

Value-Added Local Food and Farm to Institution Sales in New England: *The Just Soup Case Study*

The popularity of Farm to Institution programs in New England has boomed in recent years – in 2015, 79% of New England public schools responding to the USDA's Farm to School Census reported having Farm to School Programs, and 74% of reporting schools plan to buy more local food in the future¹. Demand is growing, but it can be a challenge for institutions to source wholesale fresh products and serve product in an institutional cafeteria in a region where there is already high demand for direct marketed local food, where seasonality limits the availability of local product, and where institutional buyers do not always have the capacity to prepare raw product.

While farmers, brokers, distributors, institutions, and program practitioners develop efficient supply chains to deliver fresh products to institutional consumers, a number of farms and non-profit organizations are trying to turn the seasonality question on its head; Instead of delivering fresh produce to institutional food service providers to cook into healthful dishes, why not deliver lightly processed, healthful dishes to institutions?

Just Roots Community Farm is pursuing just that – transforming locally sourced produce into healthful soups, and selling those soups to schools, hospitals, and correctional facilities. This case study will investigate the convergence of stakeholders and resources that make the Just Soup project possible and identify the potential for the project to be financially viable, and discuss the applicability of the project in other community contexts. This case study was completed with generous assistance from Just Roots staff, including internal organizational documents.

Stakeholders & Resources

Just Roots Community Farm is a non-profit farm in Greenfield, MA, that is devoted to increasing knowledge about, and demand for, local food in Franklin County, MA by "Increasing access to healthy, local food by connecting people, land, resources and know-how²". Though Just Roots is a young organization, it is ideally placed in region that offers significant support from both individuals and organizations with complementary goals. Just Roots has effectively leveraged the resources of the community to begin a viable working farm and develop its Just Soup project. This section will outline the resources and partners that Just Roots has engaged to build their organization and project, and to acquire productive farmland and start a working farm.

Land & Start-up Funds

Just Roots Community Farm began in 2008 "as a grassroots group of concerned citizens looking to promote vegetable gardening and grow food on municipal land²".

In addition to skilled gardeners and farmers, group members included seasoned leaders with non-profit and for-profit business experience and strong community relationships. The group realized that the first, and perhaps most important, hurdles to realizing their goal were to find productive farmland and funding. The group incorporated as a non-profit, worked with the mayor and staff of the Town of Greenfield to identify potential available farm land, and with the Franklin County Community Development Corporation as a fiscal sponsor to pursue funding for organizational support and programmatic funding.

Working with the town's Director of Planning, Just Roots identified a plot of 61 acres of arable land that had, poetically, been sold to the town by landowner Justin Root in 1849 to become the Greenfield Town Poor Farm, which it remained for about 100 years. Between the mid-1950s and 2009, the town leased the land to local farmers, who generally grew feed corn and hay. In 2009, the Town worked with Just Roots, a regional land trust, and a number of other community organizations to place 31 acres of that land

under the protection of an Agricultural Preservation Restriction (APR). The Massachusetts APR program allows land owners to voluntarily and permanently remove a parcel of agricultural land from threat of

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development, while compensating the land owner the difference between the “fair market value” and the “agricultural value” of the land. The Greenfield Town Council voted unanimously to support the sale of the development rights of the town-owned land in 2011 in exchange for the APR, and the Commonwealth of Massachusetts compensated the town \$198,000 for these rights³.

In August 2011, Just Roots entered into a 15 year lease on 61 acres of land with the Town of Greenfield for the “purposes of operating a community farm and conducting educational programs”. Just Roots agreed to pay \$1,000 per year in rent for the whole 61 acre parcel for the duration of the lease, or \$16.39/ acre. This is 99.8% less than the 2010 Massachusetts Average Real Estate Value of Agricultural Land of \$11,600/ acre³. In addition to rent, the organization agreed to reach and maintain certain benchmarks for the farmland, the organization, and educational programming (see sidebar).

The organization then chose to manage the land as a non-profit, instead of leasing the land to a farmer. Financially, this choice came with risk as it made the farm operation ineligible for a number of USDA loan products, and shifted the burden of on-farm infrastructure and capital investments to the organization instead of an individual farmer. The tradeoff is that the community, through the non-profit organizational structure, maintains control over the farm and is able to pursue community goals, and the farmer is paid a salary.

