

HAMPSHIRE COLLEGE FOOD, FARM, AND SUSTAINABILITY PROGRAM

Report: Accounting Systems for the 100% Local Food Challenge

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Introduction and Background

In 2012, Hampshire College embarked on the Healthy Food Transition, an initiative aiming to redefine food on campus in a manner that actively strives to support the health and vitality of students, faculty and staff, along with those in the broader community. The Healthy Food Transition has taken an all encompassing approach to improving the status of dining at Hampshire, this includes exploring how the school can strengthen cooperation with local producers and grow local food purchases. This has resulted in the pursuit of the 100% Local Food Challenge. The Challenge addresses many of the socioeconomic and environmental issues facing the food system by pushing Hampshire to source 100% of its food from within 150 miles of the institution (with the only exceptions being products that cannot be grown locally, such as citrus and coffee). The Challenge is ambitious, and a considerable amount of involvement will be required to foster additional relationships with local producers, coordinate local processing, and ensure the supply consistency of goods sourced from a collection of dedicated but small-scale and decentralized producers.

This is the type of initiative that will be required to build more robust local and regional food systems, with an institutional customer such as Hampshire accounting for a significant amount of food purchases. It has been demonstrated that shifts in institution-specific policies can be pivotal in shifting the composition of regional food systems; local food purchases have also been shown to support on-campus food systems (e.g. meal plan participation increases) (ATTRA, 2003 & Porter, 2015). Making the transition towards sourcing food 100% locally does present its challenges though. Coordinating with numerous small, local producers represents a departure from conventional food service sourcing practices, and the logistics surrounding such an approach remain a challenge. There are other challenges too, such as the financial burden of designing and operating such a system. To address some of these barriers, the school has fortunately received funding from the *Henry P. Kendall Foundation*. Indeed, “challenge” is an apt descriptor for the initiative and a key component will be defining oversight mechanisms in order to hold ourselves accountable to the goals of the 100% Local Food Challenge.

There are a few ways by which Hampshire can go about ensuring alignment with the objectives outlined by the 100% Local Challenge, and identifying the accounting system that best fits the needs and values of the institution is an important piece of groundwork. This aspect of the project requires identifying methods that will provide transparency, engagement, and accurate oversight. In order to arrive at the best possible system, two Kendall Intern positions were created in the fall of 2015, and were supported directly by the generous contributions of the Kendall Foundation. These internship positions allowed two interested students to work closely on the issue of purchasing oversight for the initiative, ultimately recommending the best auditing mechanism for the 100% Local Food Challenge at Hampshire.

Kendall Internships

The Kendall Internship had a broad purview that included reaching out to many of the stakeholders involved in the 100% Local Food Challenge. In addition, the interns were tasked with reviewing auditing mechanisms that may be applicable to the challenge, and recommending the best oversight approach based on the needs and values of Hampshire. Further, the two-person team conducted a preliminary audit of the dining commons' purchasing records for fiscal year 2015 (FY2015). For nearly six months, the interns worked closely on these issues and have gained the requisite knowledge necessary to make a recommendation to the community. After having completed extensive research—on the topics of local food systems, institutional procurement, community involvement, and food accountability—the team feels confident that their recommendation is appropriate for Hampshire College, and leaves plenty of room for flexibility in many key areas.

The recommendation put forth by the Kendall Interns is the implementation of an auditing system that takes a similar structure to what is known as Participatory Guarantee System (PGS). According to the International Federation of Organic Movements (IFOAM) PGSs “are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange”(IFOAM Website, n.d.). This approach emphasizes stakeholder engagement over third party certifications and will allow for a tailored oversight mechanism. The research team felt that a PGS type system will best support Hampshire's values, the specific goals of the 100% local food challenge, while allowing for in-depth student participation. Recommending a PGS is not intended to serve as an opposition to other accounting systems, but rather is a result of the specific factors that the internship is addressing; for other purposes—and depending on community desires and motivations—it may be worth revisiting the appropriateness of other accounting systems.

A preliminary audit conducted by the research team also resulted in more general recommendations regarding the current status of the 100% Local Food Challenge. This includes holding our food service provider, Bon Appétit Management Company (BAMCO), accountable on their local purchasing targets and ensuring our campus farm is integrated into the initiative in the most constructive manner.

