Community Supported Agriculture

CSA

Profitability Analysis:

Case Study of Three Nova Scotia Farms

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NOVA SCOTIA

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Preface

This report was commissioned by a committee composed of Becky Sooksom, THINKFARM Resource Coordinator, and Claire Hanlon-Smith, Business Development Specialist, of the Nova Scotia Department of Agriculture; and Av Singh, Organic and Rural Infrastructure Specialist with Perennia. The report was presented by author Gary Morton at a workshop hosted by the Atlantic Canada Organic Regional Network (ACORN) in Bible Hill on January 21, 2013. The participation of the three Nova Scotian farms profiled in this report is gratefully acknowledged.

Introduction

The CSA (community shared agriculture) concept developed in the 1960's and grew out of Swiss and Japanese women's group initiatives to create new and better ways to access safer, fresher, food directly from the farm. The original CSA focus was on re-establishing connections to the land/farm for urban dwellers and to foster a new and stronger sense of community, cooperation and social justice in regards to food security. By the mid 1980s the CSA concept had begun to establish in the USA. Farmers would receive a fair price for products sold (payment up front), while the consumer would get a fresher food value direct from the producer, contributing to the sustainability of the local agriculture community. The CSA concept is about; sharing crop risk, building community, health, reducing the carbon footprint, access to fresh local food, value for dollars spent, education and connection with the farmer.

There have historically been two CSA models, (1) the shareholder CSA model and (2) the subscription CSA model. The **shareholder CSA model** is consumer driven, based on a core group that organizes the share subscribers and then hires a farmer to grow the crops for the group. The key decisions on the crops to be grown are made by the shareholder group, not the farmer. A **subscription CSA model** is farm driven, where the farmer organizes the CSA, makes all of the management decisions and finds the subscribers. Both concepts are the result of growers and consumers partnering together to share the risks and benefits of food production. A CSA is primarily about accessing locally produced food, paying monies to the farmer prior to planting and predetermined weekly deliveries of the harvest to members and subscribers.

The benefits of a CSA are many:

- Farmers gain access to markets for their products.
- Consumers receive fresh safe produce directly from the farm.
- The farmer receives interest free money up front to cover crop investments.
- A loyal connection develops between the consumer and the farm producer.
- Consumers become educated about local food production.
- It removes the middle-people from the value chain and returns more money to the farm.
- Farmers gain personal relationships with their customers.
- Money circulates and stays in the local economy.
- It facilitates improved environmental stewardship of the land.
- It creates a win/win relationship for the farm and the consumer.
- The risk of crop production is shared between the food producer and the consumer.

Today some operations have moved away from the traditional CSA risk-share model to more of a weekly food basket delivery program. This model is less of a consumer equity commitment and more of

a market commitment, where the customer buys their weekly groceries from a CSA instead of a grocery store. This shift is a diversion from the traditional philosophical CSA concepts to a commercial food delivery model where the consumer has a greater expectation of a particular food baskets value and less interest in risk sharing of crop production.

A CSA enterprise consists of four main areas of business activity, (1) a fairly complex crop production system, (2) a crop post harvest handling system, (3) marketing and customer service system, and (4) a business management system. The profitable CSA works to ensures that each of these areas of activity have the required resources and receive the necessary management attention to be successful.

The traits of profitable CSA operators include, but are not limited to:

- Consistently producing quality products that their customers want to buy.
- Spending time communicating with customers to ensure good customer service and to build loyalty.
- Focus on meeting/servicing the needs of a specific CSA demographic or market.
- Offering a variety of products throughout the entire CSA season.
- Utilizing season extension methods to increase the gross annual CSA returns.
- Focusing on building the CSA brand in the community and with share members.
- Maintaining a CSA waiting list of potential share members.
- Managing the input costs of production closely to create efficiencies.
- Pricing shares to ensure a positive net return and annual profit.

Owning and operating a successful CSA is hard work and requires strong agronomic, marketing and business management skills. Farming is by nature a risky business, but risk can be greatly reduced through good planning and learning from the experiences and knowledge of other CSA operators and farms. This report examines 3 different CSA farm businesses operating in Nova Scotia as well as identifies the factors that impact CSA profitability and success.

CSA Case Farms

The following three CSA businesses took part in this project case study. The objective was to examine finances and business management strategies of each CSA in an effort to identify best management practices and to share information that could help other local CSA businesses to become more successful. The businesses are quite different in size and structure, ranging from 4.5 acres of production to 300 acres of crop production and from 40 to 450 (+) share members. All of the case study CSA enterprises have been operating for less than 5 years.

Farm A

Farm A is a certified organic vegetable farm situated 4 km east of Tatamagouche, NS. The farm is located on the Northumberland Strait, a five-minute walk from the ocean. The farm currently utilizes 9 acres of land for organic crop production and rotation. Farm product is sold via a seasonal weekly CSA, direct from the farm, at a mid-week market in Tatamagouche, the Halifax Farmers' Market and to local restaurants.

Type: Certified Organic Farm - produces of over 40 varieties of vegetables.

History: Farmer A grew up in the Shuswap/North Okanagan Valley of British Columbia. In 2003, she completed the Linnaea Farm Ecological Gardening Programme, Cortes Island, BC. For the next five years she worked at Wild Flight Farm, a 20-acre, Certified Organic vegetable farm in Mara, BC.

In the fall of 2008, Farmer A moved to Tatamagouche, NS. She is part of a 100-acre farm set up as a Community Land Trust (the Tatamagouche Community Land Co-operative). Farmer A has a long-term renewable lease on the land she utilizes and in 2009 began Farm A offering certified organic produce to the region.

Farmer A currently uses approximately 9 acres of the total farm, at a rent of $10 per acre/year. She has two (25' x 100') hoop greenhouses on site, a seeding greenhouse for transplants and a two-year old packing shed with a walk in cold storage unit. Farmer A began with a start up loan (5 yr. to be paid off in 2013) and also has a packing shed loan (5 yr. to be paid off in 2015). The tractor used is a co-op tractor owned by 7 people. Farmer A is the major tractor user so she takes care of most of the tractor maintenance. The co-op also owns various pieces of farm equipment, which has greatly reduced her required capital investment into farm infrastructure.

