



CSA & Snap: Business Opportunity For Farmers, Improved Nutrition For The Community

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Abstract: Community Supported Agriculture (CSA) has become a popular alternative available to shoppers looking for local, seasonal produce at a fair price. The numbers of farms offering a CSA has increased in recent years, from an estimated 60 farms in 1990 to over 7,000 today. From the farmers' perspective, the potential economic benefits of the CSA model include reliable source of income, decreased investments of time and money into marketing, and decreased production costs.

The typical requirement of a lump sum payment in advance of the growing season has, in the past, attracted CSA customers with higher incomes and a deterrent for low-income families unable to pay a large deposit at the beginning of a growing season. However, low-income families participating in the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps, are now able to use benefits to purchase a CSA subscription. The United States Department of Agriculture, Food and Nutrition Services (USDA FNS), the agency that regulates SNAP, is committed to expanding access to farm fresh produce - fruits, vegetables, and herbs - to SNAP recipients while supporting economic opportunities for farmers and producers. USDA rules now allow SNAP benefits to purchase a CSA share, provided that the CSA is operated by a SNAP authorized farm or retail food store and that pre-payment for the CSA share is done no more than 14 days in advance of receiving the produce items.

This paper describes a SNAP CSA pilot and introduces the Farm to Families (F2F) Toolkit which was developed to share best practices and strategies to engage the low income consumer in a CSA, in particular those consumers that receive SNAP Benefits.

Key Words: Community Supported Agriculture, CSA Food Box, SNAP shoppers, produce incentive programs

Introduction

Farmers looking to expand their customer base in the direct-to-consumer marketplace might consider offering a Community Supported Agriculture (CSA) subscription program to include consumers across the economic spectrum. In the past, the typical CSA customer was likely to have a higher income (Perez, Allen, & Brown, 2003). However, studies examining factors affecting interest in farm-to-consumer direct markets found that consumer income by itself was not significant (Kolodinsky and Pelch 1997; Onianwa, Wheelock, & Mojica, 2005), suggesting that target marketing and innovation in the CSA delivery model may attract a wider consumer-base to the direct-to-consumer market, including the CSA subscription.

A SNAP CSA is a small business innovation that supports a sustainable farming system by opening new revenue streams for farmers while providing healthy local food to community members with limited incomes. SNAP is an acronym for the Supplemental Nutrition Assistance Program, formerly known as food stamps. The purpose of this paper is to describe a CSA pilot program designed to serve SNAP participants and to introduce the Farm to Families (F2F) Toolkit—a guide for farmers interested in offering a SNAP CSA program—to successfully connect limited-resourced consumers with local, seasonal produce. The toolkit was developed based on first-hand experience in the creation of marketing tools, establishing payment and delivery protocols consistent with the USDA rules, and design of produce fact sheets with recipes for SNAP shoppers to optimize the local produce. We share responses from farmers on their motivation to participate in the CSA marketplace and present a price comparison of produce purchased through CSAs, farmers market, and national retailers.

In 2017, Viva Farms, a nonprofit farm business incubator, received a United States Department of Agriculture National Institute of Food and Agriculture (USDA/NIFA) grant to pilot a CSA offered to SNAP recipients that incorporated a cost offset model. Viva Farms provides beginner farmers with necessary training, resources, and support to build a successful farm business. Viva Farms operates 120 acres in Washington state in Skagit and King counties, supporting 30 farms businesses.

The Viva Farms SNAP CSA was offered over three growing seasons, from 2018 through 2020. Viva Farms aggregated produce from member farmers, guided production, adjusted produce assortment weekly based on season availability, provided packing for the 25-28 week season, and served as liaison between farmer and customer. Some of the Viva farmers, about 15%, also offered an independent CSA. The F2F pilot project offered SNAP shoppers an incentive when purchasing a short-term subscription of four weeks by offering a 1:1 match, which equated to a 50% off discount and described as “Buy 2—Get 2”.

The Traditional CSA Model and Variations to Reach New Audiences

The CSA is an alternative food network which offers consumers the option to subscribe to and pay a lump sum in advance of the planting season for a share of a farmer’s production. The origins and development of CSA has been described extensively in the literature (DeMuth, 1993; Woods, Ernst, M., & Tropp, D., 2017).