Methodology

Interviewing farmers and auditing purchasing records were two components of this project that allowed for the research team to address Hampshire's specific procurement process. Here, the team was able to experiment with methodologies, establish baseline local-food purchasing figures, and enter into more focused dialogues with local producers. This was a portion of the project that allowed for the research team to apply the knowledge gained from literature reviews and

preliminary meetings with campus food system stakeholders. Interviews were conducted on-site at the farms of Hampshire's local food suppliers. The auditing process took the form of reviewing invoices supplied by BAMCO.

Audit

The Audit offered the team an opportunity to establish baseline local food purchasing figures while also exploring various accounting techniques that may be useful going forward. Auditing consisted of reviewing multiple forms of purchasing records from the dining commons, recording information in an electronic format, and contextualizing the figures in terms of total purchasing numbers.

Through out the summer of 2015, the Kendall Interns reviewed purchasing records from the dining commons in order to conduct an audit of fiscal year 2015. Records reviewed include reports generated through BAMCO's Farm to Fork program, corporate purchasing card statements, and petty cash logs (with some suppliers only accepting cash). All of these sources were reviewed and compared in order to ensure total coverage of FY2015 and that no duplicates were included.

Information collected during the auditing process was entered into spreadsheet format using Microsoft Excel. Purchasing figures were organized by supplier, and chronologically ordered within each supplier segment (produce, meat, dairy, and other). Detailed notes were recorded when possible, including invoice numbers, item descriptions, cost per unit, and order total (although not all of this information was available for each order). The summary of this document can be viewed in the "Results" section of this paper.

Farmer Interviews

An integral part of this the project, and one that heavily formed the basis for this report was meeting with some of Hampshire's existing local suppliers at their operations. For this process the research team crisscrossed the Pioneer Valley, speaking with vegetable growers, orchardists, dairy farmers, and other types of food producers. These interviews were multifaceted in nature with the team aiming to gain insights on the operational characteristics and histories of Hampshire's local partners. The interviews also served as a trial run for enacting a Participatory Guarantee System for overseeing our local foods initiative. This portion of the project proved to be highly informative, with the team gathering the most up to date information about local farms, and learning about their experiences working with Hampshire College dining services.

In the summer of 2015, the research team selected farms to visit that would best support the project's goals; this involved interviewing a diverse set of producers from all segments of the local food system. It was important that the team spoke with vegetable, fruit, and livestock farmers in order to improve the team's knowledge of a wide array of topics in the local food system. Additionally, this wide array of farmers helped the team formulate how future interviews could best inform the local foods oversight approach for all food products. Other factors that influenced the selection process include the nature of the operation (i.e. farms not

processors), distance from Hampshire, and the quantity of foods purchased from the farm. In total, the research team visited nearly half of Hampshire's current local food suppliers.

Farmer availability was one immediate challenge, and creative interview formats were required to speak with farmers. Interviews often took place in the field, with interview team sometimes walking alongside the farmer during morning chores, or even weeding fields with the farm crew in some cases. This format actually proved to be fairly effective, with it providing a chance to tour the farm, speak with the farmers, and see the farm's day-to-day operations. Prior to beginning the interview process, formal question sheets were drafted specifically for produce growers and livestock farmers (see appendix A). These sheets ensured that the team touched on the important issues, while also providing some structure to the interviews. However unstructured dialogues would also take place, providing more informative interviews than simply asking premeditated questions.

From the interviews, our team was able to gather information pertaining to a wide array of topics relevant to Hampshire's local food initiative. Beginning with general farm characteristics, the team was able to clarify operational practices, certification status, along with gaining unforeseen information that the farmers may happen to mention. Considering many small, local farms do not hold many (or any) third-party certifications, this portion of the process is vitally important in order to confirm that the farm's operational philosophy is well aligned with priorities outlined in Hampshire's Sustainable Food Purchasing Guide. The team was also able to gather information related to the farm's experience working with Hampshire College and our foodservice provider, Bon Appétit Management Company. Furthermore, the interviews provided anecdotal information on challenges and opportunities facing local farmers—such as optimal marketing channels and participation in federally funded conservation programs. A potential broader impact of the interview process is that the information gathered may inform future work on small farm viability in the Pioneer Valley by Hampshire students, faculty, and staff.

The full results from the interview and auditing process are available in the appendix B, C, & F sections of this report.

Purchasing Guide Comparison

The following section offers an overview of Purchasing Guides Relevant to the 100% Local Food Challenge. This includes a comparison of Hampshire College's Sustainable Food Purchasing Guide, Bon Appétit's policies and Farm to Fork Program, and the Real Food Challenge's Real Food Calculator.