In 2011, the organization began to operate on a shoestring budget of \$10,750 raised from individual donations. Members then leveraged the expertise and strong relationships of the community members involved to successfully secure additional individual contributions and loans, and apply for grant funding. In 2011 Just Roots collaborated with the Franklin County Community Development Corporation (FCCDC), Greenfield Community College (GCC), and the Franklin Hampshire Regional Employment Board on a USDA Community Food Project Grant. Just Roots received \$105,000 from this grant between 2012 and 2014 to hire a farmer to manage the farm and to begin educational programming. The organization also secured a \$75,000 equipment grant from the Town of Greenfield in 2012, and a three-year \$36,000 grant from the United Way of Franklin County for educational programming in Greenfield Public Schools in 2015. Just Roots energetically raised contribu-

Town of Greenfield Lease Agreement Benchmarks

The Farm

- Soils are improving;
- Farm follows organic practices;
- Conservation plan for land is in place;
- 20 acres are under active management
- Farm produce is entering the Greenfield Food System.

The Organization Just Roots, Inc.

- Regular audits are conducted as required by law;
- 501 c-3 status is maintained;
- The organizational history, records, and grants proposals are held publicly at the Greenfield Public Library;
- An annual farm “community meeting” plus social media are utilized for regular community input;
- An annual farm report is published.

Educational Programming

- Community visits to the farm are tracked;
- 40 community garden plots are available to the public;
- Menu of educational offerings are publicized on a quarterly basis;
- Education opportunities are first opened to Greenfield residents;
- A plan for the Greenfield Schools/Community Farm collaboration is in place.

tions from community members to support the start-up phase of the organization, raising an additional \$19,098 in 2012; \$104,970 in 2013; and \$95,672 in 2014.

Despite their ineligibility for USDA loan products, the organization has been able to acquire competitive loans within the community, from both individuals and a local credit union. In 2013, the organization borrowed \$50,000 from individuals at 4% interest, due in full March 2018; In 2014 the organization borrowed from \$35,000 at 4% interest, due in full April-May 2019, and an individual loan of \$15,000 at 4% interest, with interest deferred through the end of 2014. Finally, the organization borrowed a term loan of \$15,000 at 4% interest from a local credit union, with final payment due in April 2019.

Let the Farming Begin

With these funds, Just Roots began to work towards its goals. In 2011 volunteers promptly planted a one-acre demonstration garden to provide educational programming. In 2012, the organization hired a farmer and seeded the fields to cover crops, and in 2013 about an acre of land was prepared for community garden plots for over 50 individuals and organizations. That year also saw new

products will be available in three markets – the direct market, through a CSA; the retail market, through sales at a local food cooperative; and the intermediated farm to institution market, through sales in cafeterias in public schools, the county jail, and the regional hospital. Subsidized Just Soup CSA shares will be available for low-income shareholders. To date, pilot sales have been limited to small quantities sold directly through the CSA and intermediated through public schools food cafeterias.



The goal for the Just Soup project is to produce 5,000 gallons of soup per year, with 60% of the ingredients sourced locally, and including 20% sourced from the Just Roots farm. The remaining 40% will be sourced from a regional distributor or farmer-aggregator, if possible, and a national distributor if not.

Just Soup Pilot Project

The learning curve and startup costs for developing a value-added food product can be steep, which makes the two year BFMC grant to support pilot production and start-up costs a particularly valuable one for the farm. In 2015, Just Roots tapped the expertise of the FPC Operations Manager to develop and field test ten soup recipes and commercial-scale batches, settling on six popular and cost-effective choices. In addition to the costs of these pilots, Just Soup spent about \$2,000 to design an appealing product label, and \$800 to train four Just Roots staff and volunteers to become ServSafe certified in safe food handling practices. Finally, Just Roots is licensed to prepare and serve food products under the Town of Greenfield Board of Health's Common Victualler License, which costs \$100 per year.

Just Root's affiliation with the FPC commercial kitchen, a non-profit food incubator, provides a number of resources that mitigate many value-added food product start-up and operating costs. As a food incubator, the FPC buys, maintains, and trains start-ups like Just Roots in the operation of commercial-grade food production facilities, equipment,

and best practices, thus removing the need to make large up-front investments, and is licensed to sell wholesale products under the FPC's state wholesale sales license.

The second production pilot focused on scaling up the six finalized varieties. This production run was more expensive than anticipated; What follows are Just Root's estimates of costs of production for this run. These costs of production do not include the fixed costs associated with the Just Roots organization outlined above, nor do they include costs of storage, distribution, Just Roots staff and volunteers, advertising, and marketing. Again, the pilots are supported by grant funding.

Just Roots hired the FPC to co-pack the first production run of the final six varieties, producing 500 gallons of soup over four days. In addition to the FPC Operations Manager and one Just Roots staff, the FPC hired temporary workers from a local agency to help with production. The total hired labor cost for the four days of production was \$4,248, which does not include the cost of Just Roots staff. This first at-scale production run is likely to be inefficient as workers learn protocols and processes; subsequent production runs are expected to be more efficient. Labor costs are by far the largest cost of production, so Just Roots expects that the costs per unit produced will decline dramatically.

