

Farming Opportunities

# Food Systems Strategies for Economic Development

A CEDAS Academy Webinar  
December 15 | 11:00 a.m. - 12:00 p.m. ET

*Hosted by Laura Brown, UConn-Extension Program in Community & Economic Development, and Rebecca Nolan President, CEDAS. This webinar is free and offered as a cooperative program of CEDAS and the University of Connecticut-Extension Program in Community & Economic Development.*



# Welcome to the CEDAS Academy Economic Development Strategy Tapas Webinar Series



*ED Strategy Series is a web-based educational learning series developed by UConn Extension in collaboration with the Connecticut Economic Development Association and the Connecticut Economic Resource Center.*





*join us for the 2016-2017 CEDAS Academy*

# **ECONOMIC DEVELOPMENT STRATEGY** *Tapas Webinar Series*

*small plates dished up to inspire*

**Thursday February 16, 2017 11:00 am - 12:00 pm**  
**Innovations in Workforce Development**

**Thursday April 13, 2017 11:00 am - 12:00 pm**  
**Activating Third Places: Maker and Co-working Spaces**

**Thursday June 1, 2017 11:00 am - 12:00 pm**  
**Community Driven Business Retention & Expansion Programs**

**Thursday August 10, 2017 - 11:00 am - 12:00 pm**  
**Entrepreneurship: Creating a culture of Innovation**



*join us for the 2016-2017 CEDAS Academy*

# **ECONOMIC DEVELOPMENT STRATEGY** *Tapas Webinar Series*

*small plates dished up to inspire*

**Register at: [www.cedas.org](http://www.cedas.org) OR  
<http://communities.extension.uconn.edu/>**

**Thursday February 16, 2017 11am - 12 pm**

**Innovations in Workforce Development**

**Speakers**

- Patrick Flaherty, Assistant Director of Research and Information, Office of Research and Information Connecticut Department of Labor
- Mark Hill Chief Operating Officer, Eastern CT Workforce Investment Board, Inc.
- Adrienne Farrar Houel, President & CEO The Green Team; Park City Green; Next Chapter Books, Greater Bridgeport Community Enterprises, Inc Bridgeport

Advancing the  
Practice of  
Economic  
Development in  
Connecticut



**Connecticut Economic Development Association, is a not-for-profit organization committed to advancing the practice of economic development within the state of Connecticut. CEDAS encourages communication among its members by providing a forum for discussion and information exchange.**

# Introducing the 2017 Board of Directors

President: Rebecca A Nolan, EDP | MetroHartford Alliance

1st Vice President: Courtney Hendricson | CERC

2nd Vice President: Tom Burmeister | Profit Miners Inc.

Treasurer: Mark Barnhart | Town of Fairfield

Secretary: Garrett Sheehan, CEcD | EverSource Energy

Immediate Past President: Patrick McMahon | Town of Suffield

Michael Andreana, Esq. | Pullman & Comley

Jamie Brätt, AICP, LEED AP | City of Hartford

Laura Brown, CEcD | UCONN

Juliet Burdelski | City of Meriden

James Burke, AICP | Town of Windsor

Nicole Licata Grant | UIL Holdings /Avangrid

Beatriz Gutierrez | State of CT DECD

Juliet Hodge | SeCTer

Julie Nash | City of Milford

John O'Toole, CEcD | EverSource Energy

Rose Ponte | Town of Farmington

Mark Waterhouse, CEcD, FM, HLM | Garnet Consulting, Inc.

Erin Wilson, AICP | City of Torrington

Trenton Wright, CFRE, CEcD | Middlesex Community College

[www.cedas.org](http://www.cedas.org)

**Get Involved...**  
**Join a Committee!**

Program, Professional  
Development & Events

Policy Development

Membership

Scholarship

Resource & Community  
Outreach

Communications

## How to find us



**Follow us on Twitter: @CTCEDAS**

**Like us on Facebook: CEDAS**

**Link on LinkedIn: CTCEDAS**

**Watch us on YouTube: CTCEDAS**

**Join us: [www.cedas.org](http://www.cedas.org)**



# Our Presenters

**Laura Brown, CEcD, is a Community & Economic Development Educator with the University of Connecticut-Extension .** She has worked in urban and rural areas in New England and the midwest in non-profit management, food systems education and asset based community & economic development.



**Jocelyn Ayer is the Community & Economic Development Director for the Northwest Hills Council of Governments which serves 21 town in CT's northwest corner.** She is currently working with a team to help launch a Food Hub in NWCT in 2017 to support farmers and access to local food. She has a Master's degree in Regional Planning from the University of Massachusetts Amherst and one of her first jobs was pulling weeds on a farm in Vershire, Vermont.



**Emily Stengel is the Deputy Director of GreenWave, where she leads and supports programming and operations, overseeing internal operations, implementation of programming, and fundraising strategy and execution.** She brings to GreenWave a background in sustainable food systems, working for several years at a B-Corp catering company in NYC dedicated to supporting the regional farm and food economy, and more recently, working on a research team focused on workforce development in agricultural communities. Emily has an MS in Community Development and Applied Economics from the University of Vermont.

# The Local Food System



# Connecticut's Farm Economy

- From 2007-2012

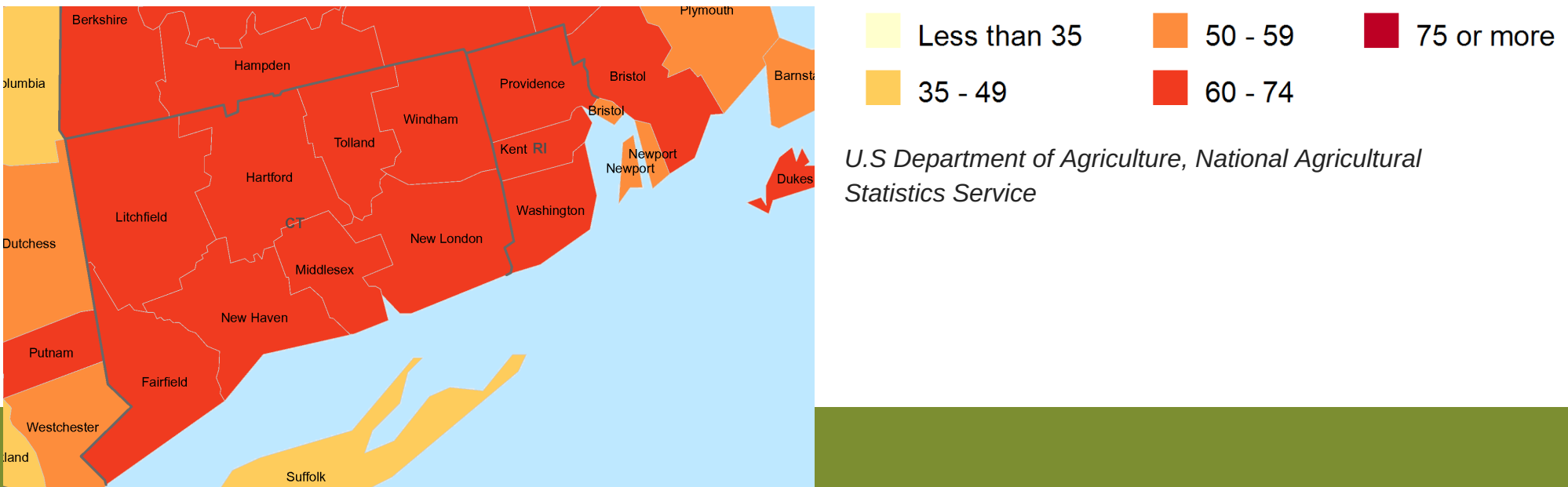
Number of farms in Connecticut increased by 22% from 4,916 to 5,977