As the 100% Local Food Challenge progresses at Hampshire College, it is vitally important that the community explores how accountability will be achieved. This includes refining purchasing policies and identifying how the college will hold

itself accountable to its principles and goals. Hampshire is fortunate enough to have a unique set of resources not often present at institutions of higher education—between our on-campus farm; dedicated and agriculturally knowledgeable students, faculty, and staff; and geographic location, the school is in an excellent position to tackle the issue of local food procurement. However, this does not mean that the institution can simply redirect its food dollars towards local producers. This process must be supported through constant review and oversight, ensuring that actions are well aligned with the core values of the initiative—making certain that the school is both hitting the purchasing targets, but also that the program remains focused on the political, economic, and environmental issues that inspired it in the first place. Further, the 100% Local Food Challenge must remain connected to an informed campus community—creating an environment in which students, faculty, administration members, and others can engage with the program and work towards the continual refinement of the initiative. In order to provide the necessary oversight mechanisms and opportunities for refinement, Hampshire College with the support of the Henry P. Kendall foundation created an internship to recommend the best manner in which to integrate accountability and continual development into the initiative.

There are three existing purchasing guides that may influence the 100% Local Food Challenge (although not all three are technically “guides” so to speak, they are referred to as such in the section). For this section, all three purchasing guides are reviewed—Hampshire’s current Sustainable Food Purchasing Guide; Bon Appétit’s general purchasing policies and Farm to Fork Program; and the Real Food Challenge’s Real Food Calculator. The Hampshire College Sustainable Food Purchasing Guide and the BAMCO Farm to Fork program currently play an active role in the 100% Local Food Challenge, while the RFC’s Real Food Calculator is under review.

Overview

There is a considerable amount of variation among the three guides outlined in this piece. Represented in the lineup are internal college policies, corporate operational policies, and an auditing program supported by an external non-profit organization.

Hampshire’s Sustainable Food Purchasing Guide provides an overview of where the college’s food purchasing priorities lie and which specific factors the school is most sensitive to during the supplier selection process. The guide influences the college’s relationship with foodservice providers—dictating how food is purchased for the dining commons, campus café, and for catered events funded by the school.

Bon Appétit Management Company’s (BAMCO) has general operational policies regarding sustainable practices, but their local food purchasing policies are mainly outlined in their Farm to Fork (F2F) program. The F2F program is intended to provide structure for incorporating local food vendors into their supplier network; the program takes into account the size of farms and their distance from the respective account, among other factors. It is the policy of the company to route

20% each location's purchases through the program. BAMCO is a foodservice provider focusing mainly on institutions of higher education. The company manages over 500 locations and is estimated to have annual revenue of over \$500 million.

The Real Food Challenge (RFC) is a nation-wide initiative that aims to shift \$1 billion dollars worth of higher education food purchasing dollars to more sustainable options through participation in their program. The RFC has designed their "Real Food Calculator" in order to account for a school's purchases—the RFC's calculator is both a de facto set of purchasing policies (i.e. allowed distance from producers, approved certifications, etc.) and an accounting program that is designed to provide a standard to allow for comparisons among institutions.

General Nature of the Programs

The programs outlined in this piece all function based on different evaluation principles and have varied structures. While the focus of this report is on local food procurement, each of the guides reviewed also evaluate factors such as the ecological soundness of an operation's farming practices.

Hampshire's Sustainable Food Purchasing Guide takes into account both third party certifications along with general farm characteristics, recognizing the diversity of operational characteristics present among small to medium scale farms. The HC guide makes an effort to evaluate farms on spectrum as opposed to rigidly defined criteria, leaving room for flexibility when merited: this can present challenges and requires more active engagement with the procurement process, but ultimately leads to a system that is able to meet our exact criteria and better support our institutional goals while not unfairly placing our partner farms in strictly defined categories. In addition to local food, the HC Sustainable Food Purchasing Guide also places a priority on sustainable farming practices, just labor conditions, and food safety.

Bon Appétit's Farm to Fork Program is designed to provide a local food-purchasing framework for all of the company's locations. The guide looks at farm revenue and distance from the purchasing kitchen, along with issues pertaining to humane treatment, ecologically sound practices, and food safety. The F2F program is primarily intended to provide a consistent manner for BAMCO's executive chefs to integrate small, local producers—who may not routinely sell to institutional customers—into the company's supplier network. In the context of this project, F2F provides a good starting point for our challenge (with BAMCO mandating 20% of purchases be from local farms) and also illustrates the firm's willingness to tackle issues of local food procurement. The program is a benefit in terms of documentation currently maintained by BAMCO, with local vendors already being accounted for in the F2F program.

