



CYON

Star Root Farm

Final Report

12.4.14

Report Overview:

After reviewing existing farm operations, budgeting and resource management practices, projections and overall goals for strategic growth CYON feels that the current farm yield and bulk CSA model is not sustainable by itself long term without the development of further revenue streams to subsidize the farm's overhead cost. CYON believes a much more diversified farm model will provide greater stability and a more significant increase in farm income than simply expanding the existing level of production. CYON also finds that changes in certain areas of farm operation could provide greater efficiency and help reduce cost, while also providing more **time** for farm management to put towards expanding the farm enterprise, creating strategic partnerships and expanding marketing/farm promotion.

By diversifying and expanding the farm's revenue streams, increasing the price of the Bulk CSA shares and reducing labor and overhead cost, the farm will see an increase in farm income. Certain changes can be made without a large need for capital resources, helping to provide additional funding for farm infrastructure and expansion. Other changes will require grant funding, investment or significant financing to fully implement. A phased farm growth strategy that allows the farm owner to increase her standard of living, grow the farm business and expand her market area is the best approach.

Agreement and Scope of Work:

Below is what was agreed to per the contract as included within the Scope of Work for this engagement. CYON will address each of these areas with an overview of work completed under each section and the related findings and recommendations.

Create a strategic plan with measurable and quantifiable outcomes:

- *Profit & Loss for the Farm*
- *Efficiency Analysis of Product Mix*
- *Optimum Product Mix*
- *Buyer Survey (determine demand for specific products or niche products)*
- *Marketing Plan*
- *Growth Strategy for Vegetable Production*

- **Review Profit & Loss: Gauging Financial, Operational, Strategic**

Sustainability

- **Assessment of current farm practices**

FINDINGS: CYON reviewed current practices with farm management and determined that while she had a good handle on general expenses, proactive budgeting, bookkeeping and risk management practices were lacking. Star Root Farm has begun receiving help and support through Healthy Acadia under this and other programs and has started keeping better records as a result of this work, however, summary data for each product line is lacking. Risk management for crop loss or CSA fulfillment is lacking. Budgeting is handled by gut instinct, increasing production by small increments based on overall feedback from CSA customers.

RECOMMENDATIONS:

- **Create a monthly P&L snapshot** – Creating a yearly budget and reviewing the farm books monthly will help the farm make more informed decisions, create better pricing models and help manage variations in crop yield, cash flow and overhead cost. CYON recommends that the farm work to set up Quickbooks or use other bookkeeping software that can quickly and easily generate expense reports and Profit & Loss statements that can be reviewed monthly or as needed with a high level of accuracy.
- **CYON can provide a profit and loss template** to help Star Root track income and expenditures, as well as creating a one page snapshot of the financial situation for the year. Using the simple template, management should create a P&L for each month, helping them track profit and expenses seasonally, which will aid in decision making and proactive budgeting based on actual data on when cash inflows and outflows occur, rather than on gut instinct and memory.
- **Create a yearly budget in January** – Based on the seasonality of the business, the slowest time of year appears to be in January and February. By March, most ordering decisions for next year's production must already be made. By creating a yearly budget for the farm in January, year-end total data should be readily available. In addition,

collecting data needed for budgeting can also streamline the tax preparation process, adding to administrative efficiency.

- **Accurately document cost of seed, soil amendments and tilling** - CYON recommends creating better documentation around seed cost, soil amendments and tilling, for each line of production. Hanging a clipboard in the greenhouse or packing shed will enable tracking of actual seed and fertilizer/seed starter usage, which may result in both more efficient usage, along with more accurate ordering information.
 - **Accurately document all production losses** – Data around yield and production losses, through spoilage, animal damage or other circumstances that might reduce expected profits (such as lower quality product or products kept for home use) need to be documented accurately so that better risk management planning can occur and so that Healthy Acadia can provide the best level of service to aid in gleaning such product. Current numbers are based on estimates and memory, with little data on total value of the losses. This can be documented within a simple Excel spreadsheet that shows total pounds of culls, spoilage or product kept for home use. Star Root should start each new year with losses recorded throughout the previous year, along with total value (retail sale value, or replacement value – whichever you use consistently for your accounting purposes). Alternatively, loss value can be tracked on a clipboard that hangs in the greenhouse or pack house where that same data is documented each time a loss is noted. That data needs to then be incorporated into the yearly P&L.
- **Review of budget and financial resources**

FINDINGS: CYON conducted several interviews with farm management to identify hidden or overlooked expenses, understand overall farm goals, analyze operational efficiency and brainstorm better ways of tracking data, collecting information and forming budget projections. Financial resources were not discussed, but overall recommendations involve minimal up front capital investment to capture lost revenue through “low hanging fruit” to help bolster farm stability and increase farm infrastructure and diversity. Larger farm projects, such as the farm incubator model, may require some significant up front investment and could be budgeted for (or financed) separate from existing farm operations.