Land in farms increased by 8%

Size of farm decreased from 83 to 73 acres

Most farms have sales < \$10,000

Percent of CT Farms with Sales <\$10,000: 2012





# Local Food Systems & Economic Development

What we know..

- A lot about direct markets (farmer markets, CSA's, direct sales for human consumption.)
- Little about inter-mediated markets (restaurants, hospitals, schools) “which may account for significantly more local food sales than direct to consumer sales alone.” (Low and Vogel, 2011)

*Low, Sarah A. and Vogel, Stephen J., Direct and Intermediated Marketing of Local Foods in the United States (November 1, 2011). USDA-ERS Economic Research Report No. 128. Available at SSRN: <https://ssrn.com/abstract=2114361> or <http://dx.doi.org/10.2139/ssrn.2114361>*

# Economic Development Opportunities

## Entrepreneurship and cooperative aggregation, distribution, or processing

The number of small farms in Connecticut is growing but "little food system infrastructure exists between the roadside-stand direct-marketing option and the large-scale global supply chain option."

## Niche for small producers

The number of small farms in Connecticut is growing. Significant market opportunities exist for these smaller producers...because consumers and institutions are increasingly asking for healthy, green, fair, and affordable food."

## Investment in quality places

Businesses are increasingly located where people want to live. Quality places include green spaces, and stores and restaurants that provide healthful, quality food options.

Middle image courtesy Red Tomato <http://www.redtomato.org/logistics/>  
Iowa State University. (2011). Bulletin Engaging Community Planners and Local Elected Officials with Local Food Systems Producers to Integrate Local Food Systems into Community Plans and Policies Local Food Systems and Economic Development



# Economic Development Opportunities

## Entrepreneurship and cooperative aggregation, distribution, or processing

- Incubators for value added product development and testing
- Co-packing facilities
- Food incubators
- Aggregation or distribution hubs
- Small batch processors

## Niche for small producers

- Farmer and food business training
- Cluster networks
- Farm to school, restaurant, or institution
- Buy local campaigns that tell the story of the farm

## Investment in quality places

- Improving food access
- Food atlases
- Farm to table
- Food based agritourism and culinary tourism

*Middle image courtesy Quince & Apple*

*Photo by Kent Sweitzer*





# NORTHWEST CONNECTICUT FOOD HUB

**Jocelyn Ayer**  
**Community & Economic Development Director**



- How can food hubs create jobs and grow the agricultural economy?
- How did we assess local food supply and demand for a food hub in NWCT?
- Links and resources

**“A regional food hub is a business or organization that actively manages the aggregation, distribution, processing, and/or marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.”**

**– USDA**

There are 350 Food Hubs nationwide (2013 Study)

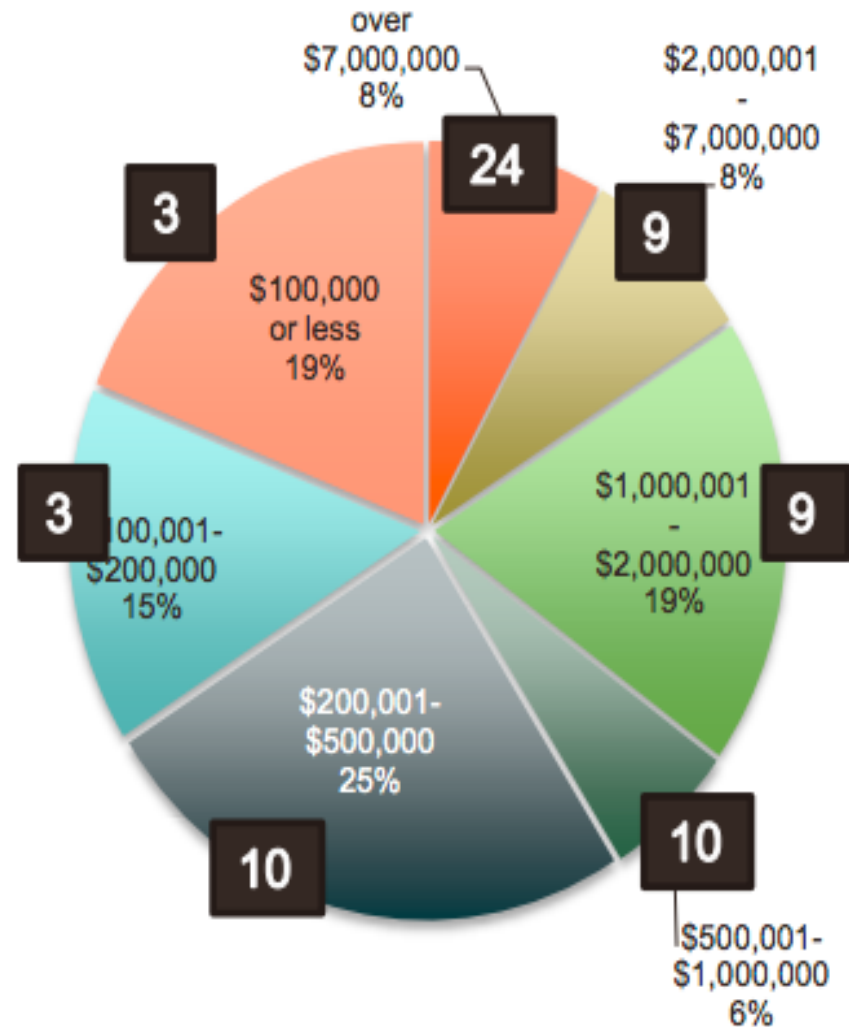
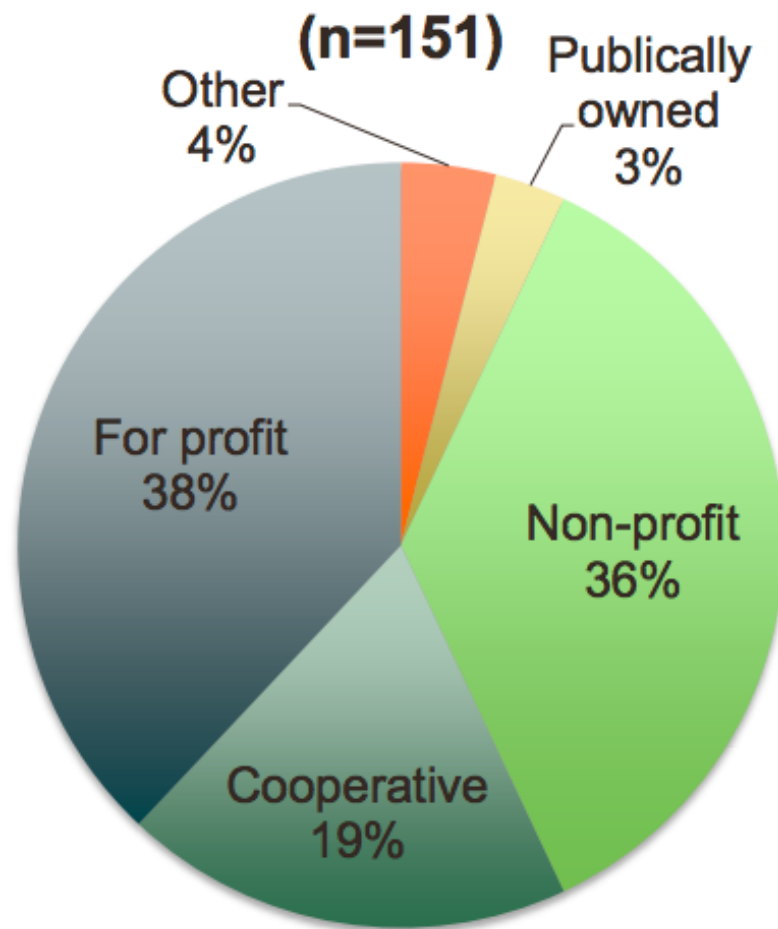