The Real Food Challenge's Real Food Calculator is an oversight mechanism for the RFC's Campus Commitment. With the Campus Commitment, colleges and universities sign pledges to purchase a certain amount of "Real Food" by an agreed upon date. The Real Food Calculator examines factors such as local and community based operations, humane livestock treatment, fair labor conditions, and ecologically sound practices; each of these areas of interest represent a category

that food items are evaluated by, with products either being qualified as Real Food based on their status. In addition to the local and community based category, the qualifications for Real Food are determined by third-party certifications. The calculator is run by students who audit the purchasing records of on-campus dining establishments, either for an entire fiscal year or for two month “snap shots”. There are multiple levels of Real Food, with certain certifications qualifying products for either “Real Food A” or “Real Food B”; besides both types of “Real Food” there are multiple categories of food that should be avoided and that do not qualify for “Real Food” during the accounting process. In addition to internal use by the organization, the audits are condensed into a format that list “Real Food” as a percentage of total food purchasing dollars that is then publically displayed on the institution’s RFC profile page. The RFC’s calculator is designed to help schools adhere to standards outlined by the RFC, and offers an ‘off the shelf’ auditing tool for students to use when evaluating their institution’s practices.

Local and Community Based Partners

Determining what constitutes a local farm is more challenging than one might think. In the U.S., the term ‘Local Food’ is not rigidly defined by the USDA or other impartial, national authorities on food and agriculture (the U.S. congress has defined local food as food produced within 400 miles or within the same state as its consumption, which provides a significant degree of variation in goods that may qualify) (Low, 2015). Local can be defined by a number of metrics—by geographic distance, according to political and administrative boundaries (i.e. states and counties), or bioregions, among others. ‘Community based’ is generally defined by the nature of a farm’s ownership or its gross annual revenue. All of the purchasing guides reviewed here use local definitions based on geographic distance, and make distinctions on community-based using either USDA definitions of farm size, gross annual revenue, and/or corporate structure.

Hampshire’s Sustainable Food Purchasing Guide works on a sliding scale that prioritizes the ‘most local’ options first, but accounts for the fact that many high demand foods cannot be sourced within the New England region. According to the Sustainable Food Purchasing Guide, the dining commons must prioritize sourcing food from the Hampshire College Farm Center (HCFC). Food from the farm is generally provided through the Dining Common’s purchasing of HCFC CSA shares or direct sales of specific crops and livestock products. After attempting to source from the HCFC, the guide states that options within 150 miles of the school should be investigated; 150 miles includes portions of all New England states, along with large portions of New York and small sections of New Jersey and Pennsylvania. The number of farms within this region is sufficient to meet the supply requirements for many goods. However, barriers include the nature of the climate and crops that can be cultivated within 150 miles of the school, along with the economics of purchasing strictly within the region. After options within the 150-mile radius are exhausted, the guide’s next distinction is for the Northeastern US—which includes all farms in the aforementioned states. From there, U.S. and then global options are listed as least desirable—items in this category may include coffee or citrus. The guide is

ultimately a description of ideal purchasing practices, with economic and logistical factors along with product availability influencing the degree to which local foods can be provided in the dining commons.

Hampshire's Sustainable Food Purchasing Guide also discusses the benefits of small to medium scale farms. The guide states that the school aims not just to support local farms, but also small to medium scale operations (although there is a significant degree of overlap between the two). Here, HC's guide looks at factors such as farm revenue, its marketing avenues (i.e. direct to consumer and/or other local marketing efforts), along with whether or not the operation is a family farm.

Bon Appétit's Farm to Fork Program has outlined the criteria for local farms as those within 150 miles of the institution where the food is served. In terms of the community-based distinction, the F2F program qualifies farms with less than \$5 million dollars in annual sales and that are owner-operated as community-based. BAMCO uses these distinctions to determine a farm's eligibility for their F2F program. It is corporate policy of BAMCO to source at least 20% of its food from within 150-miles of any given café. It has also become BAMCO policy to host "Eat Local Challenges" at all of its Cafés, meaning the food service provider hosts at least one meal per year where all the ingredients, besides salt, are sourced within 150-miles of the institution. According to the company, this helps build dialogue about local food, while also pushing the dining service to stretch its ability to source local goods.

