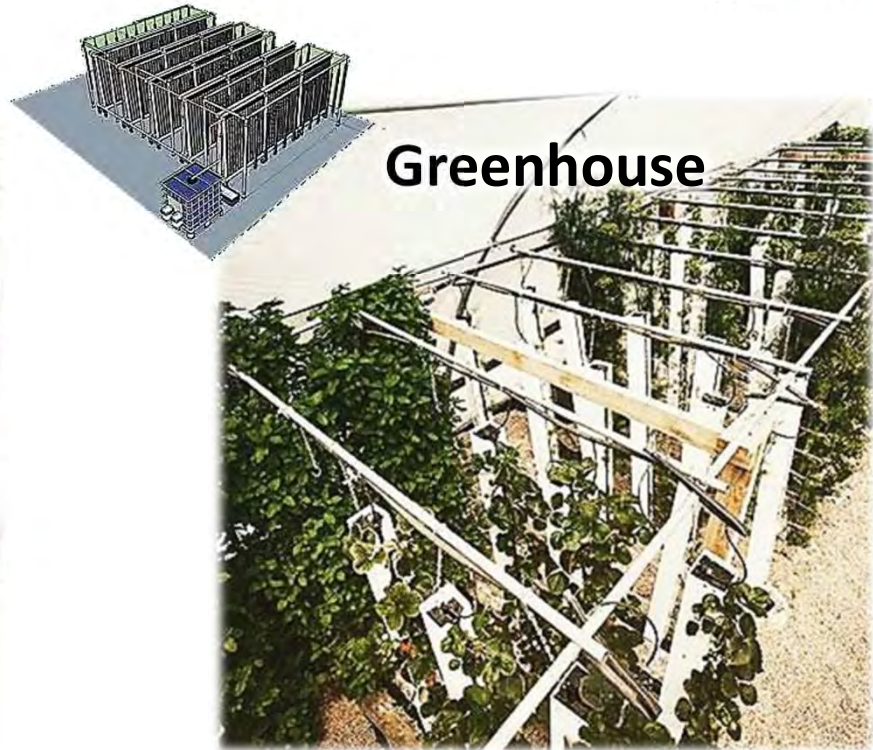
CEA Growing System

AgroTech's ZipGrow System

Commercial



Greenhouse



ZipGrow is the world's most installed vertical farming technology.

High \$ Value CEA Products

Common Crops

- Culinary Herbs
- Lettuce
- Spinach
- Tomatoes
- Strawberries
- Peppers
- Cucumbers

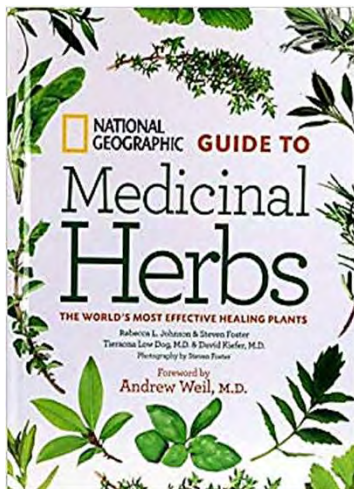
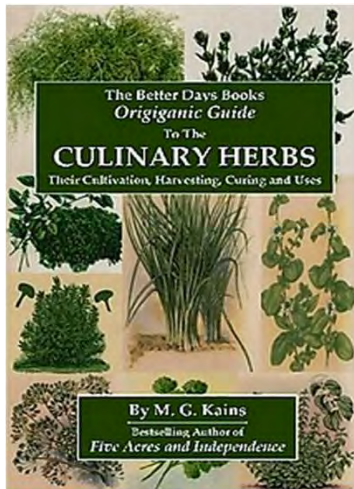


Specialty Crops

- Medicinal Herbs
- Flowers
- Mushrooms
- Ground Covers
- Ornamental Grasses
- Bamboo
- Hemp

The highest value crop is hemp. Cultivating hemp for CBD oil can generate as high as \$75,000 per acre in controlled conditions.

Culinary & Medicinal Herbs



Culinary Herbs

- Basil
- Chives
- Caraway
- Dill
- Oregano
- Parsley
- Tarragon
- Mint
- Thyme
- Rosemary
- Sage

Medicinal Herbs

- **Chamomile** (*pain, inflammation, cramps*)
- **Cinquefoil** (*inflammation, ulcers, jaundice*)
- **Feverfew** (*migraine, fevers, arthritis*)
- **Foxglove** (*cardiac contractility, heart rhythm*)
- **Golden Rod** (*menstruation, arthritis, eczema*)
- **Wintergreen** (*cooling properties: gum, mints, etc.*)
- **Many Others**

The global dried herbs market is around \$4 billion per year.

