Rural communities have experienced a dramatic increase in farms selling directly to consumers (DTC) — through farmers markets, Community Supported Agriculture (CSA) farm shares, roadside stands, and directly at the farm though U-picks and on-farm stores. Other access points include Farm to School, institutions, and restaurants. However, many small retailers in rural communities have gone out of business as shoppers switch to other shopping options in their community and neighboring cities.
Additionally, farmers’ livelihoods are often challenged as the growth in farmers’ markets and CSA’s flattens due to market saturation. To better understand the motivation of consumers, farmers, and retailers participating in direct markets and to pilot an innovative DTC approach, a multi-state collaboration between Extension and research was formed – the Farm Fresh Food Box (F3B). This National Institute of Food and Agriculture USDA grant-funded project (VT-0075CG) tests an entrepreneurial model in which farmers and rural retailers partner to offer pre-ordered boxes of fresh local produce to local consumers. The benefits and obstacles of this model will inform how rural communities can maintain economic vitality while providing local, seasonal produce at an affordable price point in the community.

THE FARM FRESH FOOD BOX MODEL
Farm Fresh Food Box (F3B) is a novel direct marketing approach designed to open new market venues for farmers, enable small rural retailers to carry fresh produce at low risk, and increase convenient access to affordable local produce for consumers. Customers pre-pay a set price when ordering from participating retailers for a box of farmer-selected seasonal produce for pick-up later in the week. Unlike a CSA, there is no upfront seasonal commitment, and customers can shop in convenient surroundings. For an equivalent amount of produce, F3B prices are typically set lower than farmers’ markets but higher than CSA prices. Contrasted with farmers’ markets, F3B offers farmers guaranteed sales. It also allows retailers to expand their produce offerings without investment in new coolers and without the risk associated with stocking highly perishable items. It may also result in collateral sales. The Farmer receives the amount paid by the customer for each F3B, and the retailer receives a small transaction fee of $2.00/box, paid for from the research grant.

Currently, F3B is being piloted in Skagit County, Washington; Sonoma County, California; and Brattleboro, Vermont. County-based Extension faculty recruit local farmers and retailers to identify pairs to team-up for the harvest season. Marketing material—posters, handbills, newspaper articles, Facebook page—promote the program in the local community and alert consumers of the contents in the weekly food box. Other promotional tools, such as attractive sandwich boards, are placed at the retailers with the name of the partner farm and photo of the farmer who provides the weekly box. New wax, single-use boxes are provided to the farm at the beginning of the program as part of the research grant. The research partners collect survey and interview data from participating farmers, store

THREE TARGET GROUPS FOR THE FARM FRESH FOOD BOX

![Farmers](farmer_icon)  ![Retailers](retailer_icon)  ![Consumers](consumer_icon)
owners, and customers. The F3B research aims to identify and measure the success of this new market channel for delivering local food and associated economic benefits to farmers, retailers, and communities.

**BACKGROUND**
Overall, in 2015, more than 167,000 farms sold locally-produced foods through “direct to consumer” (DTC) marketing practices, resulting in $8.7 billion in revenue (USDA, 2016). The “Trends in U.S. Local and Regional Food Systems Report,” estimates that between 2002 and 2007 farms selling DTC increased by 17% and sales increased by 32%. However, between 2007 and 2012, farms selling DTC increased by only 5.5%, while DTC sales remained flat (USDA, ERS 2015). This plateau in DTC revenues may be due in part to the growing popularity of locally-grown foods being offered in grocery stores, restaurants, and institutions, which compete with DTC consumer purchases.

**FARMER MOTIVATION**
Local DTC markets typically involve small farmers, heterogeneous products, and short supply chains, with farmers handling storage, packaging, transportation, distribution, and marketing for their own products. For farmers, the main attractions for selling DTC are better cash flow, control over production planning, the ability for greater flexibility in product offering, and relatively higher price points compared to other marketing channels. Farmers have been shown to benefit from CSAs via improved financial security, decreased time and money spent on marketing, particularly during their growing season, and reduced production costs. Indeed, compared to farms selling through conventional markets, farms selling local food through DTC marketing channels were more likely to remain in business between 2007-2012 (USDA, ERS 2015).