The Real Food Challenge's "Real Food Guide" outlines which food qualifies as "Real Food" for accounting purposes in the program. The RFC defines local as food that has been produced, processed, and distributed within 150 miles of its consumption point—this also includes the location of contract growers and the parent company.

The RFC uses a couple metrics to define "community-based" food. Here it is again worth noting that the RFC employs a system that defines multiple tiers of Real Food—termed "Real Food A" and "Real Food B", with the former being the more preferable type of "Real Food". First, privately traded or cooperatively owned businesses that gross less than 1% of the industry leader and that have full autonomy and decision making power about business, processing, and distribution practices qualify as Real Food A. Local and Community-Based Real Food B is defined by mainly the same qualifications as above, however the farm only needs to fall within a radius of 250-miles of the institution. Both Real Food A and Real Food B contribute to an institution's Real Food percentage targets (calculated as total food purchases divided by both the sum of both Real Food types).

Sustainable Production Practices

While local food is the focus of this report, the motivations for sourcing locally produced products include some of the ecological benefits that can be offered by partnering with regional producers. This was a motivator for the 100% Local Food Challenge, and the initiative aims to ensure that sustainable farming practices remain an important consideration as the initiative unfolds. Each of the guides

reviewed address ecologically sound production practices in their own manner and this section will briefly review those approaches.

Hampshire's Sustainable Food Purchasing Guide places an emphasis on sustainable production practices. These are defined as practices that "minimize negative impacts on the environment, ensure humane treatment of livestock and preserve environmental and biological resources for future generations" (Sust. Food purchasing guide, 2013). The guide evaluates sustainability of production practices based on a few factors. For one, USDA Organic Certifications can be a good indicator of a farm's practices—with certification including rotation of crops and usage of only select fertilizers and pesticides. USDA Organic certification is by no means the only indicator of sustainable farming practices, with there being other third-party certifications that can demonstrate sustainability. Furthermore, and as is more relevant to this report, another way of evaluating the sustainability of local suppliers is by gathering community feedback; this includes developing relationships with suppliers and evaluating their sustainability in the process—second party certifications from trusted organizations, such as Community Involved in Sustaining Agriculture, may also be sufficient. Key ecological considerations of the Sustainable Food Purchasing Guide include pesticide use, fertility management, crop rotation, soil conservation, animal feed type, use of growth hormones, use of antibiotics, animal housing regimen (e.g. Confined Animal Feeding Operations or pasture-based operations, among others), and sustainable harvesting of seafood.

Bon Appétit's policies surrounding sustainable production practices are outlined in a number of programs and respective documents. There are a couple programs of note that BAMCO has implemented in order to achieve more sustainable purchasing practices. The Low Carbon Diet employs a "database-driven tool" (the Low Carbon Diet Calculator) to quantify the CO₂ emission of food items and recommend menu changes to reduce environmental impacts. Seafood purchasing policies are outlined by BAMCO in partnership with the Monterey Bay Aquarium's Seafood Watch program. Additionally, BAMCO developed their Fish to Fork program in 2011—a program that places a higher emphasis on species selection (e.g. avoiding endangered species, prioritizing the purchase of fish lower on the food chain, etc.), the distance from harbor to kitchen, size of the fishing operation (owner operated, gross sales less than \$5 million/year), and traceability. It is the general policy of BAMCO to only purchase beef that was raised without antibiotics, added growth hormones, and animal byproducts in feed. Turkey and chicken must not have been administered routine doses of antibiotics in feed, and shell eggs must be cage free. The company is also increasing its purchasing of Certified Organic and Shade-Grown coffee. These policies, along with other sustainable purchasing positions, are outlined in the Farm to Fork program, on the company's website, and in their contracts with institutions.

The RFC evaluates ecologically sound practices based on multiple tiers of descending preference. These range from "Green Light" (best standard, counts as Real Food) to "Red Light" (avoid purchase, does not qualify as real food). Products evaluated include produce, meat, processed foods, coffee, tea, and seafood. The RFC relies on third party certifications for evaluation of ecologically sound practices. Certifications of note include Biodynamic Certified, USDA Organic, Rainforest

Alliance Certified, Monterey Bay Aquarium Seafood Watch, and Transitional Organic. The RFC also makes note of labels and product descriptions that may be either misleading and/or insubstantial; these include “Raised without Antibiotics”, “Natural”, “GMO Free”, and “Naturally Raised”, among others. There are also disqualification criteria such as the use of rBST for dairies. It is worth noting that a product can still count as real food if it qualifies in other categories besides “Ecologically Sound”, unless of course if the product meets the disqualification criteria.

