

# Farm Fresh Food Boxes Open New Markets for Farmers and Retailers, and Benefit Rural Economies

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# Background



# Recent trends disadvantage rural communities:

Big farms can sell larger volumes at lower prices to wholesalers—smaller farms can't compete (1).

Growth of national retail chains forcing smaller retailers out of business, particularly in rural areas.

Rural agricultural economies are weakened (2);

Rural consumers find it hard to access fresh, affordable healthy produce (3,4).



# Direct sales can encourage intake of healthy foods *and* improve farm profitability:

Direct-to-consumer (DTC) includes Farmers' markets and CSAs.

- DTC may provide ***economic benefits*** to the wider community (6-11)
- DTC may ***enhance social ties*** between farmers and consumers (12-14).



# However, DTC sales have drawbacks

1. Farmers' markets require transportation and staffing time; unsold produce may be wasted (15).
2. The up-front CSA subscription lowers farmer's risk and covers *operating expenses*-- but may not adequately cover *labor costs* (16).
3. In some areas, CSAs and farmers' markets have reached market saturation (5).

Overall, the economic returns from DTC sales are not well understood (11).



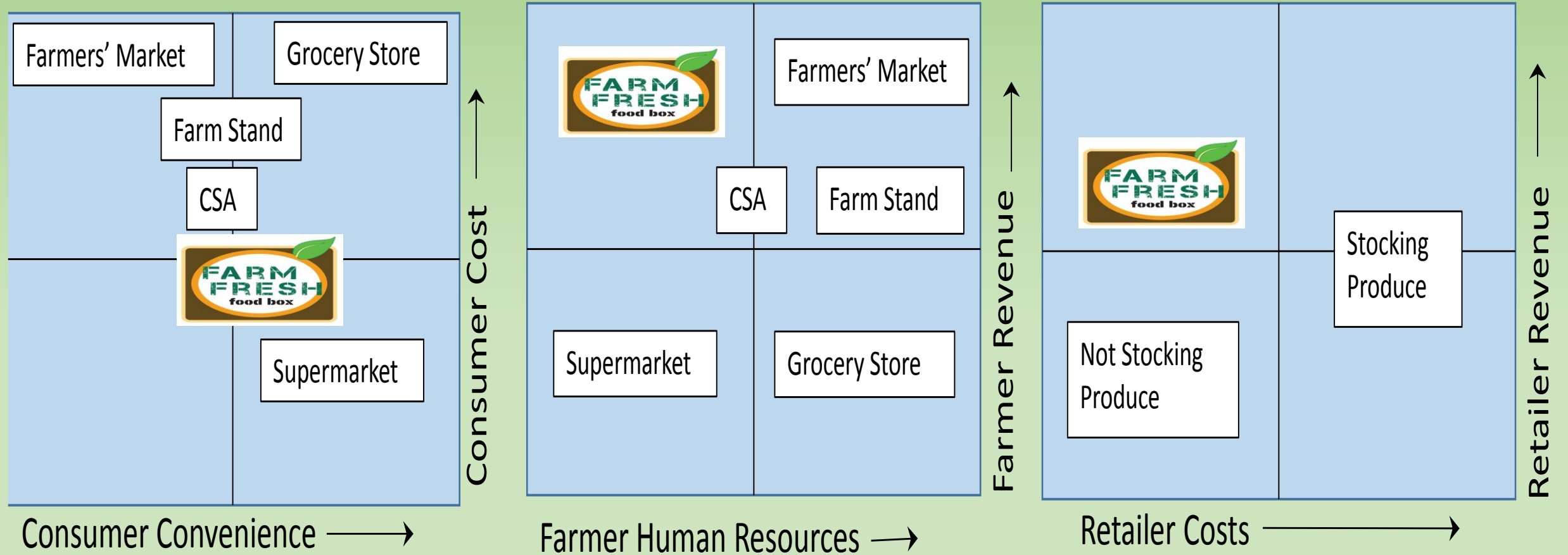


# Farm Fresh Food Box (FFFB): a DTC alternative

- **Farmers** offer weekly FFFB at participating retail sites that consumers can easily access. Box contents change throughout the season
- **Retailers** provide a drop-off point, in exchange for a nominal transaction fee. Participating retailers advertise via sandwich boards and flyers. In-store whiteboards detail the cost and weekly contents of the box.
- **Customers** pre-order a weekly FFFB at the retail site or on-line on a week-to-week basis for later pick-up. Customers can use SNAP/EBT.