PUGET SOUND  
FOOD HUB



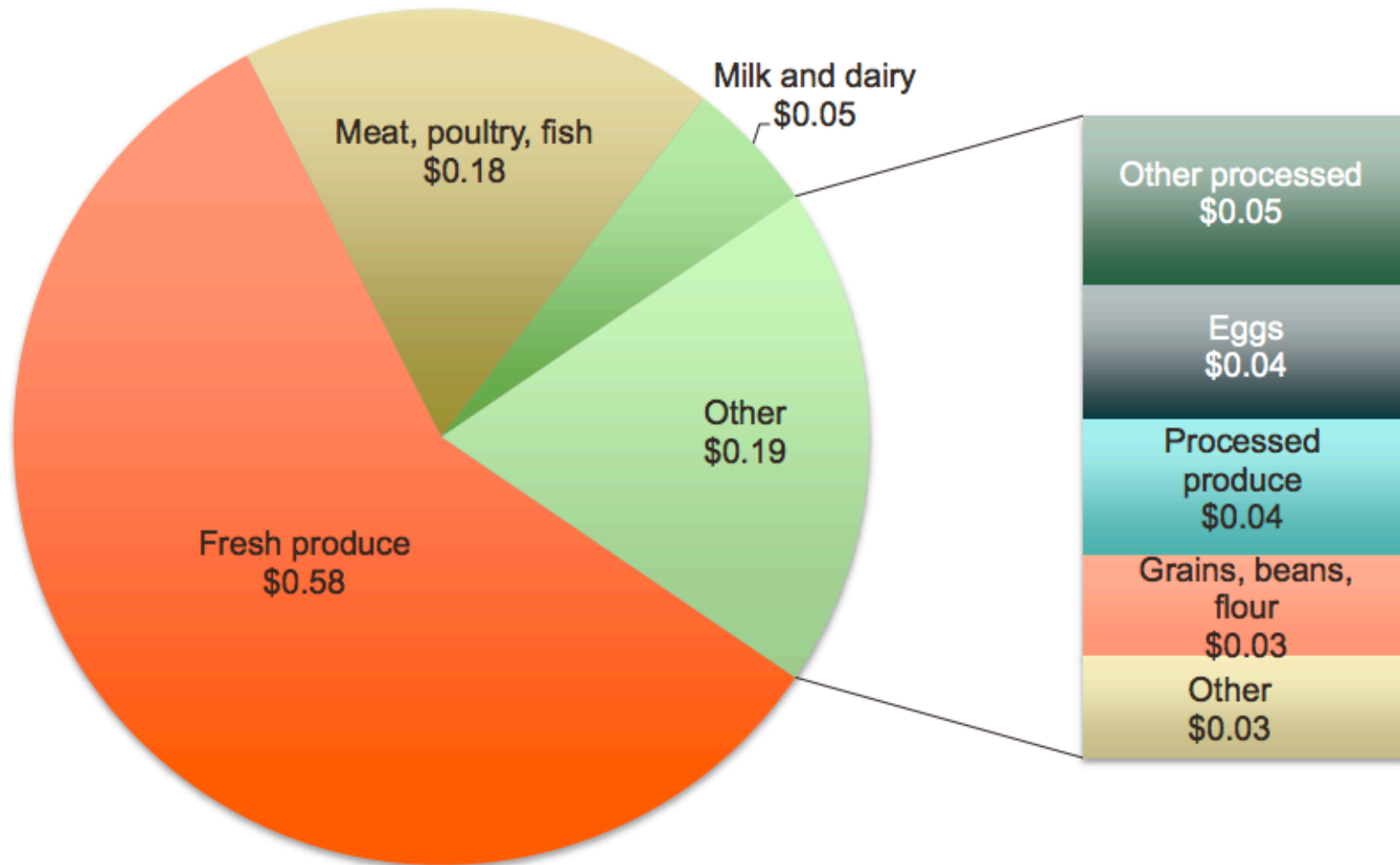
# Food Hub Legal Structure & Gross Revenue

[2015 National Food Hub Survey]



# Food Hub Sales Revenue by Category

[2015 National Food Hub Survey]