Farm Sale Summary:

Income Item	2010	%	2011	%	2012	%
Halifax Farmers' Market	$27,183.45	61%	$16,706.42	55%	$33,548.26	72%
CSA	$16,275.50	37%	$11,380.00	37%	$11,345.50	24%
Market Catering	$176.3	0.50%	$875.15	3%	$128.4	0%
Other	$539.5	1%	$1392.9	5%	$1,931	4%
Interest Income	$76.49	0.50%	$15.03	0%	$1.70	0%
Total	$44,251.24	100%	$30,369.50	100%	$46,954.86	100%

Total farm sales are up 23% in 2012 over 2010. The CSA makes up approximately ¼ of the total farm annual sales and revenue. The farmers' market is the major sales venue for this business. The reduction in sales revenue in 2011 was due to crop production issues and initiatives to improve the land drainage.

The CSA:

	2010	2011	2012
CSA Members	35	40	≤ 30

The Farm A CSA share price for an 18-week membership is $26.94/per week for a total of $485 per full share or $285 for a half share. In 2012 approximately 1/3 of the total shares were full shares and 2/3 half shares. The share fee is paid in advance either in one lump sum or in two equal payments. Farmer A's son was born in 2012 and as a result she will not offer her CSA in 2013. Members pay a one time $10 deposit on their food crates.

Labour: Farmer A is a working manager and has a combination of full, part-time employees as well as apprentices depending on the season. Room, board and food are part of the remuneration package for employees. Part-time employees are paid $10/hour and fulltime employees $15/hour. At this point Farmer A does not draw a salary from the farm, as she has other sources of income.

Customer Retention: The CSA retains 60-70% of its share members from year to year.

Expenses: Labour is the biggest farm expense followed by market fees. Farmer A has 5-year loans and all current loans will be paid off by 2015, which greatly reduces the farm cash flow pressures. Her low overhead development strategies have greatly reduced the farm's cost of production.

Challenges: Being a recent new mother created a lot of new demands on Farmer A's time. This is one of the reasons she has invested into good help for the farm.

Farm Focus: On producing quality crops, maintaining a clean and weed free farm. Making customers happy. At this point increasing annual sales or CSA membership will bring additional profits, as incremental increases in production will have minimal additional associated overhead costs.

Best Practices: Farm A best practices include:

- Reduced her overhead (no mortgage)
- Short terms loans, diligent in paying them off
- Worked as an apprentice on farm in BC to gain CSA and crop skills
- Co-op share equipment reduces operating costs
- Weed free farm
- Famers' market sales are consistent and strong
- Developing a loyal well paid workforce
- Very good website and use of social media

Farm B

Farm B is a small, artisan producer of organic mixed vegetables and small fruit, located on 75 acres along the St. Croix River near Windsor. The farm provides fresh, organic produce weekly in season.

Infrastructure: The farm infrastructure includes a walk in cooler, cleaning area, storage building, helper village, horse barn, a hoop greenhouse, tractor, a truck as well as various farm equipment and implements.

Type: Certified Organic Farm- produces of variety of vegetables and small fruits.

History: In 2006 Farmer B bought the 75-acre property in Sweets Corner. The land had not been farmed in over 20 years and the existing house and buildings were rundown and in poor repair. Farmer B, a home designer, had no prior farming experience. She renovated the farmhouse in 2007 and then began developing other necessary farm infrastructure and lands. She under took a mentor program to assist her in establishing her organic farm certification. In 2008, Farm B started growing and selling ¼ acre of sweet potatoes. Today, the farm sells a wide variety of certified organic produce through a CSA, at Farmers' Markets, a farm U-Pick and to local restaurants. Farmer B has made constant investment into the farm's development and improvement since 2007. The farm debt consists of a farm mortgage and a loan for the helper village. With a desire to grow the business to a sustainable level but recognizing that it would be too big for one person, Farmers B began recruiting for a farm manager under a profit share arrangement in 2010. So far, she has been unable to find a successful candidate. As a result, the farm has

scaled back. In 2013, the CSA will not be offered. Farmer B is currently looking for an experienced farmer or farm manager with whom to partner.

Farm Sale Summary: The overall farm sales have steadily increased (2010 -2012). The farm's CSA program currently makes up 73% of total farm sales. The balance of crop sales is through the U-pick and to local restaurants.

Sales Venue	2010	%	2011	%	2012	%
CSA	$8,970.00	59%	$18,750	67%	$30,115.00	73%
Farmers' Market Sales	$6,128.82	40%	$6,131.19	22%	$8,035.82	19%
U-Pick/ Farm Gate Sales	207.90	1%	$385.00	1%	-	0%
Restaurant	$42.55	0%	$2,896.45	10%	$3,248.10	8%
Total	$15,349.27	100%	$28,162.64	100%	$41,398.92	100%

The farm has not yet made any significant annual return to Farmer B.

The CSA: The farm's CSA membership has grown from 25 in 2010 to 60 in 2012. There currently is a waiting list of potential new share members.

	2010	2011	2012
CSA Members	25	50	60

The share price for a 20-week membership is $25/per week for a total of $500 per share including delivery. The share fee is paid in advance in one lump sum by the end of April before the CSA begins. The CSA timeline runs from early June to the end of October. Only a few members pick up their CSA share baskets at the farm, most member baskets are delivered by truck to 4 different locations in Halifax once a week during the CSA season. The farm occasionally will supplement CSA baskets with organic produce purchased from other certified organic farms to ensure variety and value for the CSA members. Purchasing other farmers product becomes expensive an only returns minimal margins for the farm. The dollar value of the individual basket components is based on current farm market and retail prices of organic vegetables.