# Advantages of FFFB for consumers, farmers and retailers



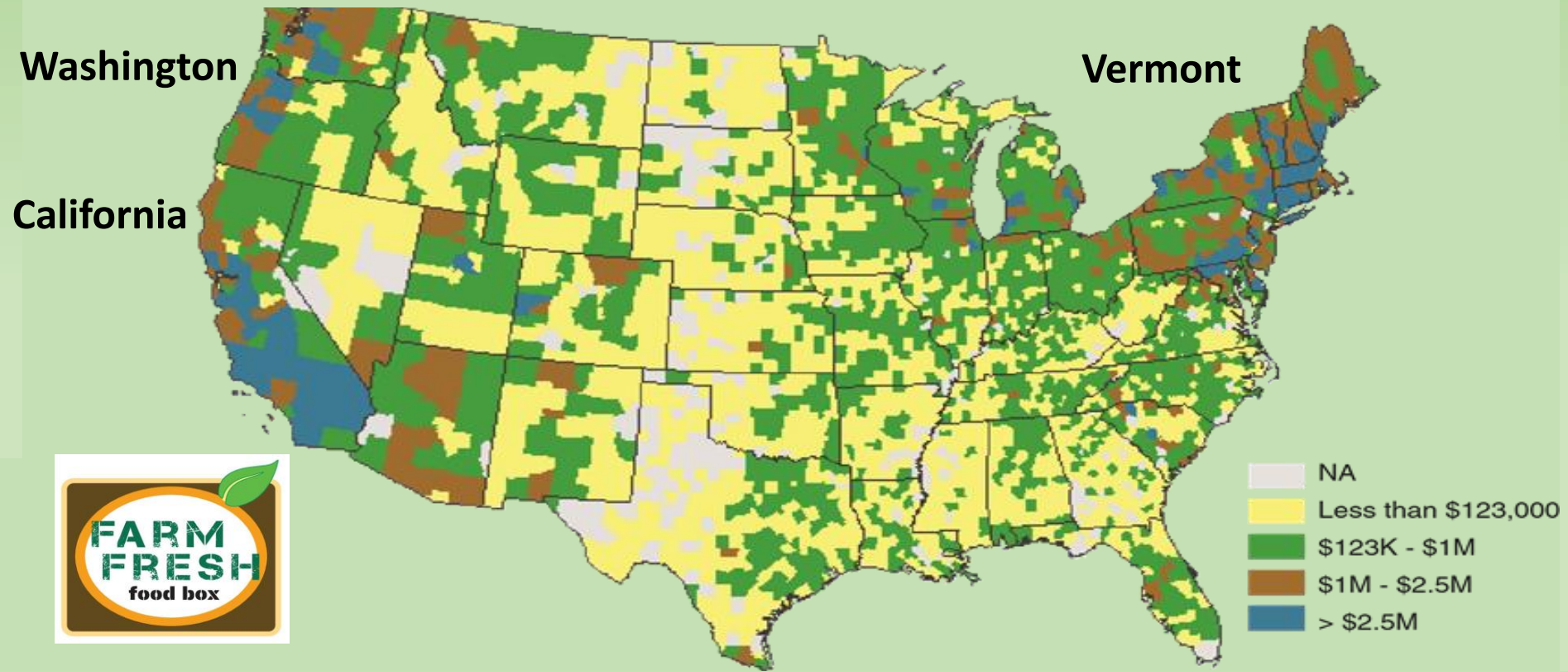
# Approach





# FFFB is a multi-state, integrated collaboration between Cooperative Extension and Researchers

## Total DTC Sales by County, 2012



Source: USDA Economic Research Service, data from Census of Agriculture, 2012.

# Extension Objectives

- Develop an innovative, low-risk market channel for 2-4 farmers in each of three geographic areas;
- Create opportunities for 4-6 retailers in each site to provide local products at no-risk, that will result in associated sales;
- Provide rural consumers with access to healthy foods at affordable prices in an accessible, convenient, and “comfortable” location, with little perceived risk;
- Determine best practices in the FFFB approach, and disseminate information widely to producers and retailers in rural communities.

# Research Objectives

- Assess the market potential for the FFFB in rural communities in three geographically areas;
- Measure economic impact of FFFB project returns to farmers and retailers and the regional economy;
- Measure acceptability and use of FFFB among consumers;
- Compare benefits and barriers of FFFB project to farmers, retailers and consumers with the benefits and barriers of other direct sales approaches, namely farmers' markets and traditional CSAs.

## Pre-Season

### Extension

- Engages Retailers & Farmers
- Provides FFFB Materials

### Farmers

- Get FFFB boxes and stickers
- Demographic Survey!

### Retailers

- Get Flyers, Sandwich boards white boards, order pads
- Trained on the Weekly Tracker by research team
- Demographic Survey!