It is estimated that between 30,000 and 50,000 U.S. consumers belong to a CSA. (Kime, Kelley & Harper, 2014). One consumer sector that now has purchasing power to participate in a CSA are shoppers using SNAP Electronic Benefit Transfer (EBT). This federally funded program provides people with low incomes monthly benefits to buy food and the potential for many families to purchase healthy food. About 38 million people in the United States benefited from the SNAP program in 2019, about 12% of the total population.

Consumer motivation to participate in local, direct-to-consumer marketplace, such as a CSA or Farmers Market has been attributed to interest in the environment (sustainable food production, farmland preservation), concern about how food is grown (local, organic), interest in personal health (increase vegetable and fruit intake, chemical sensitivities), and

interest in food system and community resilience (providing support to local farmers, preserve farmland) (Brehm & Eisenhauer, 2008).

In the past, rules established in SNAP legislation restricted the advanced purchase of food. The Agriculture Improvement Act of 2018 changed the SNAP rules to allow non-profit and for-profit direct marketing farmers that operate a CSA to accept payment up to 14 days in advance of delivering the food to the SNAP customer or making the food available for pickup. Modifying the traditional CSA pay-upfront model to intermittent payments throughout the harvest season affords the SNAP shopper the opportunity to ‘join’ a CSA, providing an additional revenue stream for farmers.

The F2F pilot conducted pre-season surveys of 104 SNAP and SNAP-eligible clients, of which 78% had not heard of a CSA and were not familiar with the model. When the concept of the CSA was shared, there was curiosity about the program, with a willingness to try. For some the cost seemed high, while others commented on the value they perceived: “The price is good especially because it is organic.” Other concerns mentioned included receiving vegetables that were unfamiliar to shoppers, they didn’t know how to prepare, and/or kids wouldn’t eat.

Logistical barriers experienced by low-income consumers who have participated in CSAs include unfamiliarity with CSA vegetables, the need for more time to prepare whole foods compared to processed foods, inconvenience compared to one-stop shopping at a supermarket, and commitment to pay prior to receiving the produce (Andreatta & Wickliffe 2002; Harmon, 2014). The F2F SNAP CSA eliminated the need for upfront costs by developing an intermittent payment schedule that did not exceed the 14 day advance payment rule and spanned over a four week four box delivery schedule. Produce fact sheets and recipe videos were created to increase familiarity with local produce and address the concern of time needed to prepare whole foods. Ammerman, et al., (2017) found that once SNAP shoppers better understood the nature of using SNAP to purchase a CSA share, they perceived several advantages including less worry about going to the local grocery store to buy vegetables.

Viva Farms saw a steady increase in SNAP customers year over year of the pilot project. Table 1 lists the number of SNAP customers who participated at some point during the year, and the number of boxes sold to SNAP customers. In 2020 , the pilot project ended three months before the end of the harvest season, so it is likely that in year three, 2020, there would have been a higher customer count and higher sales (*).

Year	Number of Unique SNAP shoppers	% Increase	Number of SNAP incentive share sold	Total Number of CSA Box share sold	% of total CSA box share to SNAP customers that used incentive
2018	14	n/a	109	2,650	4%

2019	50	17%	631	4,758	13%
2020	62 (*)	13%	940	8,056	12%

Table 1. CSA sales to SNAP customers offered incentive.

Customer year-end surveys revealed that 77% of SNAP customers had an intention to renew the next season; 88% stated the CSA made produce more affordable; 88% shared that they ate more fruits and vegetable because of the CSA program. SNAP CSA customers, after participating in the F2F pilot agree that the value of the produce received was appropriate for the price paid.

Feedback included *“The price was spot on”, “I thought the price was very good”, and “Amazing bargain deal for the quality of fruits/veggies. Happy to pay the weekly fee. And the produce lasts so long”*. Reasons for participating in the CSA included *“Eating locally seasonally without having to think about it much - I find it so much easier than shopping at a farmers' market!”*, *“Fresh, high quality produce for a good price”*, *“Good mix of produce and chance to support local agriculture”*.

Motivation for Farmers to offer a CSA: Family, Community and Well-being

Viva farmers participated in year-end surveys to identify the strength of the program and areas to improve. Farmers grew a variety of crops on their land, from just one crop to as many as 45 crops. Two-thirds of the farmers have been farming 3 or fewer years. A variety of sales channels were pursued by Viva farmers—farmers market, farm to school, direct to restaurants, wholesale, food hub, food bank, and CSA. 15% of the Viva farmers offered a CSA independent of the Viva aggregated CSA.