**CONSUMER MOTIVATION**
From a customer perspective, the growing interest in local foods in the United States is attributed to an interest in environmental and community concerns—supporting local farmers and the local economy with increasing interest in access to healthful foods (Martinez, 2010). Customers who “buy local” often perceive the quality and freshness of local food to be superior to that of conventional produce.

Consumers who are willing to pay higher prices for locally-produced foods place importance on product quality, nutritional value, methods of raising a product and those methods’ effects on the environment, and support for local farmers (Vasquez, 2017). However, convenience, related to shopping, preparing, storing and preserving food, also plays a role (USDA, AMS 2017).

**FINDINGS**
The Farm Fresh Food Box is a promising DTC model that benefits both the farmer and consumer while increasing access to local food. Initial feedback from a Washington state customer speaks to the perceived value of the food box. She was impressed with the quality and price of the items in her weekly box stating, “When I go to the local store to purchase cilantro, the bunches are small and wilt quickly, but the cilantro from the Food Box lasts longer, is a larger bunch with a fragrant smell, and though the cost is comparable to the grocery store where I shop, the value from the Food Box is definitely better.” One week, kohlrabi was included in the box offering, prompting the store clerk to investigate online to learn about this root vegetable he had not heard of before, and was pleasantly surprised by the experience.

Retailers shared that though the offering of a F3B did not significantly increase overall stores sales, F3B was a service they felt added value to their store’s place in the community and expressed
interest in continuing to partner on the project in the upcoming year.

For one Washington farmer, F3B was an opportunity to establish a business relationship with a rural store owner that was located not too far from his farm. “I have tried for a couple of seasons to get the owner to sell my produce without success. The F3B was my entry into a business and personal relationship. The owner and his wife have been great to work with.”

One risk of this experimental sales channel for the farmer and retailer is that there may be no or few orders, resulting in ineffective use of time. Both phone and text messaging were used by the farmers to communicate harvest items offered in the weekly box and the retailer on the number of box orders each week. In one farmer-retailer pairing, the farmer discontinued offering the boxes since orders were only one or two per month, and the location of the store was not on his usual route.

DISCUSSION
Several limitations have been identified in the pilot phase:

1. Initially, there was concern that small rural stores would not have adequate refrigerator space to accommodate additional inventory. However, the schedule for drop off and pick up did not prove to be a concern for the retailers.

2. Although the 2014 Farm Bill included provisions to allow SNAP benefits to be redeemed at non-traditional retailers to improve access to healthy food options (Bolen et al., 2014), the new rules stipulate that SNAP payment must be made directly to the farmer with only a 14-day window between purchase and delivery. SNAP benefits may not be used to pay retailers in advance for groceries/food that is then picked up at a later date. Since the F3B program requires the customer to prepay for the food box, SNAP benefits cannot be accepted for the F3B at this time. Researchers are investigating strategies for preorder and acceptance of SNAP EBT for payment so that SNAP shoppers can take advantage of the F3B opportunity.

3. Since orders are placed in person at the retailer, the customer has an extra shopping trip—one to order and pay for the produce box and again the following week to pick up the produce box. An online order and payment system may help to reduce the number of trips to the retailer.

CONCLUSION
The local food movement, still small in comparison to conventional food consumption methods, is gaining momentum in connecting food producers and food consumers in the same geographic region. F3B is a low-risk opportunity for farmers that extends their marketing beyond current well-defined DTC farmers’ markets while strengthening community vitality. Other business models are emerging to take advantage of the growing demand for local food, including online grocery delivery and larger supermarkets featuring local produce. The Farm Fresh Food Box model offers an alternative to the complex supply, demand, and distribution challenges faced by producers and retailers of fresh, local foods while overcoming barriers that consumers face in accessing affordable, healthy food. *