Labour: Farmer B is a working farm manager. She has had some hired staff, but mostly utilizes organic interns and WWOOF help (World Wide Opportunities on Organic Farms). The help is supplied room, board and a small stipend. It costs the farm approximately $3,500 per year to feed the help. In 2010 the farm invested $10,000 into establishing a helper village to house the help. The labour cost outlay for the farm has been lower due to the use of interns and WWOOFs. However, as a result the workers can be inexperienced, temporary and require more supervision.

Expenses: The gross income less cost of goods margin is relatively good due to the low labour cost. The interest expense and principal payments in relation to the total farm income is high and places pressure on the farm's cash flow and reserve funds.

Challenge: Farmer B has found one of the biggest challenges is handling the over-whelming demands and endless responsibilities of running a working farm - as a single person. The term "family farm" was so coined as an accurate description of the number of people it takes to keep everything going. Even with mutually supportive relationships with neighbours and other farmers, Farmer B is essentially one person running not only a CSA but responsible for haying, berry management, equipment repair and maintenance, animal care and general management of a farm household- accounting, communication, etc.

While supportive friends are an important piece of the puzzle, it is not an adequate substitute for the type of support offered by a life partner or live-in family member - in terms of contributing to household chores, helping out with farm emergencies and busy times, and contributing income to the general costs of running a household. This can be made up for in part with paid labour but there is no substitute for having the involvement of a committed partner/family member who cares that both the farm- and the farmer - are a success and can pitch in during exceptional times. This is pretty well essential in life - but even more critical on a working farm.

Best Practices: The farm/CSA best practices include:

- Low labour cost utilizing interns and WWOOF help
- Searching to hire a farm manager to reduce the demands on owner
- Maintain sales at farmers' markets & with restaurants
- Innovation on farm has reduced the capital investment required
- The helper village creates a separate area to house the help
- The farm has enough land for good crop rotation
- Used help of a mentor to get established
- Very good website and use of social media to promote the farm and CSA

Farm C

Farm C is a family farm that produces certified organic, transitioning to organic and conventional farm products on approximately 300 acres of owned and leased land. Farmers C both grew up on farms and their commitment to agriculture is now being passed to their three children. The farm annually raises vegetables, fruits, livestock, eggs, and operates a farm stay guesthouse. They also utilize in their CSA other like-minded farmer's products that meet their farms high standards. Farm C is strongly committed to continually improving the farm's agricultural production methods, to ensure the sustainability of the

natural resources (water, air, soil, ecosystem), long-term viability of the farm and increased biodiversity of the soil.

Infrastructure: The farm has access to a wide variety of production infrastructure both on farm and through alliances with other local and family farms.

Type: Certified Organic Farm - produces of wide variety of vegetables, fruits and other products.

History: In the spring of 2004, Farmer C(a) purchased a vegetable farm in Lower Canard. Farmer C(b) purchased 23 acres in Port Williams in November 2007. In 2011, the two combined their efforts under one farm name. The farm uses sustainable farming practices up to, and including, Certified Organic. The guarantee to shareholders is to clearly indicate which products are organic and which are not. The farm currently has 60 acres in certified organic production, 40 acres in transition to organic, and is increasing farm acreage each year. Farm C is now one of the largest certified organic farms in Nova Scotia.

Farm Sale Summary: The overall farm sales have steadily increased (2010-2012). The total CSA program (s) makes up 78% of total 2012 farm sales. This percentage fluctuates with crop production from year to year.

Sales Venue	2010	%*	2011	%*	2012	%*
CSA General	$254,987.36	100%	$306,312	67%	$410,674.21	57%
CSA Fruit			$63,706.85	14%	$139,640.35	19%
CSA Eggs					$15,787.25	2%
CSA Meat			$38,872.50	8%	$100,357.27	14%
CSA Other					$1,220.65	0%
CSA Delivery			$50,217.83	11%	$58,462.64	8%
Sub-total	$254,987.36	100%	$459,109.32	100%	$726142.37	100%
CSA % of Total Farm Sales	75%		40%		48%	

The CSA: The farm's CSA membership has grown dramatically from 50 in 2009 to 450 in 2012. The vegetable shares are all year-round subscriptions. Farmer C(b) says that people come to this CSA for a variety of reasons, including connecting with their local farm, food issues, concerns about GMOs, interest in farming and for social issues. The CSA is difficult to compare dollar wise from year to year due to the constant change-taking place on the farm. At the end of 2012 there were 450 solid (50 week) vegetable shares in the CSA.

	2009	2010	2011	2012
CSA Members	50 to 100	200	250	450

The farm offers a 50-week veggie share, a meat share, a fruits share, a student share, a staple share and egg share. The vegetable share price is $23/per week with a delivery charge of $3 in Metro HFX. A full year (50 week) vegetable share is $1,300 including delivery. The fruit share is $750 for 50 weeks, the meat share is $1,250 for 25 weeks and the staple share is $600 for 50 weeks plus delivery. The share fee is paid in advance in one lump sum, or 4 payments, or monthly payments by cheque or PayPal. There are multiple weekly locations where product is dropped off and for an extra charge can be delivered direct to a home. The company uses the delivery van as both a delivery vehicle and a travelling billboard. Delivery is arranged on line.

Labour: There is a fulltime staff of four plus part-time staff, seasonal and interns associated with the CSA. Throughout the season the staff shift from working for the CSA to the farm as needed. The salary and wage percentage of total farm sales is listed in the table below.