The non-monetary motivation to participate in farming was gathered with the question: *What non-quantifiable benefits do you receive from operating your farm business? How are non-monetary values and goals realized?*

The importance of family was expressed: *“Working with family is really important”; “We have a large family and I want to have a place for my children”; “big benefit because we have small children and we want to teach them to work or at least that they can see us work and they can help us when they can and they can learn the value of work and earning”*.

The opportunity to contribute to the community: *“It was good to know that I was able to do my part during these uncertain times”; “donating food was gratifying”; “Educating customers on the whole value of their food and the impact on the environment. Explaining the difference between locally grown organic produce vs. buying organic at Safeway”; Working with culturally significant foods/crops, sense of purpose, opportunities to organize and work with other food systems workers and farmers, opportunities to educate”*.

The value of well-being: *“Farming is also great for my well being as I'd get exercise, be eating healthier and crop farming is satisfying work”; “Food stored, seed saved, hours of therapy out in the field”; “I really feel that there is much non monetary value to seeing the sunsets and sunrises as I work, to hear animals, to experience all the sensations of life”*.

A revenue stream for the farmer: "CSA model is great. We love to grow unique/desired crops specifically for the CSA program. In addition, the growing number of members in the Viva CSA has helped grow our overall sales"; "the growing number of members in the Viva CSA has helped grow our overall sales"; "I would like to understand better what are the desires of CSA customers. I would like to plant more crops that they will want".

In a study conducted by Paul (2019), it was found that CSA farmers earn more farm income than other farms across the United States on average, but they still earn far below the median national income and generally fail to earn a living wage. The value of the CSA model for the farmer was the improved reliability of income although it failed to provide adequate income to farmers. Despite these findings, CSA farmers stressed the importance of the broader social, ecological, and economic benefits to farming. These non-monetary motivations were echoed in the responses of the Viva farmers described above. Although non-market benefits are a significant source of well-being from the CSA farmers' perspective, it appears that the CSA needs to be combined with other market channels to support a livelihood.

In post-season surveys, 19 of 22 framers agreed with the statement "Do you see economic value in accessing CSA markets?". One farmer commented "We really like our CSA model and have built strong relationships with local food outlets and food access organizations, many of which were new due to COVID." And another shared "the CSA, along with Farms for Life and other wholesale outlets, work well for us. We're able to meet our economic goals in a way we enjoy."

Price Comparison of CSA, farmer market, and retail outlets

When it comes to offering a CSA share at a discounted price, it is important to make sure it's not the farmer who is bearing the burden of the reduced cost. Two common approaches in determining the share price of a CSA share is (1) starting with the retail value or (2) working backwards from cost of production for a share (Ross, 2020). Viva Farms determined the price of their CSA shares by comparing the price of produce assumed to be in the box each week with the wholesale market prices. It was assumed that each week, 7-10 produce items would be in the box. A standard mark-up fee was then added to the cost of the box to help offset the costs associated with planning, promoting, packing, and delivering the CSA.

In the summer of 2019, a price comparison was conducted over a four week period. The CSA box contents were catalogued, weighed, and measured. The edible serving sizes of the produce in the box was calculated based on the USDA MyPlate fruit and vegetable serving size to meet healthy eating guidelines. Table 2 reflects the findings of the price comparison between CSA box, farmers market and retail outlets. The F2F small CSA box provided between 35-45 recommend servings of fruit and vegetables, meeting the suggested intake for 1 adult for one week or half of the suggested intake for a family of two. The average retail cost of comparable produce was estimated to be \$32.00 per week, or an average of \$128/month. A small CSA box, without the incentive cost \$20.00, and with incentive, the customer cost was \$10. The SNAP CSA with or without an incentive was a lower price than comparable retail-priced produce, representing a monthly cost

saving of approximately \$48 for non-incentivized CSA box and \$88.00 per month for SNAP shoppers offered the incentive.