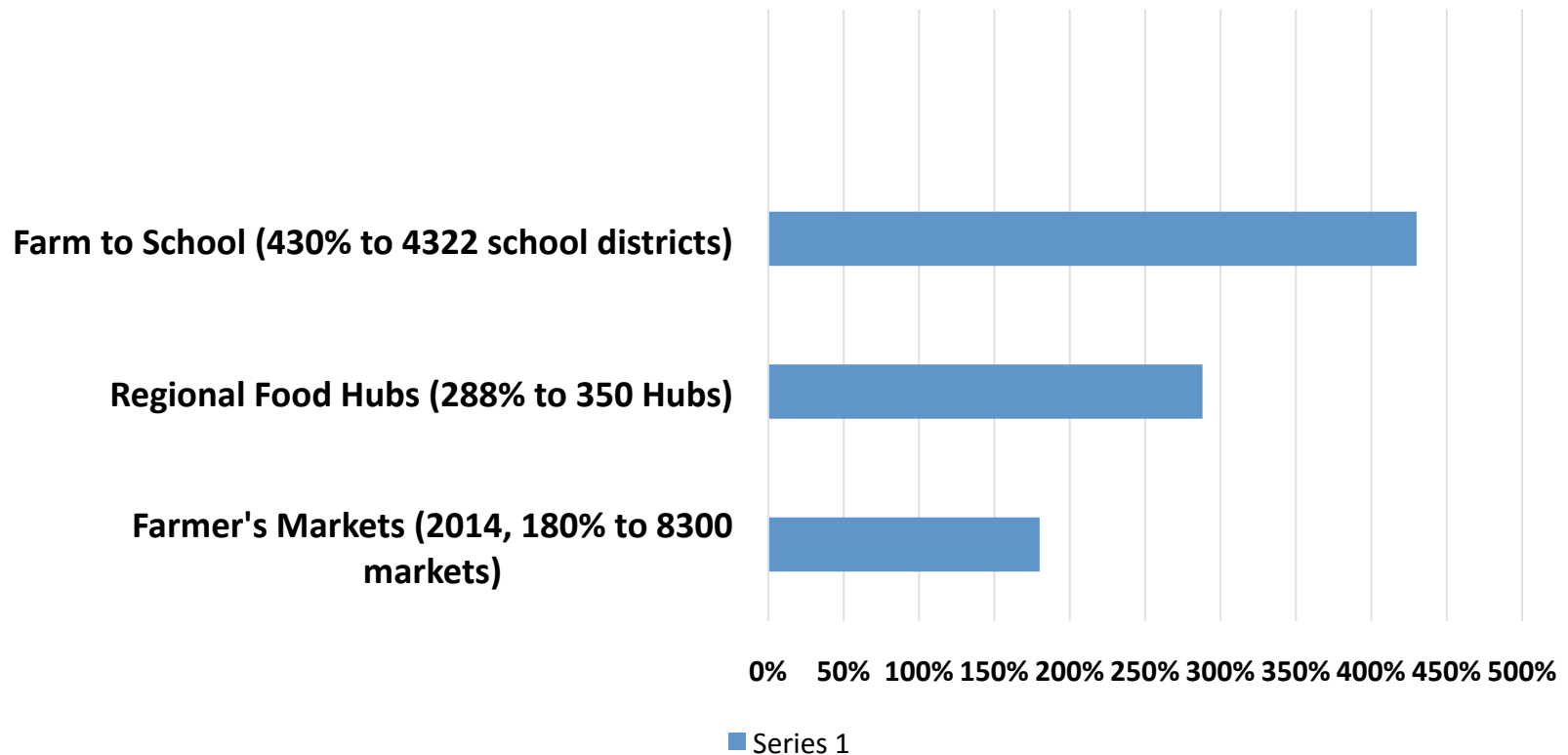
# Percent of farm products sold: Direct to Consumer v. Wholesale.

USDA 2012 Census of Agriculture



# Growth in Outlets for Local Food 2006-2014

Since 2007, Growth In...



# Food Hub benchmarking study

## Financial Models - Operational Period Comparison

[USDA Rural Development & Matson Consulting 2015]

### **Breakeven (3-5 years)** **Covering Operating Expenses**

	<b>Wholesale</b>
Revenues	\$1,210,000
Total Variable Operating Costs	(\$950,252)
Variable Margin (Loss)	\$259,748
Total Equipment Costs	(\$34,377)
Total Facilities Costs	(\$43,280)
Total Selling and Marketing Costs	(\$5,000)
General and Administrative Expenses	(\$128,263)
Unforeseen and Contingency Expenses	(\$48,400)
Baseline Earnings EBITDA (Loss)	\$429

### **Vitality** **From cash flow neutral to future growth**

	<b>Wholesale</b>
Revenues	\$2,400,000
Total Variable Operating Costs	(\$1,857,308)
Variable Margin (Loss)	\$542,692
Total Equipment Costs	(\$44,693)
Total Facilities Costs	(\$45,916)
Total Selling and Marketing Costs	(\$5,305)
General and Administrative Expenses	(\$218,175)
Unforeseen and Contingency Expenses	(\$96,000)
Baseline Earnings EBITDA (Loss)	\$132,604
Interest Expense	(\$8,433)
Depreciation Expense	(\$16,071)
Net Income (Loss)	\$108,099

# Job & Income Creation Potential

For every \$100,000 of *new* sales of local food



2.2 jobs are created



\$77,000 of income is brought in

\$7,000 in state & local taxes generated

**Source:** Dr. Steven Deller, Department of Agricultural and Applied Economics,  
University of Wisconsin-Madison

# FEASIBILITY STUDY OVERVIEW

---

COLLABORATORS: **Partners for Sustainable Healthy Communities** and **Northwest Hills COG**

- Upper Housatonic Valley National Heritage Area
- Farmers

FUNDING: **CT Department of Agriculture** through the Community Investment Act.

GOALS:

1. Support local farms by helping to connect them to new & expanded sales channels.
2. Grow the agricultural economy of NW CT



Determine whether & what type of food hub could do this.