The pilot production runs used ingredients purchased from both a regional and a national distributor for \$2,563. The costs of ingredients will vary; The costs of ingredients sourced from the Just Roots farm will depend on the market value of the product, were it to be sold through a CSA or farmers market. The organization is actively looking for local growers who will agree to plant and sell soup product ingredients to the organization, and to the extent possible, would prefer to source seconds, or products that are sound but not photo-perfect. Just Soup will always need to purchase certain ingredients, like a gluten-free commercial soup base and spices, from a distributor.

Soups are packaged differently depending on the market to which they are sold. Direct marketed and retailed products are sold in quarts, while intermediated wholesale products are sold in two gallon pails. The costs of printed

labels, containers, and packing boxes vary by unit size. Just Roots estimates that the costs of packaging is \$1.79 per quart and \$2.79 per two gallon pails.

Using these costs, Just Roots estimates that in this production run the costs of producing a quart of soup were \$6.42, and the costs of producing a pail of soup were \$11.42. Quarts of soup sold through the CSA were \$5.00, and the Just Soup project took a \$1.42 per quart loss, while pails sold to two local schools for \$16.00 made a profit of \$4.58 per pail. The target retail price of quarts sold in stores will be \$7.50.

An unanticipated cost was the cost of storage. The nearest available frozen storage space was about 30 miles away. The cost of storage was reasonable at \$5 per pallet per month, but the cost of shipping the product in a freezer truck and then shipping small quantities back to the area for each sale was prohibitive. Just Roots instead decided to buy an 8 x 17 foot stand-alone cooler/ freezer for \$10,000, which includes a used freezer unit, a new compressor, and shelving. The unit costs between \$100 and \$150 per month to operate, and is currently in use between November and April, but may also be used as a cooler to store harvested vegetables in warmer months.

Just Roots distributes quarts through its CSA shares, so there no additional costs associated with that distribution. Just Roots staff and volunteers deliver pails to local school cafeterias as demanded, however, as volume increases and the number of participating institutions increases, the organization may need to develop a more formal delivery system, and bear the costs of that distribution.

Market for Just Soup

Just Roots plans to market its soups to institutions, through CSA shares, and through sales at a local retail grocery stores.

Just Roots has worked extensively with the Town of Greenfield Public Schools (GPS) to develop a product

appropriate for institutional food services.

Greenfield Public Schools runs a self-operated food service, which means that they do not contract with a food service management company. As a result, the food services staff members have latitude to work with community organizations like Just Roots to source local foods to serve in the cafeteria. Just Roots tested the ten varieties of soups with students in GPS, and used these results to help select the six varieties to be made on an ongoing basis. The first test run was sold to GPS in October, 2015, and was a success (Davis, 2015). GPS plans to buy Just Soups regularly as production increases. Just Soup has also been sold to another regional

public school district, the Greenfield YMCA, and to a regional housing development for community events.

Just Roots has identified a number of potential institutional buyers for Just Soup. Greenfield Community College has a goal of locally sourcing 20% of the food served in its cafeteria. Other potential buyers include regional public school districts, the Franklin County Jail and a nearby private liberal arts college. Finally, Baystate Franklin Medical Center, the project's original funder, plans to purchase soup for sale in its cafeteria.



The market price that Just Roots will charge for its soups is higher than the cost that most of these institutions would usually pay for a similar product, but, as the GPS Food Service Director states,

“The value is in teaching students healthy practices for later life”

“We really want Greenfield students to know the importance of eating healthy food and also to understand why eating food that’s grown locally is beneficial to where they live ... so we see this as an educational tool”.

Just Roots sells Just Soup winter CSA shares for the 2015-2016 season. The CSA runs from April to November, and was expanded from the originally planned 50 shares to 65 shares due to large demand. Shares are \$180, or \$30 per month. Pick-up is monthly at the farm, and each share includes six quarts of frozen soup. In 2016, Just Roots plans to run a 52-week CSA, with fresh vegetables for 20 weeks and soup for the remaining weeks.

investments in farm infrastructure – a new well was dug and staff and volunteers built a propagation greenhouse and a high tunnel – and the beginning of a revenue stream from the sales generated of 3 acres of vegetables, which Just Roots sold at farmers markets and through Community Supported Agriculture (CSA) shares.

Vegetable sales generated \$53,536 in revenues from production in 2013, which grew to \$83,667 in 2014 as the productive acreage grew to 5 acres. Just Root's largest operating expenses came from salaries and benefits, farm operations, and education and outreach. As with all farm operations, the greatest expense in all years is for salaries and benefits – about \$150,000 in 2013 and about \$200,000 in 2014. While salaries and expenses are a large part of the farm's operating budget, they do not reflect the total amount of labor expended on the farm. In addition to labor provided by three salaried staff and nine hourly workers, a significant amount of farm and educational programming labor is provided by community volunteers – about 2,000 hours per year. In addition, the farm worked with six unpaid interns, one paid intern, and an additional stipended eight youth from Greenfield High School, paid through the Franklin Hampshire Regional Employment Board's portion of the collaborative CFP grant. Farm operation expenses in 2013 were about \$25,000 and about \$40,000 in 2014. Expenses for education and outreach to further the organization's mission totaled about \$6,000 in 2013 and \$20,000 in 2014, noting again that the expenditures for education and outreach do not reflect in-kind contributions of labor and materials.