Industrial Hemp Products



Body-Care Products



CBD Oil



Food Supplements



Apparel



Fertilizer



Capacitors



Biofuels



Paper



Rope



Hempcrete

The highest value crop is hemp. Cultivating hemp for CBD oil can generate as high as \$75,000 per acre in controlled conditions.

Cannabis

Same Species With Different Chemical Compounds And Applications

Hemp

Cannabis Sativa



Marijuana

Cannabis Indica & Sativa

- **Legal** (2018 U.S. Farm Bill)
- Usage: agricultural, industrial, medical & pharmaceutical
- Primary compound: **CBD** (Cannabidiol) grown for its non psychoactive properties
- Main markets: medical, body-care, nutritional, construction materials, fibers, animal food
- Federally **illegal** (10-States legal)
- Usage: mainly recreational with a few medical applications
- Primary compound: **THC** (Tetrahydrocannabinol) grown for its psychoactive properties
- Main markets: mood-enhancing (smoking, edible, vaping & infused beverages) products

The U.S. hemp-CBD market is growing faster than marijuana and will be a \$22 billion industry by 2020 (up from \$600m in 2018).

Hemp CBD Oil Extraction

- **Industrial hemp** extracts include pharmaceutical - grade **CBD oil** used for illnesses and pain relief.
- CBD market will grow 700% to \$2.1 billion market in 2020.
- USDA 2018 Farm Bill includes language that legalizes hemp cultivation and production.
- CBD oil extraction systems fit in our highly-sanitized cube.



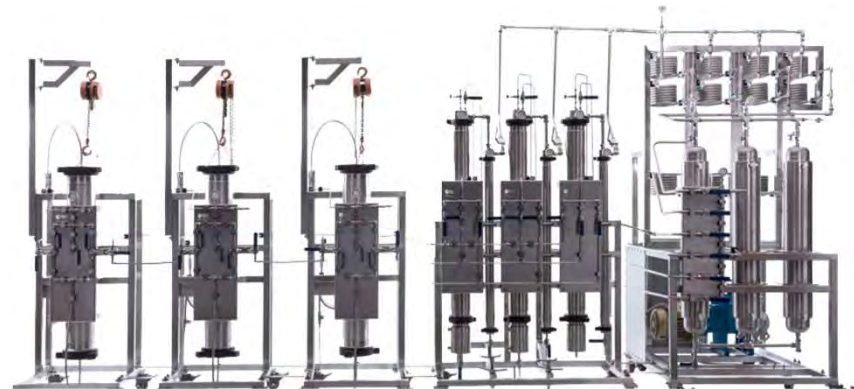
Apex **Commercial** CO2 Extraction System

Model 5000-20Lx20L2ST, Revenue/Day \$25,424-\$76,463



Eden Labs **Industrial** CO2 Extraction System

Model 2x20L FX2, Revenue/Day \$163,440-\$217,920



CBD oil extraction services are as profitable as cultivating hemp.

ACTS FFA Management Team



Business Innovation, Analytics, Fulfillment And Business Economics Experts



Michael Buehler

CEO & President
Business
Innovation



Bill O'Connor

Chief Analytics
Officer
Project Financing
Expert



Robert Flegal

Chief Operating
Officer
Fulfillment Expert



Chuck Vollmer

Advisory Board Vice
Chairman



**ACTS Freedom Farms Advisory Board Members include
controlled environment agriculture and fertigation experts.**

ACTS FFA Support Programs



Federal, State, Local & National Team

■ Financial

- Land Acquisition, POD & Equipment Funding, Operating Capital

■ Operational

- Food Safety: GAP, GHP, FSMA
- Organic Certification
- Staff Augmentation with Subject Matter Experts

■ Sales & Marketing

- National Retail Produce Off-Taker Programs

■ Growing Expertise

- Upstart University, U of A CEAC, Master Grower Services
- ACTS FFA extensive training ongoing.
- Local Universities and colleges will utilize PODs as remote training centers for students.

ACTSFFA will manage CEA joint ventures from cradle-to-grave.

Contact Information

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