For further information regarding the programs listed above see the following resources:

- *Hampshire College Sustainable Food Purchasing Guide:*
https://www.hampshire.edu/sites/default/files/shared_files/Purchasing_Guide_Working_Draft_january_2013-1.pdf
- *Real Food Challenge:*
<http://www.realfoodchallenge.org/commitment>
- *BAMCO's Farm to Fork Program:*
<http://www.bamco.com/timeline/farm-to-fork/>

Results

Brief note on the audit

The auditing process revealed two surprising facts: that only about 22% of the dining halls purchases are local, and that no one knew this until the process was over. With a goal of sourcing 100% of our food locally in the near future, the dining hall needs to be held accountable for growing this modest 22%** in the coming years. Therefore, it is recommend that each fiscal year be audited in a way similar to the process that we went through during this internship so that the Bon Appétit can keep track of their progress and so that the campus community as a whole can be informed about the actual amount of food that is local.

Financial Analysis

In order to fully understand how Bon Appétit’s local food purchases were distributed, the team analyzed invoices from the college’s 2014-2015 fiscal year. Information from the audit was entered into a spreadsheet, which included all of the invoices for each local farm that the school worked with during FY2015. In total, Hampshire purchased \$260,346.00** of goods from 24 local farms/vendors, all within a 150 mile radius of the College. After analyzing the spreadsheet, it was determined that Bon Appétit spends a majority of local purchasing dollars on sushi from Edo Sushi, totaling \$85,021.92. The second highest amount of money spent on local produce went to the Hampshire Farm, with \$45,623.80 spent on bringing vegetables, eggs, and meat from the on-campus farm to the dining hall. The team also analyzed how much money was going towards produce, meat, dairy, and miscellaneous items, such as sushi, coffee, and baked goods. Almost half (\$111,223.81) of the total purchases went towards items that did not fall into the

produce, meat, or dairy categories, followed by \$87,963.30 going towards produce, \$36,267.49 going towards dairy, and \$24,891.40 going towards meat purchases.

Ultimately it was determined that of Bon Appétit's total food purchases 22% was spent on locally sourced goods for FY2015. While this is less than what many would expect, this information provides the community with a good baseline that will help Hampshire in its efforts to get as close to 100% local as possible. For example, it was not known how much money was being spent on specific categories of local food, and Bon Appétit can take this information and use it to more efficiently allocate money to each category in order to increase our total local food purchases.

It is also important to note that the produce that Bon Appétit purchases from Hampshire College Farm is purchased at a discount compared to the local market rate for the same products. The research team reviewed all the produce purchased by the dining commons through HC farm CSA shares (BAMCO purchases 75 CSA shares annually); the price for these products was then compared to the average of listed wholesale prices for the same products from Red Fire Farm and Kitchen Garden Farm—both of these farms are also BAMCO Farm to Fork suppliers. The total from the averaged market prices was compared to the price that Bon Appétit currently pays for all of the produce that the dining hall gets from the HC farm. It was ultimately determined that if BAMCO were to purchase the same products from other F2F vendors, they would pay about \$28,894.45 instead of the \$17,500.00 that they currently pay for 75 CSA shares. From this, it is apparent that the farm has provided the dining hall with a healthy discount on produce and that if Bon Appétit was not able to purchase from the farm, then they would be paying much higher prices elsewhere. If the Hampshire Farm had been selling produce at prices found among other Farm to Fork vendors, the percentage of local food purchases would be noticeably higher.

***Note: After the completing auditing process and drafting this report, BAMCO provided the research team with additional purchasing records that indicated \$290,604 in total local food purchasing for FY2015 (an increase of roughly \$30,000). With these new figures, the total percentage of food purchased locally for FY2015 would be 24.6%. Due to a miscommunication, these figures were not available to research team early enough for inclusion in this report with the proper contextual information. In light of this development, the report references figures established before the research team was made aware of the discrepancy. This situation has resulted in the development of a more refined auditing approach and improved communication between researchers and BAMCO.*

Farm Visit Briefs (for full write-ups see Appendix B)

During the course of this internship, the team was able to visit seven local farms that work closely with Bon Appétit. The main purpose of these visits was to examine how these farm's operational practices align with the various guidelines. That is to say, the categories these farms fall into when looking at the Hampshire Sustainable Food Purchasing Guide, Bon Appétit's Farm to Fork Criteria, and the Real Food Challenge's Real Food A or B standards. Further, there was an interest in gaining a better sense of how these farms create and maintain a sustainable operation. In all, it was found that Hampshire's current local suppliers are dedicated to keeping the land that they work healthy and productive in their own unique ways.