# FOOD HUB FEASIBILITY STEPS

---

**The NWCT Food Hub Feasibility Study has successfully identified supply, demand and interest to warrant the development of a food hub.**

## Market Assessment

Understand supply, demand, infrastructure and competitive landscape. Determine optimal food hub business model. *Completed January 2016.*

## Business Analysis

Forecast steady state pro forma, to determine financial viability. Make go/no-go decision. *Completed March 2016.*



## Operator Identification

Search for and select operator (individual or existing business or nonprofit). *Completed October 2016.*

## Business Planning

Full plan detailing sales, operations, staffing, 5 year financials, fundraising requirements. *In process.*

## Fundraising

Develop uses and sources of funds strategy (grants, debt, equity). Secure funds. *In process.*

## Launch

Launch food hub to prove concept and generate initial revenue. *Target Spring 2017.*

# NWCT FOOD HUB MARKET ASSESSMENT

## INPUT PROCESS

---

- **Kickoff meeting** engaged 14 Steering Team and Advisory Council Members from the NWCT region
- **Online survey**, via Survey Monkey, received 66 producers and 23 buyers respondents
- **Interviews** with 9 producers, 7 buyers, and 5 food systems leaders
- **Planning Forum** had 18 producers, 5 buyers and 8 food systems stakeholders in attendance
- **Reviewed input and conclusions with NHCOC and NWCTEDC**

# NWCT Food Hub Study Findings

---

## Production Trends

- 28 growers interested in selling into a NWCT food hub
- Interested producers generate 60-65% of sales through direct-to-consumer channels
- Food safety is limited: 14 interested producers have an on farm food safety plan; none are GAP certified.

## Demand Trends

- 21 NWCT buyers (grocery stores, distributors, institutions, and restaurants) interested in purchasing from a food hub
- Annual spend among these buyers: \$9.7M fresh produce and \$7.1M protein/dairy
- Buyers purchase 10-50% of their products locally already, often directly from farmers who completed the survey.

# 10 Keys to Success for Food Hubs

1. **Clearly defined goals, vision and mission statement**
2. **Getting stakeholders engaged early in the process**
3. Understanding market segments and how to access them
4. Having an education program and strategy
5. Learning and understanding customer requirements
6. **Acknowledging the level and types of infrastructure investment**
7. **Determining the correct business structure/operating model**
8. Determining the scale needed to operate efficiently
9. Identifying all sources of technical and financial support
10. Managing information efficiently for accurate information flow and transparent working relationships

*Source: Matson Consulting & Colorado State University*

# Resources & Links

---

- USDA AMS ([www.ams.usda.gov](http://www.ams.usda.gov))
  - Research, publications, technical assistance resources, and grant program info
  - “The Economics of Local Food Systems: A toolkit to guide community discussions, assessments, and choices.” (March 2016)
- Ventures in Good Food Blog
  - [www.newventureadvisors.net/blog/](http://www.newventureadvisors.net/blog/)
- CT Dept. of Agriculture publications ([www.ct.gov/doag](http://www.ct.gov/doag))
  - *A Guide for Municipalities: Department of Agriculture Programs and Services*
  - *Planning for Agriculture: A Guide for Connecticut Municipalities* - American Farmland Trust and the Connecticut Conference of Municipalities
  - *Economic Impacts of Connecticut's Agricultural Industry* (UConn 2010)
  - *Grow Connecticut Farms First Annual Report*, by the Governor's Council for Agricultural Development (2012)

RHODE ISLAND FOOD SYSTEM  
2015 SNAPSHOT

**LITTLE COMPTON**

POPULATION 3,492





# Massachusetts FOOD SYSTEM PLAN

The plan will identify goals and strategies to:

- **Increase production**, sales and consumption of Massachusetts-grown foods;
- **Create jobs** and economic opportunity in food and farming, and improve the wages and skills of food system workers;
- **Protect the land and water** needed to produce food, maximize the environmental benefits from agriculture and fishing, and ensure food safety; and
- **Reduce hunger** and food insecurity, **increase the availability of fresh, healthy food** to all residents, and **reduce food waste**.



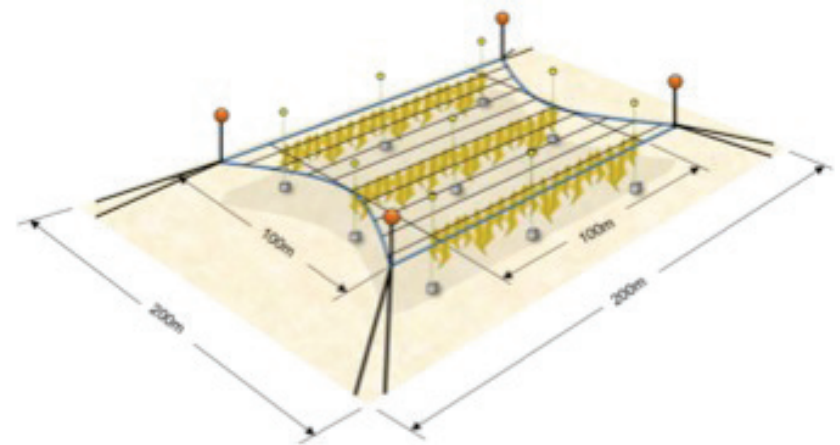
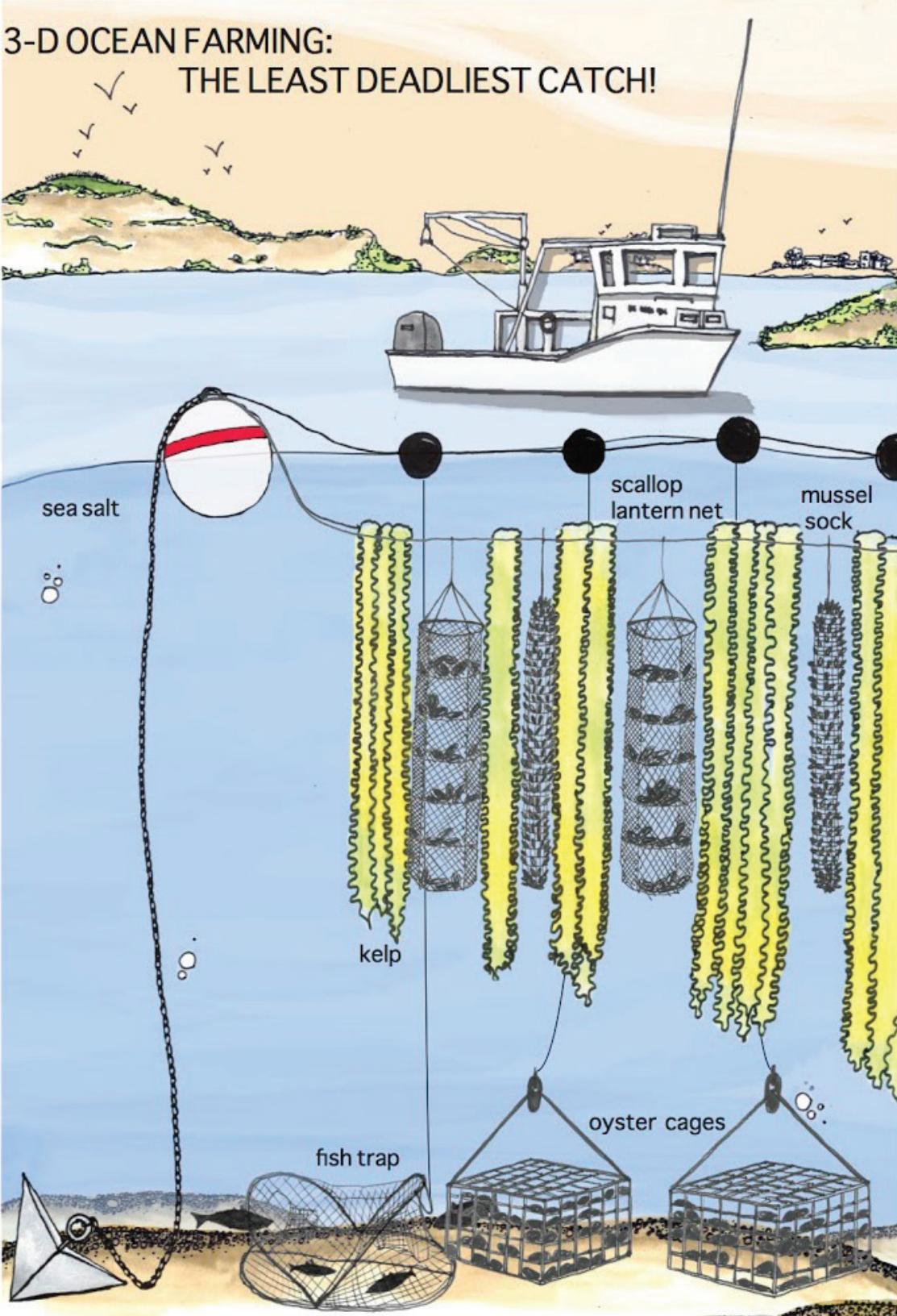
# 3D OCEAN FARMING