## During Growing Season

### Extension & Research

- Ongoing technical support/data collection

### Farmers

- Tells retailer weekly box contents
- Stuffs customer survey in box
- Packs boxes & delivers to store

### Retailers

- Display promotional materials
- Takes orders, collects payments
- Relays weekly orders to farmer
- Distributes boxes

## Post-Season

### Extension & Research

- Supports data collection
- Pays participant stipends

### Farmers

- Participates in post-season interviews with researchers

### Retailers

- Participates in post-season interviews with researchers
- Gets 10% of box sales from FFFB extension team



# Outcome Measures and Analysis

## Pre-Season


- *Pre-season FFFB Roster*
- *Demographic Survey, farmers & retailers*

## During the Growing Season

- *Weekly Tracking Form*
- *Weekly Customer Survey*

## Post-Season

- *Qualitative Interview, farmers & retailers*



### Farm Fresh Food Boxes Customer Survey

Thank you for participating in the Farm Fresh Food Box program! This program is a part of a University of Vermont study looking at getting fresh food from farmers to community members. This survey is voluntary, and we greatly appreciate your feedback. If you prefer, you can complete this survey online at [FarmFreshFoodBoxes.com](http://FarmFreshFoodBoxes.com). If you have any questions or concerns about participating, please contact the main researcher, Jane Kolodinsky at [kolodinj@uvm.edu](mailto:kolodinj@uvm.edu).

Pick up date	
Farm Name	

Is this your first time purchasing a Farm Fresh Food Box?

Yes No

If not, how many Food Boxes have you purchased before today?

What do you like most about your Food Box?

What do you like least about this Food Box?

How did you feel when you opened your Food Box? Circle all that apply.

Happy Relieved Sad

Surprised Curious

Overwhelmed Satisfied

Confused Worried Excited

Misled Hungry

Disappointed

Please tell us about your experience picking up this Food Box. On a scale of 1-5, with 5 being very satisfied and 1 being very dissatisfied, how satisfied were you with:

	Very Dissatisfied	1	2	3	4	5	Very Satisfied	
Ease of ordering	1	2	3	4	5	N/A		
Convenience of pick-up	1	2	3	4	5	N/A		
Interaction with retailer	1	2	3	4	5	N/A		
Value for your money	1	2	3	4	5	N/A		
Quality of the produce	1	2	3	4	5	N/A		
Variety of produce	1	2	3	4	5	N/A		

When thinking about your Farm Fresh Food Box, please consider to what extent you agree or disagree with each of the following statements. 5: Strongly Agree, 4: Agree, 3: Neither agree nor disagree, 2: Disagree, 1: Strongly disagree

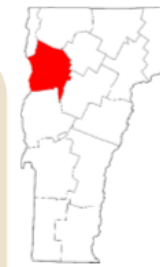
	Strongly Agree	1	2	3	4	5	Strongly Agree	
It was easy to try	1	2	3	4	5	N/A		
I could afford to try it	1	2	3	4	5	N/A		
I knew how to prepare all the items in the box	1	2	3	4	5	N/A		
I wanted to try it	1	2	3	4	5	N/A		
I had enough information to try everything in the box	1	2	3	4	5	N/A		

# Community Profiles:

- List of profile elements created
- Data sources identified for intervention sites in each state (WA, VT, WA)
- Template created and mock up for one pilot site county

## Chittenden County, Vt

[Project Introduction & Overview.]

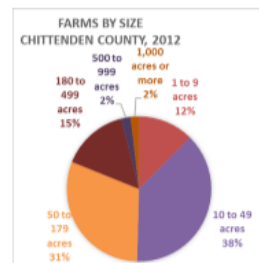


### Agriculture Overview

- Largest county in Vermont; Most food systems jobs, restaurants, stores, farmers' markets, breweries, bakeries and other food manufacturing businesses
- Strong urban farming culture; Interval – nonprofit that stewards 350 acres; Farm Program leases land and equipment to small farms; Food Hub aggregates food from local producers to Burlington area (Farm to Plate Report 2015)
- Land Use for Vegetables: Vermont, 2012, Harvested Veggies—789 Farms, 3897 Acres / Harvested for Fresh Market 777 farms, 3761 Acres; Vermont, 2007, Harvested Veg—494 Farms, 2927 Acres; 60% increase in number of farms and 33% increase in acreage
- Land Use for Veg: Chittenden, 2012, Harvested Veg—98 farms, 830 acres / Harvested for fresh market 98 farms; Chittenden, 2007, Harvested Veg—70 farms and 717 acres; 40% increase in farms, and 16% increase in acreage
- Total value of sales of veggie crops in Vermont, 2012 \$21,274,000, 12% of crop sales., a 61% increase from 2007.
- Total value of veggie crop sales in Chittenden in 2012 was \$5,089,000, which was 26% of all crop sales, and a 64% increase from 2007 sales.