The first farm visited was Simple Gifts Farm. Simple Gifts, located in North Amherst, is a 32-acre Baystate Organic Certified farm run by Jeremy Barker Plotkin and Dave Tepfer. All of the farm's acreage is managed under a land trust that aims to preserve land specifically for the purpose of sustainable farming. Simple Gifts provides the community with a variety of organic produce through CSA shares, local farmers markets, a farm stand, and through wholesale. In FY2015 Hampshire College Dining Services purchased \$3,120 worth of goods from Simple Gifts Farm.

Book and Plow Farm was next. Since the fall of 2012, Book and Plow has been providing Amherst College with sustainably grown produce, educational opportunities, and a place to build community. Although this farm works very closely with the college, it is still an independent operation run by managers Tobin Porter-Brown, Peter McLean, and assistant manager Maida Ives. Book and Plow not only provides produce to Amherst College and Hampshire College, but also to other dining halls, restaurants, and to the larger community through CSA shares. The operation is both a production farm and an educational farm, providing a valuable resource for the Amherst College community. In FY2015 Hampshire College Dining Services purchased \$9,428.50 worth of goods from Book and Plow Farm.

From there Queen's Greens was toured. The farm is a sustainably managed produce operation run by Danya Teitelbaum and Matthew Biskup. Currently, the farm is in its seventh year growing greens and its third year growing a variety of other vegetables including, including peppers and beets. Their market is almost entirely wholesale, selling mainly to four small distributors. However, the farm also sells directly to restaurants and dining halls, as well as marketing produce through a few local farmers' markets. Along with mainly selling produce wholesale, this farm is unique because of its several large high-tunnels, which allow for the cultivation of produce year-round. In FY2015 Hampshire College Dining Services purchased \$4,996 worth of goods from Queen's Greens.

Apex Orchards offered an opportunity to speak with local orchardists who supply the Hampshire College Dining Commons. Apex Orchards is a nearly 200-year old family farm providing apples, peaches, nectarines, apricots, plums, pears, grapes, and blueberries to the local community. Apex sells their fruit at farmers markets, to

other farm's CSA programs, and to wholesale buyers. They also have a pick your own field where customers can go and enjoy fresh fruit as well as a beautiful mountaintop view. With a strong foundation set by multiple generations of farmers Apex Orchards is continuing to evolve, including the construction of a new farm store and improved pick your own locations. In FY2015 Hampshire College Dining Services purchased \$5,499 worth of goods from Apex Orchards.

Red Fire Farm is a 180-acre produce farm with operations in both Granby and Montague. They have been certified organic since 1995, making them one of the first farms in the area to sign on to the USDA Certified Organic program. They grow a large variety of vegetables, herbs, flowers, and fruits; all produce is certified organic, except for their fruit. Their produce can be found all over the state of Massachusetts and can be purchased through CSA shares, farmers markets, farm stands, and wholesale. Not many farms are able to grow produce on the scale that this farm does while still maintaining such a high quality, but Red Fire is a testament to the scalability of responsible farming in the Pioneer Valley. In FY2015 Hampshire College Dining Services purchased \$5,144 worth of goods from Red Fire Farm.

Mapleline Farm is located in Hadley and has been operated by the same family for 111 years. The farm's herd of 250 Jersey cows provide milk with high fat content, a characteristic that has the milk in high demand. The farm is especially excited about supplying milk to schools and colleges in hopes of exposing students to high quality, local products. It is a policy of Mapleline to not use growth hormones, and the cattle are housed in modern, clean, and well-ventilated free stall barns. In FY2015 Hampshire College Dining Services purchased \$22,974 worth of goods from Mapleline Farm.

Austin Brothers Valley Farm in Belchertown is a beef operation that sells to some of the area's restaurants and specialty shops, along with marketing through the farm's own CSA. The Austin Brothers' herd of 75 beef cattle is primarily composed Hereford-Angus crosses. It is a pasture-based operation, with the animals having access to pasture when the conditions permit. The farm grows its own corn and hay, and slaughters animals locally. In FY2015 Hampshire College Dining Services purchased \$20,706.13 worth of goods from Austin Brothers Valley Farm.