RECOMMENDATIONS: Farm management was given a list of potential grant funding sources, along with information on small business loans tailored specifically to small farms, energy efficiency grants and loans, along with information on value-added processing grants. All of these resources were meant to help increase potential capital resources to allow farm management to create capital improvements to their operation (build out a processing/storage room, purchase new equipment or upgrade existing equipment, improve inefficient systems such as the current delivery model).

CYON does **not** recommend taking out any loans until accurate P&L information can be obtained to assess self-funded growth potential and an accurate budget for capital projects is developed. CYON does recommend applying for any and all grants that may be available that can help improve farm operations, energy efficiency or allow for value-added processing.

- **Efficiency Analysis of Product Mix**

FINDINGS: CYON used existing Profit and Loss data from 2013 to begin analyzing farm efficiency and sustainability. CYON also did a crop efficiency analysis for two representative crops to help farm management assess the viability of the bulk CSA model and the efficiency of certain crops. This was meant to be an educational exercise, helping management understand the importance of accurate record keeping, providing a template that can be used to help assess ideal crop mix, illuminating areas of inefficiency and helping to inform the pricing model for the bulk CSA shares. The analysis was quite helpful, showing that the bulk CSA model is currently underpriced and unsustainable based on the cost of production. In addition, a number of areas of inefficiency were identified that could be easily adjusted to reduce cost or increase production/yield. This analysis calculated both inputs (marginal cost) and outputs (marginal revenue) to better understand efficiency and capacity for each product line. We felt that this efficiency and capacity analysis would better enable farm management to make strategic decisions about growth areas. Additional work with an accountant (or dedicated use of bookkeeping software) could easily show standard profit and loss figures.

RECOMMENDATIONS:

- **Better record keeping on profit** - as derived from individual product lines or specific farm activities could aid in strategic decision making going forward. Many of the profit numbers (such as pounds of each type of vegetable included in CSA packages) were gut estimates or unavailable.
 - **Monthly P&L Snapshots** – see above!
 - **Reduction in Management Labor for Administrative Tasks** – Star Root should hire an accountant or use a bookkeeping software package. If the farm could easily generate accurate monthly profit and loss data, better decision-making would occur and overall administrative burden at year-end, tax time and ordering time would be reduced. The farm should have a monthly P&L, using data entered on a weekly basis to help inform strategic growth decisions or for use before making large capital expenditures.
 - **Crop Analysis** – Crops currently analyzed were carrots and beets, both relatively labor intensive crops. Both crops were shown to be losing money, although data was largely anecdotal and unsupported by actual receipts or documented cost data. Using the best data the farm could produce, we determined that both crops used significant labor in the cultivating, weeding, harvesting/grading/washing/boxing/storing of the crops (over 30 hours). At \$15/hour for the cost of the farm manager’s time, this was found to be very expensive labor. Use of farm interns/apprentices (at a rate of \$10/hour) or volunteers would significantly reduce the labor cost for this aspect of production and would free up the farm manager’s time to do more strategic work such as marketing/branding, grant-writing, or renovating the pack house to be more efficient.
 - **Streamline Efficiency** – Renovating the pack house and creating greater efficiency in the transport of crop from the field to the pack house would greatly increase efficiency and reduce farm labor. CYON recommends doing a workflow analysis and new pack house design using the Design, Validate, Test, Revise and Publish/Finalize method.
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- **Optimum Product Mix**

FINDINGS: CYON reviewed only two of the many crops produced at Star Root Farm. While this was extremely helpful in informing the bulk CSA pricing model and analyzing current efficiency issues, it was not comprehensive enough to allow us to create a recommended optimum product mix. Based on the needs of the farm, it was determined during our work that analysis of the entire farm production mix could take place at a later time to get more accurate data and to create a truly comprehensive production plan for the farm. What our analysis of these two crops did allow us to do was get a high level sense of the sustainability of the bulk CSA model. Currently, both carrots and beets are losing money. While both crops are relatively labor intensive to harvest, they are also both some of the lowest price crops traditionally. The bulk CSA model enables the farm to streamline production and have a flexible, pre-paid farm subscription at a standard set price, allowing them to incorporate different products and to gain entry into an institutional market. The idea is that while some products will be included at a loss, others will be included at a significant profit. However, given the low market price for carrots and beets, it is likely that other products included in the CSA share such as tomatoes or peas, are also being sold at a loss.