Table 2. SNAP-CSA cost comparison, estimate of servings in small box. Cost to SNAP shopper: \$40 for 4 weeks or \$10 per weekly box						
Week 11						
Box items	descriptor	estimated serving	MV Farmers Market	Co-op	Walmart	Safeway
Tomatoes	Heirloom - 1 large 3 small -	5 - 1/2 cup serving	\$5/#	5.49/#	1.48/# slicing red,	2.49/# slicing red,
collards	1 bunch - 8 stems	8 - 1/2 cup serving	\$3/bunch of 8 stalks	2.49 for 10 stalks	1.48 for 15 stems -	1.99 for 7 stems - not
sweet onion	1.5# sweet	flavoring	\$1 each - comparable quantity would require	1.48/#	1.18/# wlla walla sweets	1.90/# organic white
green beans	1.5 # bag (1#=3 1/2	5 cups or 10 1/2 cup	\$6/#	3.29/#	1.68 for 1.5# bag	2.99/#
raspberries	6oz	4	\$4	4.49	3.76 organic	3.99 not
blueberries	1 pint	4 servings	\$4	4.69	1.98	3.99 for 10 oz
salad mix	8 oz bag	8 - 1 cup serving	\$3 for lettuce bunch	4.99 for 8 oz bag	3.46 for 5 oz organic	3.99 for 5 oz organic
dill	1 bunch	n/a	not available	2.49	1.98	2.50 - organic
Cost Estimate	\$20.00	~39 servings	\$35.50	\$34.62	\$20.08	\$22.90
Week 12						
Box items	descriptor	estimated serving	MV Farmers Market	Co-op	Walmart	Safeway
Raspberry	2 1/2 pint	8- 1/4 cup	\$4.98/pint (\$10)	\$4/per 1/2 pint (\$8)	3.69 per pint (\$7.38)	2 pints for \$6
Beets	3 per	3	2.5/# (\$1.25)	3.5/# (\$1.75)	1.94/# (\$1)	2.99/#
Carrots	6 per bunch	6	2.5/#	2.49 bagged organic	0.96/#	1.99/# organic
jalopeno Peppers	2	flavroing	25 cents each	7.99/# (.50)	1.38/# (.15)	2.79/# (.45)
Basil	1 bunch	flavoring	not available	2.99	2.98 for basil	2.50 organic
Summer Squash	1#	4	\$3/#	2.50/#	2.99	2.49/# organic
Zucchini	1#	4	3/#	2.99/#	1.38/#	2.49/#
scaloped squash	1#	2	3/#	2.99/#	na	2.49/# organic
tomatos	2 pints	6	5.50/pint (\$11)	4.99/pint organic (\$10)	4.98 organic medley (\$10)	3.99 organic (\$8)
leafy greens- bag	8 oz bag	8	2 for \$5	4.99/8z organic	4.76 for 2#	4.99 clam shell 10 oz
garlic	1	flavoring	\$3	5.99/# (.50)	0.50	0.79
Estimate	\$20.00	~40 servings	\$42.00	\$39.70	\$31.64	\$33.69

week 13						
Box items	descriptor	estimated serving	MV Farmers Market	Co-op	Walmart	Safeway
Daikon Radish	3 large	6	na	1.99/#	na	1.99
Savory	one bunch	flavoring	na	2.99	na	na
cherry tomatoes	pint box	6	5.50/pint	2.99	4.45 organic	5.99 organic
lettuce	8 oz bag	8	\$3/bunch	\$4.98	\$4.68	4.99 or 10 oz
Kohlrabi	one large (1#) =1.75 cup	3.5 1/2 cup serving	\$2 each	1.99/#	na	3.99/#
Onions	2 small	flavoring	\$2/3	1.19/#	.88/#	1.79/#
rainbow chard	8 stems	4	3.25	2.49	na	2.99 organic
zucchini	2 small	4	3/#	2.99/#	1.38/#	2.49/#
yellow squash	1 small	2	3/#	2.99/#	1.38/#	2.49/# organic
strawberry	1 pint	4	4	5.49	1.94	4.94 organic
Estimate	20.00	~37	28.75	30.09	15.67 (4 items not included)	31.66
Week 14						
Box items	descriptor	estimated serving	MV Farmers Market	Co-Op	Walmart	Safeway
Raspberry	2 1/2 pint bxes	8	5.00 for 2 1/2 pints	3.69/pint (7.38)	not available - strawberry	\$6.99 for 12 oz
cucumber	1 large	6 - 1/2 cup servings	not available	2.29/#	1.50 each (organic)	.79 each
zuchnni	2 (1#)	4	\$2/#	2.99/#	2.96/#	1.99/#
scallop squash	1 (1/2#)	2	\$1	2.99/#	not available	not available
carrots	1 bunch/5	5	\$3	\$2.49	.96 package	2.99 (organic)
green beans	1 # (3 1/2 cups)	7	\$5.39	\$3.29	\$1.68	\$2.99
bag lettuce	8 oz	8	\$3.25	\$4.99	\$4.26	\$5.00
cherry (grape) tomaotes	large pint	4	\$5	\$4.99	\$2.96 (organic)	\$5 (organic)
bok choy	2 whole (1#) = 2.5 cups	4	n/a	\$2.90/#	.87/#	\$2.99/#