*and the Restoration of Coastal Communities*



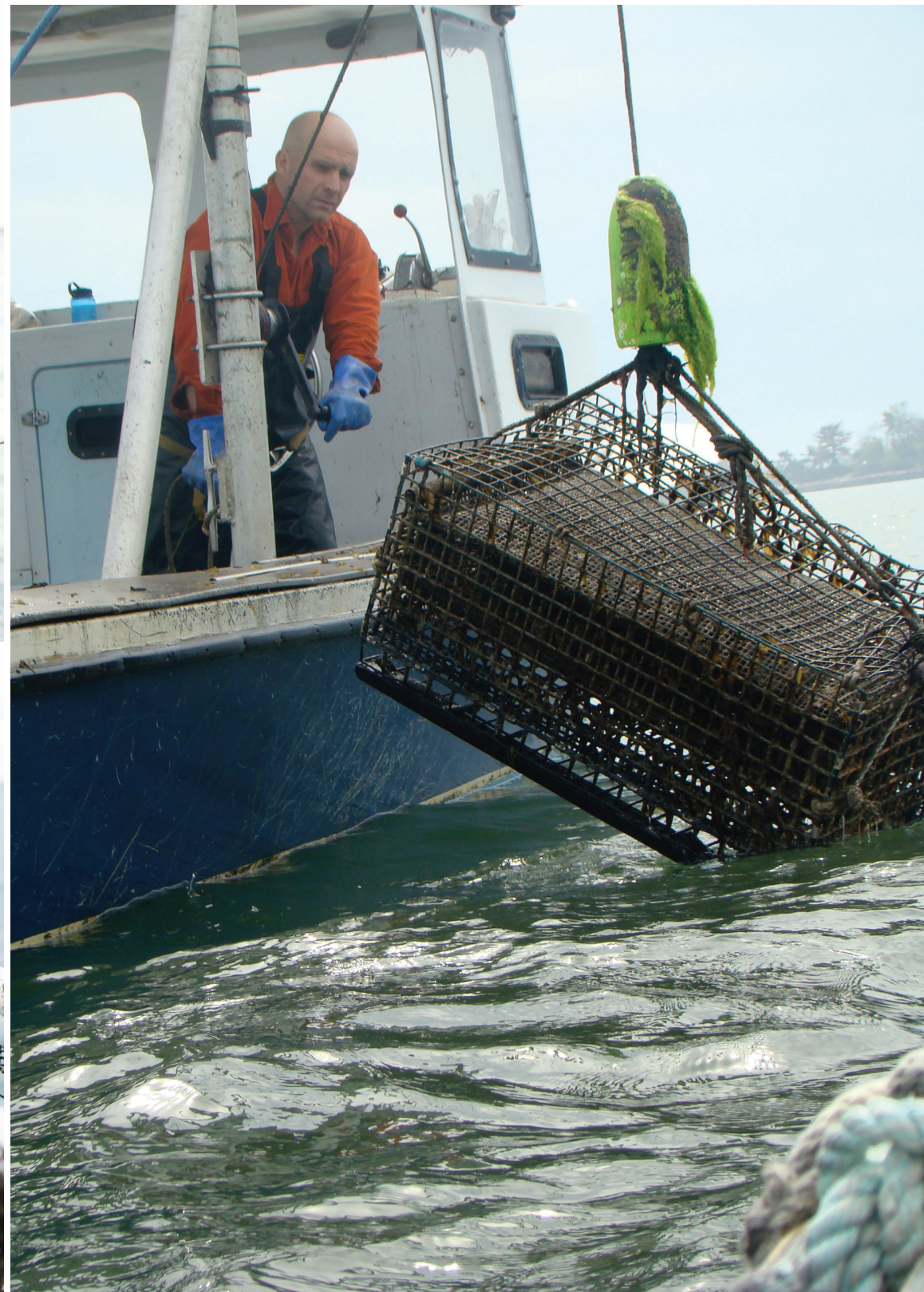
GreenWave

# 3-D OCEAN FARMING: THE LEAST DEADLIEST CATCH!











LOW AESTHETIC IMPACT / SMALL FOOTPRINT / PROTECTS OUR COMMONS

# 1.

*Reimagine* the seafood plate  
in the era of overfishing and  
climate change.



EAT LIKE  
A FISH



# SCALING FOOD SECURITY

*One acre = 10-30 tons of kelp and 250,000 shellfish.*

*A network of farms the size of Washington state can feed the world.*

*Zero input food: no freshwater, no fertilizer, no feed.*

*Most sustainable and affordable food on the planet.*



2.