RECOMMENDATIONS:

- **Increase CSA Share Price** - based on the cost of production for beets and carrots, it can be extrapolated that most crops at Star Root Farm are being sold below the cost of production (i.e., losing money). In order to increase the farm's stability and create a platform for growing farm infrastructure, the price of the bulk CSA model will need to accurately reflect the high quality brand strength of "local, organic, Maine"). For this reason, CYON is recommending that Bulk CSA pricing go up to \$3.00/lb - \$3.25/lb. With the farm producing roughly 4,000 pounds of salable vegetables per year, at \$3/lb this would result in a gross profit of \$12,000. Together with the income from the sublease at \$2,025/year and the potential to reduce expenses, we could see an increase in farm profit up to \$3,000. This is low hanging fruit and does represent any additional cost to the farm.
- **Develop New Premium CSA Offering** – for those institutional clients that may want to offer more premium

selections and for certain restaurants or other high-end customers, a premium CSA share offering might be very attractive. This CSA share might include certain high price/high labor products such as new potatoes, baby carrots, micro-greens, herbs, cheese, meat, value-added products, etc. that typically capture a higher price at market. Price this premium CSA share at \$3.50 or \$4/lb and increase production slightly to compensate for the increased sales. Offer only limited shares – maybe something like 10 shares initially, increasing the exclusive nature of the offering. At \$3.50/pound, and a total production yield of 400 pounds, the farm would see an increase in gross profit of \$1,400 without any significant increase in expense. At \$4/pound, the farm would see an increase in gross profit of \$1,600.

- **Weed Out Inefficient Crops or Those Least Desired by Customers** – work to reduce cost and increase efficiency by weeding out those crops that are least desired by customers and those that are the loss leaders. Consider providing those products in your CSA shares through a barter arrangement with other farms growing those crops with greater efficiency. For example, if potatoes are so labor intensive that they are not worth growing at such a small scale, you can still get potatoes to include in your bulk CSA share by trading your beets/carrots/squash for another farm’s potatoes. In this way, you eliminate inefficiency, create a strategic network that helps you with risk management, and increase the quality, efficiency and brand of certain of your products.

- **Buyer Survey**

Findings: Working to gather better information about CSA customers to better understand their preferences, competitors’ price points and quality assessments of Star Root Farm’s products (survey was created and reviewed by CYON and Healthy Acadia during our work together – results of that survey have been discussed and incorporated into the recommendations)

- **CSA customers from the Ellsworth, MDI area -**
Within this market area, organic market vegetables are available from other farms.

General data for the MDI area as the primary target area for CSA growth is as follows:

- Population of MDI (2000): 10,424
- Over 2M tourists visit Acadia National Park each year
- Average age: 50 years
- Average Income (as of 2012): \$54, 361
- # of farms on MDI (as of 2010): 5
- # of competing organic CSAs within the target market area: 3

General data for the Ellsworth area as the primary target area for wholesale and retail growth is as follows:

- Population of Ellsworth (2012): 7,824
- Average age: 41 years
- Average Income (2012): \$46,302

RECOMMENDATIONS:

- **Increase market data collection** - by gathering information about CSA customers to better understand their preferences, residency status (summer vs. year round), competitors' price points and quality assessments of Star Root products (survey was created and reviewed by Healthy Acadia and CYON during our work together – results of that survey have been discussed)
- **Increase market share in existing markets** - by proactively signing up repeat customers, giving incentives for existing customers to refer new customers, creating better visibility in the existing market area (flyers on local bulletin boards, online postings on Craigslist, CSA advertised on the Star Root Farm signage)

- **Marketing Plan**

FINDINGS: Target market areas for expansion of product sales include small wholesale commercial accounts within Ellsworth and on MDI, to include small markets and restaurants and potentially educational institutions, as well as hospitals and Jackson Laboratory