	2009	2010	2011	2012
Annual Wages/Salaries	38%	31%	38%	27%

Challenges: The biggest challenges for the farm are:

- Adjusting to the merger of the Canard farm and the Port Williams farm
- Managing labour and accessing skilled labour
- Managing the rapid growth of the farm
- Coordinating the CSA logistics, input costs and managing share value for customers
- Managing farm cash flow
- Management of internal farm information
- Administration costs of CSA
- Increasing customer retention from year to year

Best Practices: The farm/CSA best practices include:

- Developed alliances with other farms for supply and access to resources & infrastructure
- Strong farming skill background
- Excellent at PR and advertising
- By extending the season of the CSA allows hiring fulltime staff
- CSA members can pay with credit cards (options)
- City various delivery options
- Offering ancillary CSA programs (fruit, meat, etc.)
- Very good website and use of social media

Case Farm Expense Comparisons

Below is a comparison of the 2012 farm expenses for the three case study farms. The information is illustrated for comparison purposes and should be examined keeping in mind that it is a snap shot or picture of the financial state of each business at this particular point in time. Farm business expenses can vary considerably from year to year and with the size and scale of each farm operation. Salaries and wages are the single largest expense of a CSA. *(Note: Annual principal loan payments and depreciation have not been deducted from the net income return in these examples.)*

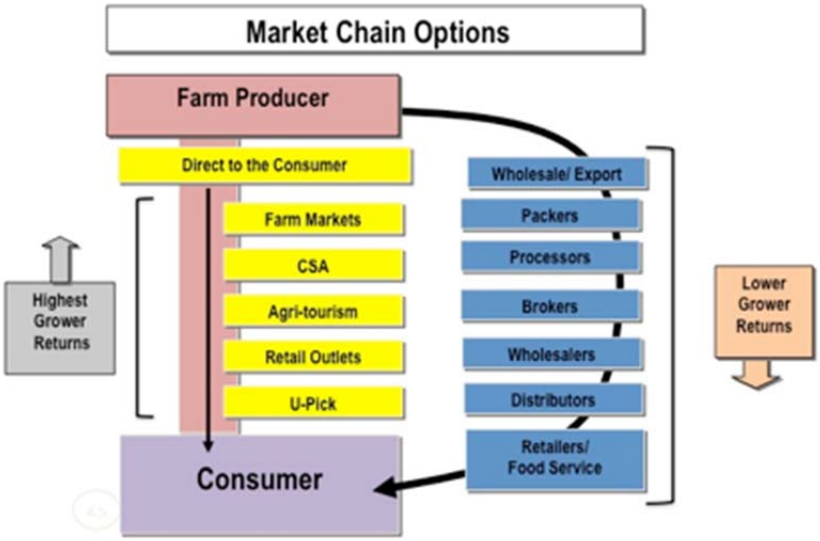
	Farm C		Farm B		Farm A	
	2012	**% Expenses**	**2012**	**% Expenses**	**2012**	**% Expenses**
INCOME						
Revenues	$726,142.37		$41,398.92		$46,954.86	
EXPENSES						
Purchases for Resale	$195,403.84	30.8%	$965.00	2.6%	$931.50	2.4%
Membership & Dues	$2,739.00	0.4%	$962.31	2.6%	$367.50	1.0%
Meals & Entertainment	$2,228.54	0.4%	$0.00	0.0%	$0.00	0.0%
Travel & Conferences	$6,444.67	1.0%	$372.70	1.0%	$0.00	0.0%
Insurance	$9,086.27	1.4%	$1,634.00	4.4%	$0.00	0.0%
Professional Fees	$12,856.00	2.0%	$360.00	1.0%	$0.00	0.0%
Advertising	$13,854.32	2.2%	$514.94	1.4%	$2,904.00	7.6%
License & Permits	$2,853.37	0.5%	$0.00	0.0%	$900.14	2.4%
Property Tax	$3,727.00	0.6%	$1,287.47	3.5%	$0.00	0.0%
Interest	$35,978.72	5.7%	$5,594.37	15.0%	$330.95	0.9%
Bank Charges	$1,877.00	0.3%	$50.00	0.1%	$0.00	0.0%
Office Supplies	$9,049.42	1.4%	$919.80	2.5%	$20.31	0.1%
Seeds and Plants	$22,058.00	3.5%	$2,913.70	7.8%	$1,440.48	3.8%
Equipment Costs	$7,512.00	1.2%	$0.00	0.0%	$1,331.26	3.5%
Building R & M	$4,218.00	0.7%	$6,677.14	17.9%	$0.00	0.0%
Animal Expense	$27,873.91	4.4%	$1,464.22	3.9%	$0.00	0.0%
Land Expense	$2,482.03	0.4%	$0.00	0.0%	$0.00	0.0%
Supplies	$2,000.00	0.3%	$2,116.03	5.7%	$1,842.35	4.8%
Miscellaneous	$0.00	0.0%	$0.00	0.0%	$849.32	2.2%
Compost & Bio compounds	$5,262.12	0.8%	$0.00	0.0%	$271.25	0.7%
Custom Work	$0.00	0.0%	$3,727.00	10.0%	$490.52	1.3%
Salaries & Wages	$218,714.83	34.5%	$2,466.88	6.6%	$21,433.96	56.1%
Utilities	$11,926.92	1.9%	$0.00	0.0%	$1,222.23	3.2%
Vehicle	$22,249.55	3.5%	$5,265.79	14.1%	$3,700.80	9.7%
Freight	$4,655.00	0.7%	$0.00	0.0%	$0.00	0.0%
PayPal	$7,834.00	1.2%	$0.00	0.0%	$0.00	0.0%
Packaging	$530.66	0.1%	$0.00	0.0%	$137.67	0.4%
Total Expense	$633,415.17		$37,291.35		$38,174.24	
Net Return	**$92,727.20**		**$4,107.57**		**$8,780.62**	
% Total		100.0%		100.0%		100.0%
Net Return as % of Revenue	12.8%		9.9%		18.7%	

CSA Profitability Factors

Key factors that influence the profitability of a CSA business include:

1) The ability to produce crops for less than the cost of production plus delivery to the market.
2) Targeting a market segment that accepts and will support the value proposition (product offer).
3) That the target market is large enough to sustain and support a CSA business.
4) Minimize the annual turnover and loss of customers.
5) Communication to and education of the consumer on the benefits of the value offering.
6) Setting prices based on the value being offered not what others are charging.