onion	1#	flavoring	\$1.00	1.19/#	\$1.18	\$1.99/#
Estimate		~47	25.64	30.92	17.95	25.84

The Farm to Families Toolkit

The F2F Toolkit, divided into three sections, was developed in partnership Viva Farms staff and this researcher to share lessons learned, describe protocols for best practice, and share replicable templates to guide other farmers interested offering a CSA to SNAP shoppers.

The *Marketing and Outreach* section describes strategies for connecting with potential customers. A simple explanation to describe the cost offset was decided by the team, with several iterations tested. The phrase “buy two get two” provided the elements of the payment strategy. This was distinct from ‘a 50% discount’ or ‘half off’, since ‘buy two get two’ expressed the number of boxes a customer would receive and supported the commitment of 2 purchases with an additional 2 at no cost. Marketing plan steps and social media recommendations are accompanied by printed posters and templates that can be replicated.

How to best receive payment is highlighted in the section on *Planning and SNAP for Transactions*, which provides links to valuable resources on USDA guidance to stay current with possible rule changes, and details the procedure followed for customer sign-up, EBT benefit payment protocol, and equipment needed to accept EBT swipes. A price comparison of retail and direct-to-consumer produce is presented in a detailed format, which represents four weeks (four boxes) of a season. The produce in each CSA box is itemized with a descriptor, estimated serving size, and unit cost for each item and listed for each outlet.

The last section *Food Education and CSA Recipes* supports the farmer in sharing valuable preparation ideas so that the consumer optimizes the produce in the CSA box. Links to pictorial recipe sheets, F2F video recipes featuring local, season produce, and web-based nutrition education designed with SNAP customers in mind are listed with links to the resources.

Discussion and Conclusion

The USDA is committed to expanding access to farm fresh produce - fruits, vegetables, and herbs - to SNAP recipients while supporting economic opportunities for farmers and producers. Policy changes in the USDA SNAP program can benefit both the consumer by reducing barriers and the farmer by creating a new customer base and revenue stream. Survey findings suggest that the SNAP shopper is not familiar with the CSA model creating an opportunity for USDA to promote CSAs through outreach to increase awareness. When engaging in a CSA, the current rules require the customer must return every 14 days to make a payment for their CSA share. If the advanced sale could be extended to a longer time frame, beyond the 14 day limit, it would make it easier for the SNAP shopper to access and would be more similar to payments set-up for the non-SNAP shopper. An online payment is now available for some retailers but not farm businesses. By allowing the online option for payment for the CSA share paid with SNAP benefits, it would ease the burden of an in-person payment, which is a barrier to participation in the CSA.

The F2F toolkit was designed to encourage, inspire, and guide the farmer in establishing a CSA that can be offered to families receiving SNAP benefits and other consumers with limited resources, without being a financial burden for the farmer. The price comparison conducted on the SNAP CSA box illustrates how the cost for fresh, seasonal produce is lower than retail price with or without an incentive.

The F2F Toolkit supports farmers/producers in successfully participating in promoting food security through innovative small business practices while contributing to a sustainable farming system. The lessons learned, procedures followed, and resources developed can be a reference for farmers adopting a SNAP CSA model. Although Viva Farms, as a non-profit farm business, which aggregated produce from their farmers and packed and delivered boxes to pick-up locations in the community, the ideas and resources in the Toolkit can guide individual farmers in establishing a CSA program to engage the SNAP customer.

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