RECOMMENDATIONS:

- **Redo the farm market on Rt. 1 and create a professional looking sign!**
 - **Develop a Logo, Brand and Website!** – CYON can help you create a website through a contract extension if requested
 - **Increase education around use of product lines** – collect recipes using your products and offer them free of charge with every purchase or create a contest with CSA shareholders to get the best recipe for your special niche products and offer a prize for the best submission. I was recently given a cool packet of recipe cards with 12 seasonal lamb recipes when I made a purchase at a farmer's market and I've already used two of them!
 - **Connect with more restaurants** to help get your farm name out to the greatest number of consumers!
 - **Partner with local school systems** around farm and healthy food education – there are between 10-13 schools listed on the census in your target area! Maybe allow school groups to come to the farm in the early spring and teach them about soil preparation, or let them help plant seedlings in the greenhouse.
 - **Assess current marketing materials and approach**
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- **Growth Strategy for Vegetable Production**

FINDINGS: Current vegetable production includes many mainstream market vegetables, and only some niche products. There is a fairly high level of competition for these products in your market area.

RECOMMENDATIONS:

- **Identify other niche products** that will set Star Root Farm apart from the competition. Consider the expansion of production to include the premium CSA offering option.
- **Create brand identity** – Currently Star Root Farm operates fairly well under the radar. Increasing your brand and the identity of your farm visibly will help you capture greater market share.

- **Proactively SELL yourself, your product and your mission** - approach new markets and let them know that you are not only looking to sell to them, but that you might be able to tailor production to suit their needs!

- **Final Strategic Growth Plan**

Mission Statement: To put more of the available farmland at Star Root Farm back into production to grow food for the community and to create a place for like-minded people to be engaged in meaningful work on the land.

Goal for the Project: Develop a Business Plan with 3-Year and 5-Year Projections

Step 1: Create a strategic plan with measurable and quantifiable outcomes

- Efficiency Analysis of Product Mix
- Profit & Loss for the Farm
- Optimum Product Mix
- Buyer Survey (determine demand for specific products or niche products)
- Marketing Plan
- Growth Strategy for Vegetable Production

Step 2: Identify Additional Revenue Streams

- New Products – Vegetables
 - ⇒ Are there niche products that you could provide at a premium?
 - ⇒ Are there products you could provide in volume to earn greater revenue with greater efficiency and lower cost?
- New Products – Compost
 - ⇒ Infrastructure Needed
 - ⇒ Participating Farmers
 - ⇒ Trucking – Outsource or In-House?
 - ⇒ Inputs: Wood Shavings/Sawdust, Manure, Vegetable and Organic Waste, Shellfish or Lobster Waste, Food Waste?
 - ⇒ Compost Analysis – UMO? Bigelow Labs?
 - ⇒ Organic Certification – MOFGA or Other?
 - ⇒ Product Packaging – Commercial Delivery or Bagged for Retail
 - ⇒ Brand Development
 - ⇒ Marketing and Business Plan
- New Products – Value-Added

- ⇒ Winter Products
- ⇒ Canned Goods
- ⇒ Frozen Goods
- New Products – Collaboration & Marketing?
 - ⇒ Could the Farm develop year-round sales with the addition of meat or dairy, or even vegetable products leveraged from other farms?
 - ⇒ Could the Farm increase sales to current customers by “brokering” other goods from other farmers using their current relationships with hospitals and Jackson Labs?
 - ⇒ Could the Farm increase sales if they partnered with a protein farmer, fisherman, or winery?
- Farm Stand?
 - ⇒ Could the Farm Stand be profitable again and worthwhile?
 - ⇒ With the introduction of other farm products or bakery products?
 - ⇒ Would the Farm Stand be worthwhile if it was manned by volunteers? An Intern?
 - ⇒ Could you rent out the Farm Stand, if uninterested in running it yourself?
- Develop Financial Projections for Top 3 Ideas

Step 3: Find Help

- Labor Plan – Identify What You Need Help With...
 - ⇒ Interns
 - ⇒ Partner/s
 - ⇒ Tenant Farmers
- Find Programs to Aid in Labor Cost

Step 4: Create Strategic Partnerships for Building Housing

- Shelter Institute
- Yestermorrow School
- Maine Primitive Skills School
- Local Colleges or Schools
- Veteran Farmer Coalition
- Others?