One of the biggest factors that contribute to business and farm failure is setting the product-selling price too low in attempts to compete on price. When prices are too low there is little or no profit returned back to the farm producer and the value does not get shared equitably throughout the value chain. The wholesale marketplace works on margins that are calculated from the retail-selling price backwards. The retailers know what the consumer will pay, or what they want the consumer to pay so that their business can be competitive. Based on their required margins, they determine what they will pay the farm suppliers. The wholesale commodity market is a very competitive marketplace and is based on low marginal returns and the supply of large volumes of product. The prices that consumers pay for food from a big box grocery store are the result of large agricultural production economies of scale and a very competitive business environment. Most small to medium sized farms cannot profitably compete in the wholesale marketplace. Therefore, they look for ways to bypass the middlemen (see diagram Market Chain Options) and sell their products direct to the end consumer. One of the options of selling direct to the consumer is using a CSA business model. The unique and beneficial characteristics of the CSA model are the concepts of sharing the crop risk between the farmer



and the share member and that payment is made in advance of the season reducing the need for operating credit, which increases the profit opportunity. The decisions left for the farmer are how much to charge per CSA share, how to minimize the cost of production without affecting product quality and assuring there is a profit at the end of the year.

When looking at **farm or CSA profitability**, it is important to note that **no two farms have the same overhead or cost of production**. Therefore, **each farm will have different possible levels of profitability**.

The profitability of a CSA business will be impacted by:

1) The farm's debt load and financial structure.
2) The available land, buildings, equipment, resources and labour cost.
3) The farm manager's production skills and crop knowledge.
4) The return expected by the owner for their time and investment.
5) Having a plan for the farm that includes an annual profit.

There are many factors and risks associated with growing crops, like the weather of which the farm has little control over. Other risks include not accessing enough markets or getting paid, both of these factors are addressed in a CSA business model. With everything else taken into consideration, a CSA is a business, and a business needs to create profits so that there is a return on the farm's investment, a decent return to the producer/CSA operator and monies are available to support the grow of the business into the future. No one can afford to simply hope that their business will find markets, or hope that people will buy their products, or hope that they will be successful; they need a plan and strategies focused on achieving profitability.

A Business Plan

Preparing a business plan is a good way to help ensure CSA profitability, as it maps out each aspect of the business, anticipate the influencing factors and creates action strategies to measure success. In the big picture a plan document is not as important as what is learned during the planning process. A plan forces you and the business to look forward so challenges can be anticipated and contingencies created. By planning to make a profit, you can then work backwards through your operational activities to determine the metrics that must be achieved at each level of CSA activity for success. Planning will help you to determine how many shares your will need to break even, what price you will need to charge members and how you will need to manage your inputs and costs on an annual basis. A business plan does not need to be overly complicated and there are many resources available from your regional Nova Scotia Department of Agriculture office that can help in preparing one.

Cost of Production

If it costs you more to produce and deliver your products and services than you can get from the marketplace; you have one of two choices if you want to stay in business; (1) reduce your input costs, or (2) find new markets that will pay more for your product or service. Each farm has its own unique cost of production and while it is good to compare and bench mark with other farm businesses, success comes from the decisions that are made at the farm level. Keeping good records allow one to accurately manage production costs. It is rarely one big thing that increases overall production costs, more often than not; it is a combination of a number of much smaller things that collectively over time have made an impact on your farm's input costs. Technology offers many tools to help manage the cost of production, which could be as simple as utilizing a spreadsheet or by using advanced customized software.

Target Markets

Your CSA program is not for every consumer and you cannot supply all CSA markets. By focusing on who specifically your target market is to be, it allows you to create the best value proposition for that target market. Many people make the mistake of thinking too broad or general when it comes to the marketing of food. Of course everyone has to eat, but not everyone will want what you have to offer or be willing to pay what you are asking. The consumer has a wide variety of options to access and purchase food products within Atlantic Canada. Even in a CSA, success and profitability come when you align what you have to offer with want a particular segment of the population wants to buy. The consumer needs to see the benefits in what you are offering to them, your value proposition, what differentiates you from others.

Within the CSA market environment there are many different demographic profiles and target markets to consider. There are low-income, intermediate and high-income families, foodies, idealists and other food groups. Family unit size varies from an individual to families with multiple members. There are young families, middle-aged families and seniors each looking for a different need or requirement from the food marketplace. How many customers do you need to be profitable? What is your target demographic? Within an hour of the Halifax Regional Municipality is a population of over 500,000 people; how much marketing would you need to do to find 30, 50, 100 or 400 customers that want to purchase the unique service that your CSA has to offer? It becomes easier the more you understand the target demographic that you want to market your products too. Choosing the right target market for your CSA will help make it more profitable. If you are having trouble finding enough share members, maybe you need to rework your offering (size of basket, variety of products), or you need to refocus your efforts into another market segment that is more profitable for you?

Delivery

Distribution logistics and the cost of delivery can be a financial challenge and high cost for a CSA. Part of the CSA model is delivering food to a convenient location for a group of share members. (E.g.: Churches, schools, businesses, etc.) The best-case scenario for the farmer is if the product is picked up at the farm gate. However, this may not be the best case for the environmental carbon footprint or convenient for the share member. If all CSA shares were picked up at the farm it would save the farm the delivery fees and the time and resource expenditure required to make the deliveries. CSA delivery fees are sometimes included in the share price or are often listed extra. Separating the delivery fees creates transparency for the customer separating share value and delivery costs. Most customers are familiar with the concept of paying delivery fees to receive goods. Delivery is a necessary CSA business function and a cost that can quickly add up if not monitored closely. Fuel prices fluctuate from year to year, as do the cost of operating and staffing a delivery vehicle. If your delivery fees are not covering the cost of delivery, then those costs are coming directly from your bottom line profits.

Human Resources

Most businesses rely on labour or staff to undertake daily business/farm operations and activities. Some CSAs require members to contribute labour as part of their share obligations. This sounds like a good idea, but it can often be a headache having unskilled people on the farm, it can increase the supervisory need and interfere with other farm operations. Some CSAs offer organic internships and utilize WWOOF help (World Wide Opportunities on Organic Farms) to access seasonal labour. Labour management is an area that has a great deal of potential variability associated both throughout the year and from season to season. Skilled workers will cost more, but in most cases are worth the expense as they make production activities run more efficiently reducing overall costs. CSA farmers must have experience and skill in growing a large variety and quantity of different vegetables to meet the needs of the share membership.