*Transforming* fishers to  
restorative ocean farmers.

# OYSTERS

- *Filter up to 50 gallons of water per day*
- *Reduce dead zones*



A close-up photograph of seaweed, likely kelp, showing its brown, wavy, and textured fronds. The seaweed is wet and glistening, with some areas appearing more translucent than others. The background is a solid green color.

*“The culinary equivalent of the electric car.”*

THE NEW YORKER

*Soaks up to five times more carbon than land-based plants.*

Seaweeds can  
produce 2,000  
gallons of ethanol  
per acre - five  
times more  
than corn.

# BIOFUEL

“According to  
the Department of Energy,  
a network of farms equaling  
half the size of the state of  
Maine could replace all the  
oil in the U.S.”



*Adding kelp to livestock  
diets could reduce  
methane output by 90%*

## BRIDGING LAND AND SEA FARMING

*Fertilizers: closing  
the nitrogen loop*



# 3.

*Building the foundation of the  
new food system: jobs, justice  
and restorative economy.*

# REPLICATION

*Open Source*

*20 acres + a boat,*

*\$30,000*



*Designed around simplicity,  
not complexity with low  
capital costs and minimal  
skills required.*

*20 acre farm*

*nets about \$130,000*

*and employs 2 full-time  
and 5 seasonal employees.*



## NON-PROFIT VS. FOR PROFIT



✓ REPLICATION

✓ POLICY

✓ R&D



✓ INFRASTRUCTURE

✓ MARKET DEVELOPMENT

✓ INNOVATION



# FARMER TRAINING PROGRAM

STARTUP GRANTS

FREE SEED

PERMITTING

GEAR FROM PATAGONIA

GUARANTEED PURCHASING

An illustration of an offshore wind farm with several white wind turbines on yellow-green foundations. The scene is set against a sunset sky. In the foreground, a large fishing net with red floats is tangled around the foundations of two turbines. Several small white buoys are scattered on the seabed. Two small fishing boats are visible: one on the left and one on the right. The overall image highlights the conflict between renewable energy and traditional fishing activities.