In the 2015 growing season, the farm added about three more acres of productive land, began to raise poultry and

collaborate with an area cattle operation to offer a meat CSA, and began to offer winter Just Soup CSA shares. As of this writing, total revenues, expenses, and individual contributions from 2015 are not yet available.

While the farm has energetically pursued revenues in order to become self-sustaining, it maintains its social mission to increase access to healthy, local food by connecting people, land, resources and know-how. In addition to educational programming and community garden space, the organization offers subsidized CSA shares and Senior Shares, donates produce to a food pantry and a local pay-what-you-can café, and runs an elementary school "snack café" that introduces children to healthful fruit and vegetable snacks.

Just Soup

Just Root's many innovative programs certainly increase access to healthy local food, but the organization decided that it wanted to do more. In 2014, the organization developed a new project – Just Soups. In collaboration with the Franklin County Community Development Corporation's (FCCDC) Western Ma Food Processing Center (FPC), Just Roots applied for a two-year, \$100,000 grant from the Baystate Franklin Medical Center (BFMC) to develop six healthful soups made with local produce for retail and wholesale sales. The Just Soup project has the potential to achieve a number of different objectives. Soup can be prepared when produce is fresh and frozen for accessible, healthful meals during New England's long winters, providing both healthful food to consumers and a winter income stream for Just Roots. The product is value-added, and so may capture a retail premium, allowing Just Roots revenues to offset the expenses of a non-profit educational farm. Finally, soup is a straightforward value-added product that fits well into the needs of institutional food service providers. Most food service kitchens have the equipment and staff skills needed to thaw, heat, and serve soup. The BFMC grant supports Just Roots in 2015 and 2016 in the business development phase as it pilots different soup recipes and develops a business plan. This section will outline the resources and partners that Just Roots has engaged to develop a soup product, a market for a soup product, and the viability of the soup product.

Just Roots anticipates that the Just Soup project will be a profitable revenue stream for the organization. Just Soup



Just Roots anticipates selling frozen quarts of soup to three local food co-operatives, and possibly regional grocery stores. The target retail price of the soup will be \$7.50 per quart, which is competitive with ready-to-eat soups sold in the deli section of these stores for around \$8.00 per quart. However, this market price will need to be negotiated with each retail outlet.

The Future of Just Soup

It is remarkable how quickly Just Roots has transformed from a kernel of an idea in the minds of community activists, to an operational farm with educational programming and a value-added product line. The successes of this organization are due to the energy and expertise of a core of volunteers, and their abilities to leverage strong relationships with a robust community of food systems stakeholders. Those stakeholders include municipal staff and elected decision makers in the Town of Greenfield, and funders like USDA, Baystate Franklin Medical Center, the United Way of Franklin County, individual donors, and a local credit union. Other stakeholders include partner organizations that can offer specialized value-added food production services, like the Franklin County Community Development Corporation and the Western Ma Food Processing Center. And many stakeholders are both partners in the educational mission of the organization, and potential buyers of the Just Soups product, like regional public school districts and colleges, hospitals and jails.

Even with the convergence of so much support, the Just Soup project will need to be cost-effective going forward. The current costs of production, even without including important costs like staff hours, storage, distribution, advertising, and marketing, may not be sufficient to have a viable long term soup enterprise. The next year of grant-supported product and market development will be important for the long term future viability of the Just Soup project.

What lessons can be drawn from Just Soup for other farmers? Creating a value-added product for the institutional market, particularly in New England, has potential. However, farmers face significant costs and unanticipated challenges in the value-added market. The key ingredient that points to future success and viability of the Just Soup project is the ability to leverage the resources of the community.

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¹ Farm to Institution New England. (2016). <http://dashboard.farmtoinstitution.org/schools/>.

² Just Roots. (2016). <http://justroots.org/about/organization/>.

³ Mount Grace Land Conservation Trust. (2016). <http://www.mountgrace.org/farm-conservation-greenfields-town-farm>

⁴ Town of Greenfield. (2011). AGREEMENT (Agreement) Town Farm Property. Available from author upon request.

⁵ Center For Agriculture, Food, and the Environment. (2016). <https://ag.umass.edu/farm-real-estate-values>

⁶ Davis, R. (2016). Just Roots, souped up: Community farming initiative grows. The Recorder. <http://www.recorder.com/readerservices/goinggreenxm->