Technology

Technology can give a CSA business a competitive advantage. Spreadsheets allow you to track your production costs quickly and help in planning and managing crop rotations and planting. Mobile devices allow you to gather and carry information easily. The development of the cell phone has been one of the greatest innovations for increasing on farm efficiency. Other technologies such as plastic mulch reduce weeding costs, and irrigation systems increase and maximize crop yields. Greenhouses and high tunnels extend the growing season increasing the total annual return potential as well as allowing for production of a greater product mix and variety offering to the consumer increasing the potential value offering from the weekly food basket. This could give an added competitive benefit to the CSA.

Communication & Education

It is important to minimize the annual turnover in CSA share membership. There is a high cost associated with turnover and finding new share members. There is an old saying in retail: if it costs you a dollar to keep a customer, it will cost you twenty dollars to find a new one. Admittedly, there are some customers that you may be better off parting company with, but in general, it is easier to work with the customers with whom you already have a relationship. If you have made them happy in the past they will likely remain loyal to your CSA in the future.

The main reasons reported that people become dissatisfied with a CSA are as follows:

1. Too much produce in the share basket.
2. Too much food preparation time is required for CSA foods.
3. Lack of choice and variety delivered throughout the year.

These are all issues that can be overcome through developing a better understanding of your customers. The best way to keep customers is to engage with them creating channels communication for both information and education. The easiest and most cost effective way to communicate with a large number of customers today is to use e-mail. This can be made super easy and reduce your e-mails getting identified as spam by using web based list management tools such as Constant Contact (www.constantcontact.com), Aweber (www.aweber.com) or MailChimp (http://www.mailchimp.com). These services make it simple to communicate with your group, reducing the time required to do it and will improve your effectiveness and efficiency. If your customers are having problems or concerns you want to know about them so you can address those concerns and keep them as a share member.

Overhead and Debt Load

As mentioned earlier, each farm business will have its own unique overhead/debt structure, which impacts the cost of production and the possible profit. Overheads vary because people pay different amounts to purchase farms, farms are of different size and the level of equity invested will also vary. Some farms have mortgages and some don't, some have equipment loans while other make do with what they have or rent equipment as needed. Production methods will differ as do equipment needs and each farm will have access to different resources. On some farms the CSA operation is the main revenue generating enterprise, while on others the CSA may be a minor enterprise revenue contributor. High overhead cost and debt load will increase a farm's cost of production and can decrease the ability of the farm to be profitable. Bootstrapping and innovative farmers will search for ways to minimize the farm's overhead costs in an effort to make the farm more profitable and competitive in the marketplace. Leasing/renting land and purchasing/renting used equipment, are possible methods of reducing the annual overhead and debt cost of the farm operations. CSAs carrying higher levels of overhead and debt

may have to find ways to offer the consumer increased value so they can get more dollars back from the marketplace to cover their added input costs.

Credit Card Payment

The ability to accept credit card payments helps people make upfront payments and will increase your sales and cash flow. Accepting credit cards historically has been expensive or difficult for small businesses that don't have retail locations. However, with the introduction of new technologies like the "Square" card reader everyone with a smart phone can accept credit cards at affordable rates. The card reader plugs into your smart phone or tablet, the card is swiped or number entered, the customer OKs the purchase on screen, receipts are e-mailed and the money is in your bank account the next day. If you're worried about the fees, build them into your prices, as your customers will appreciate being able to pay by credit card. The Square – www.square.ca (Free card reader is available from this site for signing up.)

Additional CSA Offerings

Your best customer is your existing customer. It costs many times more to get a new customer than to keep an existing customer. It only makes sense to offer these customers additional CSA products beyond produce. Some of the popular CSA additions are eggs, meat, flowers, honey, dairy, crafts, soap, cut flowers, baked and canned goods, preserves, poultry and eggs, meat and dairy products, honey, beeswax, and fruit. Increasing the total sale of the CSA share with add on sales spreads the overhead and delivery costs over more units and increases the profit opportunity of individual orders. Over time, try offering share members other additional products to create new profit centres.

Extending the Season

Why extend the season? By extending the season you can increase the number of weeks the CSA can offer of products. Most often those extra weeks are "gravy" if your first 20 weeks have covered the season's overhead costs. Once the annual overhead has been covered each additional CSA week has a greater profit margin. The CSA season is most often extended using greenhouses, row covers, high tunnels, plastic mulch, etc.

Extended Season Example:

- Standard CSA is $25 share x 20 week CSA = $500 / CSA members
- $500 x 50 CSA members = $25,000 total return
- (4 extra weeks x 50 CSA members) x $25/week = $5,000
- Extending the season by 2 weeks on each end for a total of 4 weeks in total, adds $ 5,000 in annual income or 20% of the seasons total sales.

Pricing

Share Pricing

(Note: A full share is considered an amount to feed a family of 4 for a week, a half share is for 2 people or slightly more than half of a full share.)

One of the most important CSA profit factors is determined by setting the share price. The downside of receiving monies up front is that the returns are pretty much fixed for the year and if costs go up the price cannot in most cases be raised. Most people find price setting a very difficult and challenging task to do. They worry that if they set the price too high, they won't be competitive. Many people tend to look at how other CSA operators have priced their shares and then try to match it or sell below that price to get customers. The problem with this strategy is that if your competitors have a different cost structure than you do, you could end up selling below your cost of production. It also does not support a unique value offering and the fact that not all customers are price as price conscious as you may think. After all, the main reasons most people join a CSA are for reasons other than price. Lowering your price means that you will have to sell a greater volume to be profitable. The price that you charge for your CSA shares has to cover your overhead costs, production costs, marketing costs, include a profit and have a contingency for the unexpected challenges of farming.