Step 5: Develop Live/Work Contracts

- Create framework for new co-housing/tenant farmer program
 - ⇒ Rent or Purchase?
 - ⇒ Number of Acres
 - ⇒ Type of Housing
 - Centralized or Decentralized Facilities
 - ⇒ Size of Housing
 - Small House Living?

- Zoning Requirements
- ⇒ Any Limit to Family Size
- ⇒ Pets?
- ⇒ Work Requirements
- ⇒ Communal Farm or Tenant Farm
- ⇒ Issues with Competition for Markets
- ⇒ Level of Diversification
- ⇒ Education for Farmers
- ⇒ Shared Equipment
- ⇒ Resources Needed?
- ⇒ Liability and Insurance

Step 6: Market and Recruit Tenant Farmers/Co-Housing Tenants

- Develop Name Recognition and Brand
- Identify Marketing Channels
 - ⇒ Advertise out of state or Maine only?
- Become Leading Agricultural Provider

Timeline: Implementation should begin immediately in 2014 and continue through 2016. At that point, overall return on investment should be analyzed for those areas that were prioritized for growth.

Success metrics should include:

- # of new CSA customers
- # of new wholesale/retail customers
- \$ value of farm improvements
- Overall increase in farm profits, as a % of total profits
- Goal of \$30,000 in farm income
- Capital project success – Processing/storage facility up and running, roadside stand open, incubator farm model
- Increase in market area? This could be a potential goal
- Increase in labor resources
- Overall work/life balance and “happiness” factor

Market Channels: Low cost or free marketing techniques in target area – flyers, word of mouth incentives, “take aways”, strategic partnerships. Proactive marketing to new target markets – local food groups, specific market segments, mailings, schools, and summer camps. Need for a complete marketing plan – suggestion is to create an internship! Or work with CYON on developing both a logo and brand, along with marketing materials and a website!

Cost of Implementation:

Increasing Efficiency and CSA Price: No up front cost

Capital Improvements: \$1,000 - \$3,000 for pack house renovation

Growing Production Capacity: \$200 - \$500

Labor, Marketing, Administrative Efficiencies: \$5,000 - \$10,000

Incubator Farm Business: Capital Budget Process to determine cost

Composting Operation: Capital Budget Process to determine cost

Total Strategic Growth Plan Project Cost: \$0 - \$10,000 for vegetable production

Outcomes from our work with Star Root:

- CYON has created this report for Star Root Farm as a tool to use going forward as they continue to assess their business and production efficiency.
- As part of our work together, CYON has provided a framework for analyzing efficiency through process mapping, calculating inputs vs.

outputs and understanding that the most efficient system is one where the marginal revenue (profit from creating one additional unit of product) is EQUAL to marginal cost (cost of creating one additional unit of product).

- We have provided a cost effectiveness or efficiency analysis for two product lines that Star Root produces commercially. This can become a tool going forward where you can plug in updated numbers and run the calculations yourself to see if your efficiency (economies of scale) are improving.
- Healthy Acadia has created networking connections that have resulted in additional sales and entry into a new market for Star Root – Jackson Laboratory.
- CYON has made numerous recommendations for ways that Star Root Farm can adjust operations to make them more efficient with the most important recommendation being around the development of a more sustainable pricing model and varied tiers of CSA offerings.
- CYON has provided a listing of grant, loan and other funding resources to help with capital expenditure costs.
- CYON has provided feedback on marketing materials and ordering information, suggesting greater flexibility in the CSA share design.
- CYON has helped to identify target growth areas for prioritization and illuminated less efficient product lines.
- CYON has provided resources for online tools for increasing sales and visibility
- CYON has provided market research for your target areas and suggested new target areas with a few suggestions for ways to market to those new areas.
- CYON has provided additional word of mouth marketing support to help expand the reach of the Star Root brand.



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- CYON has suggested improvements to the farm store, including networking with other producers of different farm products and value-added products to increase offerings to customers and create a year round consistent level of sales.
- CYON has assisted in the submission of a Letter of Intent for an additional grant to aid in the development of a complete business plan and financial feasibility study related to farm growth and diversification. If that grant is received, CYON will continue to work with the farm to realize their goals.

Thank You: I would like to thank you for the opportunity to work and learn together. I have greatly enjoyed our interactions and appreciate the opportunity you gave me to learn more about your farm, the market area you serve and the larger vision you have for your land. If you have any questions after reading through this report, please do not hesitate to call on me.

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