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
Register at: www.cedas.org OR http://communities.extension.uconn.edu/

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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

CEDAS, Inc.
Connecticut Economic Development Association

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.
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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

- **Growing**: Farmers prepare soil, plant, and tend crops on small farms growing a variety of crops.
- **Harvesting**: Farm workers often gather the ripened crops by hand from the field.
- **Disposing**: Communities collect kitchen scraps for composting to add to farm soil. Minimal packaging means less in the landfill.
- **Retailing**: Farmers, restaurant owners, or local store owners sell food to customers.
- **Packing**: Farm workers put foods in reusable boxes or bags for transport.
- **Eating**: People buy, prepare, and eat the food.
- **Transporting**: Farmers move the food by truck or van to a farmers’ market, restaurant, or local store.

Image courtesy of and adapted from http://www.nourishlife.org
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

U.S Department of Agriculture, National Agricultural Statistics Service
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)

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)
Food Hub Legal Structure & Gross Revenue
[2015 National Food Hub Survey]

(n=151)

- For profit: 38%
- Non-profit: 36%
- Cooperative: 19%
- Publicly owned: 3%
- Other: 4%

Gross Revenue:
- $10,000 or less: 19%
- $100,001-$200,000: 15%
- $200,001-$500,000: 25%
- $500,001-$1,000,000: 6%
- $1,000,001-$2,000,000: 19%
- $2,000,001-$7,000,000: 8%
- Over $7,000,000: 8%
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

Over 99% Wholesale

Less than 1% direct to consumer sales (Farmers Markets, CSAs, Farm Stands, etc.)

99%

1%
Growth in Outlets for Local Food 2006-2014

Since 2007, Growth In...

- Farm to School (430% to 4322 school districts)
- Regional Food Hubs (288% to 350 Hubs)
- Farmer's Markets (2014, 180% to 8300 markets)
Food Hub benchmarking study
Financial Models - Operational Period Comparison

[USDA Rural Development & Matson Consulting 2015]

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

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

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

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

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Assessment</strong></td>
<td>Understand supply, demand, infrastructure and competitive landscape. Determine optimal food hub business model. <em>Completed January 2016.</em></td>
</tr>
<tr>
<td><strong>Business Analysis</strong></td>
<td>Forecast steady state pro forma, to determine financial viability. Make go/no-go decision. <em>Completed March 2016.</em></td>
</tr>
<tr>
<td><strong>Operator Identification</strong></td>
<td>Search for and select operator (individual or existing business or nonprofit). <em>Completed October 2016.</em></td>
</tr>
<tr>
<td><strong>Business Planning</strong></td>
<td>Full plan detailing sales, operations, staffing, 5 year financials, fundraising requirements. <em>In process.</em></td>
</tr>
<tr>
<td><strong>Fundraising</strong></td>
<td>Develop uses and sources of funds strategy (grants, debt, equity). Secure funds. <em>In process.</em></td>
</tr>
<tr>
<td><strong>Launch</strong></td>
<td>Launch food hub to prove concept and generate initial revenue. <em>Target Spring 2017.</em></td>
</tr>
</tbody>
</table>
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 NHCOG 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)
  – 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/

• CT Dept. of Agriculture publications (www.ct.gov/doag)
  – A Guide for Municipalities: Department of Agriculture Programs and Services
  – Economic Impacts of Connecticut’s Agricultural Industry (UConn 2010)
RHODE ISLAND FOOD SYSTEM  
2015 SNAPSHOT  
LITTLE COMPTON  
POPULATION 3,492

FOOD SYSTEM

PRODUCTION & HARVESTING
- 30 FARMS
- 0 COMMUNITY GARDENS
- 1 AQUACULTURE FARMS

PROCESSING
- 6 FOOD PROCESSORS

DISTRIBUTION
- 1 DISTRIBUTORS
- 6 FARM STANDS
- 4 MARKETS
- 0 FARMERS MARKETS

RESOURCE RECOVERY
- 351 ANNUAL TONS OF RESIDENTIAL FOOD WASTE
- 379 ANNUAL TONS OF COMMERCIAL FOOD WASTE
- 0 FOOD WASTE RECYCLING FACILITIES

CONSUMPTION
- 12 RESTAURANTS
- YES!
- PUBLIC SCHOOLS PURCHASE LOCALLY GROWN FRUITS & VEGETABLES

MUNICIPAL FEE TO LANDFILL RESIDENTIAL FOOD WASTE
- $11,225

© 2015 RI Food Policy Council
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
1. Reimagine the seafood plate in the era of overfishing and climate change.
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.
Transforming fishers to restorative ocean farmers.
OYSTERS

- Filter up to 50 gallons of water per day
- Reduce dead zones
“The culinary equivalent of the electric car.”

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

Seaweeds can produce 2,000 gallons of ethanol per acre—five times more than corn.
Fertilizers: closing the nitrogen loop

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

BRIDGING LAND AND SEA FARMING
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.
GreenWave

- Replication
- Policy
- R&D

SEA Greens Farms

- Infrastructure
- Market Development
- Innovation
GUARANTEED PURCHASING
GEAR FROM PATAGONIA
PERMITTING
FREE SEED
STARTUP GRANTS
GEAR FROM PATAGONIA
GUARANTEED PURCHASING
Pollution Farming

Harvesting & Hatchery Technology
MOVING TO SCALE

Infrastructure

Market Development

Innovation

Google

Whole Foods Market

Dock & Dish

Patagonia
**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/
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