Setting low share prices or trying to compete with a low price turns your CSA into a commodity where the only customer loyalty is to the low price. These customers typically move to whoever offers the lowest price. Your price must cover your costs, but your final share price needs to also be based on your value offering, your **value proposition**. This is what makes your CSA unique and distinct from everyone else in the marketplace. Your strategy should not be to lower your price to get customers, rather to position your product for the customers that are looking and willing to pay for what you have to offer.

There are many different ways to address price. A waiting list indicates that people are willing to pay more per share. When members complain about too much produce in their basket or ask to split shares with others, it means that the share size offered is too big. Maybe you could target customers that want smaller baskets or ½ shares. The consumer that wants a smaller share should be willing to pay more than half the cost of a full share, because you still have the same overhead, administration and delivery cost for a half sized basket as for a full sized basket share. By making the share size smaller you may actually be increasing the value offering to a customer segment, as there may not be as much waste for them, etc. Another strategy might be to offer large shares for large families. If your farm can produce enough products, then you have options. The price of food in the grocery store is currently based on a large-

scale commercial production model based on low margins and high production volumes. Most CSA farms are based on a different low volume high margin model. Comparing the two is like comparing oranges and apples. If a CSA customer is only concerned about price, then maybe you can't afford to have them as your customer. A strong CSA value proposition will allow you to support higher share prices.

Survey of CSA Share Price

In the workshop associated with this project a survey of participants yielded the following share pricing information. Eleven people contributed their weekly CSA share prices. The average group price for a full CSA share was $29.61per week including delivery (18-20 week CSA). The highest share price was $45 and the lowest was $25 per share. The average half share price was $16.68 per week. The average weekly ½ share price was only 56% of the average full share price, which is most likely low when all input costs are taken into consideration. The same marketing, administration costs and delivery costs are associated with both a full and half share.

Household Food Spending

Source: Statistics Canada Survey of Household Spending
http://www.statcan.gc.ca/daily-quotidien/120425/dq120425a-eng.htm

Canadian households reported spending an average of $7,443 on food in 2010. This total consisted of $5,377 (72%) spent on food from stores and the remaining $2,066 (28%) was spent eating out. Households in Nova Scotia reported spending $6,888 during the period. Based on the national rate Nova Scotian households spent $4,959 (72%) on food from stores and $1,929 (28%) on restaurant meals in 2010. The weekly amount spent on food from stores was $95.36 per week. Spending on fruits and vegetables in 2010 was 23% to the total, which would be $1,140 annually or $22 per week (52 weeks) for Nova Scotia.

Methods of Calculating Price

The CSA share price is going to vary from farm to farm and with the length of the share season. There are a number of methods used by CSA operators to set share price.

Some of these methods include:

- Market Price - the CSA operator approximates the market value. They charge a particular rate and then fill the basket with value equal to what it would cost to buy at a farm market or grocery store.
- Estimate Value - Estimate what a family would spend on vegetables during share timeframe, decide how much you want to make, divide gross income by share price to come up with share dollar value.

CSA SHARE COST CALCULATOR (Example 1)

NEWCO CSA (1 Acre Production)

INPUT COSTS	
Seeds & Plants	$750.00
Organic Fertilizers	$300.00
Compost & Mulch	$700.00
Pest Controls	$200.00
Bags, Baskets	$75.00
Farm Fuel	$200.00
Greenhouse Heat	$150.00
Delivery Fuel	$1,800.00
Website Maintenance	$250.00
Advertising	$200.00
Labour	$10,000.00
TOTAL	$14,625.00

Cost Per Share	$487.50
Per Week	$24.38

OVERHEAD COSTS	
Land Rental	$1,200.00
Tractor Rental	$300.00
Greenhouse	$200.00
Utilities	$200.00
Phone/Internet	$600.00
Irrigation	$200.00
Delivery Vehicle Rental	$2,000.00
Administration	$600.00
Return to Owner	$-
TOTAL	$5,300.00

Cost Per Share	$176.67
Per Week	$8.83

CSA	
# Weeks	20
# Shares	30

Weeks	Rate/wk	Total
20	$90.00	$1,800.00

Hours	Rate	Total
800	$12.50	$10,000.00

TOTAL COST	SHARE	Retail $
$487.50	$24.38	Includes
$176.67	$8.83	20% Profit
$664.17	$33.21	$39.85
(per share)	(per week)	(per week)

Rate	Acres	Total
$300.00	4	$1,200.00

Rate	Weeks	Total
$100.00	20	$2,000.00

Hours	Rate	Total
40	$15.00	$600.00

Total Return	Total Return
$1,195.50	$23,910.00
(Week)	(Acre)

- Land Potential - Another method is to decide how many shares can be produced from the land. Then determine the cost to raise that amount of products. Divide farm budget by # of shares.
- Cost Plus - Calculating the cost of production + profit margin desired requires detailed accounting.

The other factors that will need to be taken into account when determining the price of a CSA share are, income levels of the community, the ability of the community to grow it's own food, share prices offered by competitive CSA operators and finally what the market will bear. If you have a strong value offering the share price should be the last reason people consider to join your CSA.

CSA Cost Calculator

There are many different ways to calculate the cost of a CSA share and each producer will develop a preferred method of calculation. The calculation result must be that the share price must exceed the cost of producing the crops, the associated overhead costs, marketing; deliveries costs and return a profit back to the operator.

In the share cost calculation tables "examples one & two" the input costs plus overhead costs are calculated and converted into a share cost $ value. Then a 20% profit is added to determine a final selling price or share price and a total per acre return. The assumptions associated with the tables are listed below:

- The costs are estimated based on a one-acre production site for typical CSA crops.
- This is an example for illustration purposes only.