	Vermont	Chittenden County	Orange County	Lamoille County
Number of Farms	7338	587	748	349
Land in Farms (acres)		73,583		
Average Farm Size (acres)		125		
Median Farm Size (acres)		49		
Market Value of Products Sold (dollars)	\$ 76,105,000	\$ 42,235,000	\$ 53,540,000	\$ 21,334,000
Crop Sales (dollars)		\$ 19,854,000		
Livestock Sales (dollars)		\$ 22,381,000		
Average Sales per Farm (dollars)		\$ 71,951		
Government Payments (dollars)		\$ 609,000		
Average Government Payments per Farm (dollars)		\$ 3,232.00		

- Top 5 Livestock Items:**
1. Cattle and Calves
  2. Layers
  3. Horses and Ponies
  4. Sheep and Lambs
  5. Broilers and Other Meat Birds
- Top 5 Crop Items:**
1. Forage land used for hay, haylage, grass, silage and greenchop
  2. Corn for silage
  3. Harvested vegetables
  4. Corn for grain
  5. Sweet corn



### CROP SALES (2007 AND 2012)

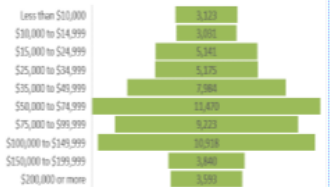


## Economic Characteristics

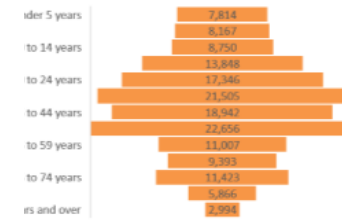
Rate (5%) [Chittenden, 2012]  
 268; management, business, science & arts – 47.2%; Service occupations – 47.2%; construction, and maintenance occupations – 6.5%; occupations – 7.8%. (2015, chittenden– ACS n, 2012)

er	Percent
50	
,295	18%
,159	21%
,470	18%
,223	15%
,351	29%
	11.40%
	11.90%
	49%
	51%
	36.3
	12.70%
	\$40,723
	5%
	11.40%
	95.40%

### Income and Benefits (In 2015 Inflation Adjusted Dollars) Chittenden County, Vermont



### Age Distribution Chittenden County, Vermont, 2011-2015 Estimate



Number of establishments	Number of employees
572	15,998
841	12,747
180	8,768
455	8,382
751	6,365
587	5,162
262	4,794
125	4,087
145	3,920
298	3,102





# Initial Findings



# Preliminary Results:

- Two farmer/retailer pairs were identified as test sites for the Vermont pilot
- Overall, 16 boxes sold during a five week period in Fall 2016.
- At least 2 customers purchased boxes multiple times



# Retailer/Farmer Feedback:

## Retailers

One retailer found running credit cards onerous

Didn't generate new customers -but confident it will do so in future.

Customers were happy /excited about the boxes

## Farmers

Incorporating FFFB along side CSA packing is easy

Both farmers were grateful for Extension's initial outreach to retailers

Farmers may be more motivated to "make it work"

*"[FFFB] is a good way to connect with community, to bring in customers, and connect people with the farm".*



# Lessons learned:

## **Process:**

Establish clear expectations for all participants

Plan logistics, monitor and provide support as needed

## **Communication:**

Determine best manner and frequency to talk to each person in the project.

## **Marketing:**

Publicize FFFB to create “buzz” prior to launch

Offer several sizes and include recipes in the box



# Lessons learned, cont.

## Reduce respondent burden

Review data elements, to eliminate non-essential variables

Revise tracking form so that it is collected only once, at the beginning of the season

## Customer surveys

Develop mechanism to follow up with customers who don't fill out paper surveys.

Email surveys may pose several challenges.

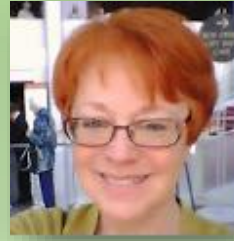




# Project team: Investigators



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# Example of DTCs that have been shown to benefit farm profitability and community economics (11).

Author (year)	Returns to producers	Increase in Employment	Increase in Gross Output	Increase in Personal Income
Hughes, 2008	Not reported	119 jobs, (82 net)	\$2.4M (net \$1.1M)	\$0.7M (net \$0.2M)
Henneberry, 2009	Not reported	113 jobs	\$6M	\$2.2M
Otto, 2010	\$29M in direct sales, 55,000 visitors	576 jobs	\$59.6M	\$17.8M
McCarthy, 2001	\$550K in direct sales for vendors	Not reported	\$450K in enhanced sales for local businesses.	Not reported
Meyers, 2001	Annual revenues of \$192,030	Not Reported	\$966K in enhanced sales for local businesses.	Not reported



# Thank You & Acknowledgements



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This work is supported by the U.S. Department of  
Agriculture, Agriculture and Food Research  
Initiatives award number: 2016-67023-24853