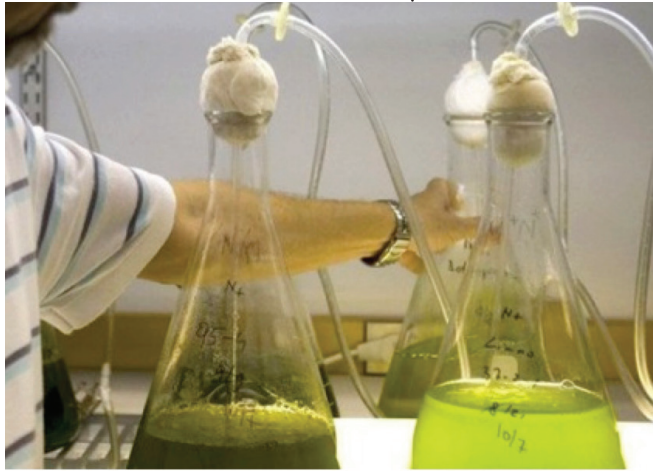
POLICY

PROPERTY RIGHTS / OCEAN PLANNING / TRACEABILITY

*Pollution Farming*



*Harvesting & Hatchery Technology*



# GREENWAVE REEFS



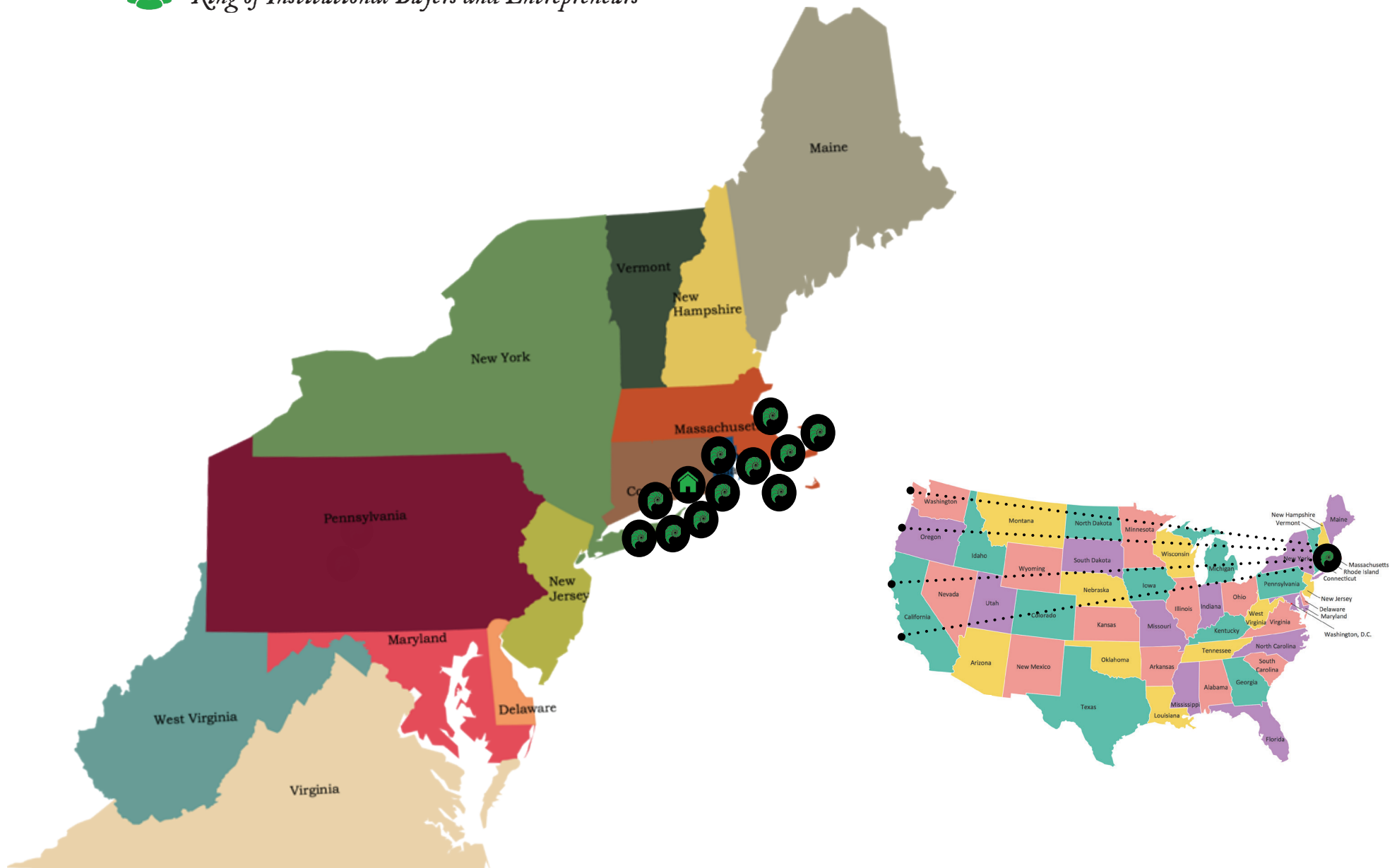
25-50 Farms



Seafood Hub & Hatchery



Ring of Institutional Buyers and Entrepreneurs





# MOVING TO SCALE

## *Infrastructure*



## *Market Development*

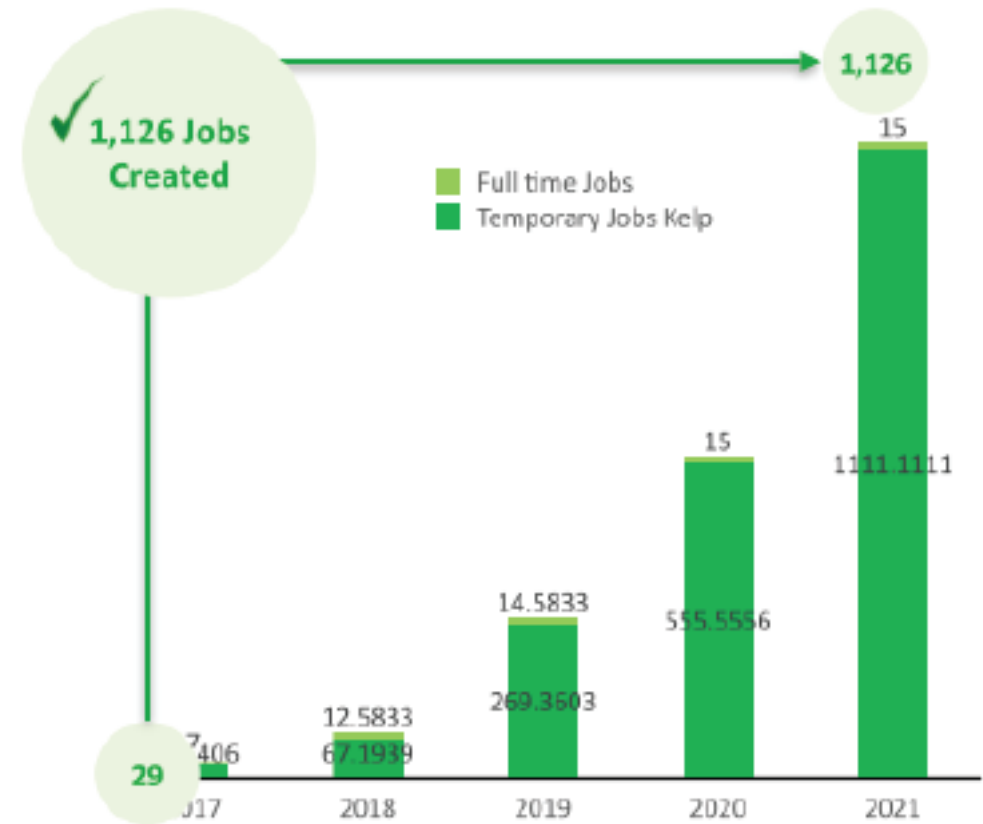


## *Innovation*



# M E T R I C S

- ✓ 11 new farm startups since 2014
- ✓ 9 new farmers enrolled in program In 2016
- ✓ Average of 5-10 new farmers per year
- ✓ 25 farms in New England waters by 2019



\*Temporary Jobs based on 90 pounds of Kelp processed per 8hr shift.

# FOOD JUSTICE

*Urban Planning*

*Living Wage*

*Open Employment*

*Ownership & Agency*



*Making a living on a living planet*



# Food Systems Resources

**Cornell University Library Local and Regional Food Systems Resources** List of local ( New England and other regions) food systems projects and programs

<http://guides.library.cornell.edu/c.php?g=31298&p=207466/home#s-lg-box-625594>

**UC Davis Community Food Systems Bibliography** – resources by topic and case studies

<http://asi.ucdavis.edu/programs/sarep/research-initiatives/fs/assessment/community-food-system-resources>

**North Central Region County Food Systems Profiles** - Selected food systems resources by topic including food systems planning, food systems assessment, direct marketing, value chain development etc <http://foodsystems.wisc.edu/resource.php>

**Connecticut Food Systems Alliance** – Quarterly topical gatherings, networking

<https://ctfoodsystemalliance.com/>

**Guides, reports, metrics, case studies pertaining to farm to institution strategies** and projects in the region - <http://www.farmtoinstitution.org/>

**Network of new farmers in CT** - <http://newctfarmers.com/>

**Consumer marketing for businesses that sell local food** or offer local agriculture experiences <http://www.buyctgrown.com/>

**Extension programs related to sustainable food systems** - <http://sustainablefood.uconn.edu/>



*join us for the 2016-2017 CEDAS Academy*

# **ECONOMIC DEVELOPMENT STRATEGY** *Tapas Webinar Series*

*small plates dished up to inspire*

**Thursday February 16, 2017 11:00 am - 12:00 pm**  
**Innovations in Workforce Development**

**Thursday April 13, 2017 11:00 am - 12:00 pm**  
**Activating Third Places: Maker and Co-working Spaces**

**Thursday June 1, 2017 11:00 am - 12:00 pm**  
**Community Driven Business Retention & Expansion Programs**

**Thursday August 10, 2017 - 11:00 am - 12:00 pm**  
**Entrepreneurship: Creating a culture of Innovation**



*join us for the 2016-2017 CEDAS Academy*

# **ECONOMIC DEVELOPMENT STRATEGY** *Tapas Webinar Series*

*small plates dished up to inspire*

**Register at: [www.cedas.org](http://www.cedas.org) OR  
<http://communities.extension.uconn.edu/>**

**Thursday February 16, 2017 11am - 12 pm**

**Innovations in Workforce Development**

**Speakers**

- Patrick Flaherty, Assistant Director of Research and Information, Office of Research and Information Connecticut Department of Labor
- Mark Hill Chief Operating Officer, Eastern CT Workforce Investment Board, Inc.
- Adrienne Farrar Houel, President & CEO The Green Team; Park City Green; Next Chapter Books, Greater Bridgeport Community Enterprises, Inc Bridgeport