CSA SHARE COST CALCULATOR (Example 2)

NEWCO CSA (1 Acre Production)	
INPUT COSTS	
Seeds & Plants	*$750.00*
Organic Fertilizers	*$300.00*
Compost & Mulch	*$700.00*
Pest Controls	*$200.00*
Bags, Baskets	*$75.00*
Farm Fuel	*$200.00*
Greenhouse Heat	*$150.00*
Delivery Fuel	*$1,800.00*
Website Maintenance	*$250.00*
Advertising	*$200.00*
Labour	*$10,000.00*
TOTAL	*$14,625.00*
Cost Per Share	*$292.50*
Per Week	*$14.63*

CSA	
# Weeks	*20*
# Shares	*50*

Weeks	*Rate/wk*	*Total*
20	*$90.00*	*$1,800.00*

Hours	*Rate*	*Total*
800	*$12.50*	*$10,000.00*

TOTAL COST	*SHARE*	*Retail $*
$292.50	*$14.63*	*Includes*
$106.00	*$5.30*	*20% Profit*
$398.50	*$19.93*	*$23.91*
(per share)	*(per week)*	*(per week)*

OVERHEAD COSTS	
Land Rental	*$1,200.00*
Tractor Rental	*$300.00*
Greenhouse	*$200.00*
Utilities	*$200.00*
Phone/Internet	*$600.00*
Irrigation	*$200.00*
Delivery Vehicle Rental	*$2,000.00*
Administration	*$600.00*
Return to Owner	*$-*
TOTAL	*$5,300.00*
Cost Per Share	*$106.00*
Per Week	*$5.30*

Rate	*Acres*	*Total*
$300.00	*4*	*$1,200.00*

Rate	*Weeks*	*Total*
$100.00	*20*	*$2,000.00*

Hours	*Rate*	*Total*
40	*$15.00*	*$600.00*

Total Return	*Total Return*
$1,195.50	*$23,910.00*
(Week)	*(Acre)*

- Based on a 20 week CSA.
- Labour is the assumed to be the total labour required to grow crops on one acre of land and may or may not include owner operator labour. An additional value could be included for owner labour if required in the owner return line of the overhead costs. Labour is projected at 800 hours based on $12.50 per hour. Delivery vehicle fuel is based on $90 per week. The delivery vehicle was rented weekly at $100 per week.
- The CSA land was rented or leased land and assumes 3 additional acres to allow for buildings and rotation of crops.
- Administration accounting costs were based on 40 hours and $15 per hour.

In example one, thirty shares were used in the calculation. The result of example one based on the assumptions was that it would require costs of $33.21 per share to cover all assumed production and overhead costs and with a 20% profit return added would result in a share price of $39.85 for a weekly return $1,195 and a total return of $23,910 for a 20 week CSA.

In example two the only change made was from 30 to 50 shares. The result of example two based on the assumptions was that it would require costs of $19.93 per share to cover all assumed production and overhead costs and with a 20% return added would result in a share price of $23.91 for weekly return $1,195.50 and a total return of $23,910 for a 20 week CSA. The number of shares possible from an acre of production has a big impact on the share price that will need to be charged.

Share Payment

One of the original and core fundamentals of the CSA model was full payment prior to planting. Full payment makes CSA bookkeeping easier and assures the farm income. Payment plans increase accessibility to more customers, but people can cancel out of the program early and there are increased administration costs for payment plans. Not getting payment up front could be an area that is reducing your CSA profitability and increasing your stress. The benefit of up front payment is that you don't have chase the money, the money is interest free and prepayment allows you to focus on producing quality crops and customer service. The farther away you move away from the full up front payment strategy, the closer you move to becoming a bank, increasing the risk of reduced income and increase your administration costs.

Conclusions

A CSA business model is basically a marketing strategy to connect farm products with target consumer groups. It creates a number of key benefits for the farm that can increase profitability, such as interest free money in advance of planting crops and assured markets for what is grown. Profitability is primarily determined when the price of the CSA share is established. Once a share price has been set, the farm focus is on minimizing the cost of production, marketing and business overhead, to ensure that there is a profit at the end of the year.

If a CSA cannot achieve profitability, it eventually will go out of business. There are many areas that can potentially increase the cost of production and reduce profitability in a CSA business operation. These have been examined in the **CSA Profitability Factor** section of this report. Overcapitalization, high debt levels and human resource costs are three of the areas that can have a big impact on CSA profitability and they need to be managed closely.

A lack of business profitability is most often not just one thing, rather the result of a number of small business weaknesses going unnoticed, that over time collectively create a much larger negative impact on the farm's cost of production. All CSA businesses would benefit from reducing the costs of their inputs, closer scrutiny of labour expenses, minimization of debt as well as on going assessment and monitoring of their profitability factors. Poor attention to a farm's costs of production can quickly negate the CSA benefit, and gift, of payment up front.

Appendix

Useful Resources

ACORN- Community Supported Agriculture Guide for Atlantic Canada
http://www.acornorganic.org/pdf/CSAmanual.pdf

BC Ministry of Agriculture & Lands – Enterprise Budgets Planning for Profit
http://www.agf.gov.bc.ca/busmgmt/budgets_pfp.htm

Rodale Institute - Starting a CSA Resource Listing
http://newfarm.rodaleinstitute.org/features/0403/csa_resource_list.shtml

NC State University Cooperative Extension - CSA Resource Guide
http://growingsmallfarms.ces.ncsu.edu/growingsmallfarms-csaguide/

Iowa State University Extension – Determining Prices for CSA Share Boxes
http://www.extension.iastate.edu/agdm/wholefarm/pdf/c5-19.pdf

Ontario CSA Directory
http://csafarms.ca/what%20are%20csa%20farms.htm
http://csafarms.ca/farmers/docs/So%20you%20want%20to%20become%20a%20CSA%20farmer.pdf

Community Shared Agriculture Primer - *The Ins and Outs of Running a CSA in Ontario*
http://www.efao.ca/site/ywd_efao/assets/pdf/on_csa_manual_nov_09-1.pdf

University of Tennessee - A Farmers Guide to Marketing through CSA
https://utextension.tennessee.edu/publications/Documents/PB1797.pdf

North Carolina State University - North Carolina Organic Vegetable Cost of Production Study
http://www.ncsu.edu/project/arepublication/AREno31.pdf

BC Ministry of Agriculture Crop Production Guides
http://www.agf.gov.bc.ca/cropprot/prodguide.htm