Finally, the Hampshire College Farm was created in the 1970's and has been evolving ever since. Hampshire provides a unique farm opportunity to its students by having both a livestock operation and a vegetable production operation. The farm provides produce, meat, dairy, eggs, and maple syrup to Bon Appétit, the dining provider on campus. The farm also engages with the local community by offering meat and produce CSA shares. The farm is an important part of the campus community since it provides a place of learning and inspiration for students in all concentrations. In FY2015 Hampshire College Dining Services purchased \$45,623.80 worth of goods from the Hampshire College Farm.

Visiting these local farms was undoubtedly a vital activity that supported the team's

decision-making process when recommending a future direction for the auditing procedure. The size, location, and values of Hampshire provide an advantage that many other institutions may not have when it comes to building connections with local vendors. It is understandable and completely reasonable to have certifications/standards/categories etc. when assessing food vendors, especially when they are inaccessible for whatever reason. That being said, whenever possible, personal connections and open dialogue between farm and buyer should be forged in order to supplement general certifications.

Recommendation

The views expressed in this section are those of the Kendall Interns and do not necessarily reflect the views of the Food Farm and Sustainability program, Hampshire College, the College's staff, or the College's partner organizations.

Introduction

After working on the topic of Hampshire's 100% Local Food Challenge for almost half a year, the research team feels informed enough to make a recommendation on which oversight mechanism would serve the school and its partners best. It is not a recommendation that the team takes lightly since this is an aspect of the initiative that will have a major impact on its ultimate success, with growing interest in the topic on campus, and across the nation. What the team learned over the course of the project is that Hampshire is well positioned to institute a Participatory Guarantee System (PGS) to ensure the effectiveness of our local food purchasing approach. The PGS offers an alternative to accounting systems that rely almost exclusively on third party certifications, and represents an approach especially adapted to local markets and short supply chains. This is not to say other systems could not be implemented along side a PGS at Hampshire, but rather that the PGS offers the most pragmatic auditing technique for an institution with the characteristics of Hampshire. The two approaches discussed in this section are the PGS and the Real Food Challenge's Real Food Calculator, again not because they are the only potential approaches but rather that there has been community interest in both. Having completed months of careful research and after having conducted a food purchasing audit for fiscal year 2015 purchases, the end result of this project is to pursue a PGS while leaving the door open to the RFC if the community, as a whole, feels the college should partner with the program.

To arrive at the point of being able to make a recommendation a significant amount of work has been invested by the research team—the research team reviewed many pieces of scholarly literature pertaining to farm to school programs, the design of sustainable food purchasing guides, and third party certifications; the team met with interested students—listening to their concerns and recommendations; the team has also begun on-going dialogues with dining services on campus and BAMCO's regional representative in order to determine how our foodservice provider fits into the initiative; hours were invested in completing a

baseline survey for fiscal year 2015 food purchases; and a few days were spent in the field, speaking with local producers in order to gain their perspective on the topic. Indeed, this process has been ongoing and highly involved because it needs to be—food systems are complex, and local food systems have their own unique aspects based on their locality. Upon completing aforementioned work, the project reached a point where the team is confident in their ability to recommend the best approach to overseeing where Hampshire’s local food dollars are going.

The Recommended Method

The evaluation technique being proposed is a participatory guarantee system to be refined by the school and aligned with the 100% Local Food Challenge. Had the institution under review not been Hampshire, there would most likely be a much different answer to the question of which oversight program will be most effective. Hampshire College places an emphasis on critical engagement with complex issues and strives to go beneath the surface of a given topic. Further, we have a wealth of assets in the form of dedicated and knowledgeable students, faculty, and staff—along with being located in a region that is a hotbed for local agriculture. In light of the above, we can successfully implement a Participatory Guarantee System based accounting system for the 100% local food initiative. The PGS is by no means the easiest method of evaluating our local food initiative, but it will provide the school with the best possible means of instituting action that aligns best with our core principles, while also making room for tailored community engagement with the issue.

So what is a PGS?

A Participatory Guarantee System is not a new concept. The term came about recently as a direct response to what some view as the Organic industry’s over reliance on third-party certifications. The International Federation of Organic Agriculture Movements (IFOAM) is one of the main champions of PGSs, and advocates that the approach is not in direct competition with certifications, rather it can serve to be complimentary. PGSs offer a low-cost and community based approach to ensuring the quality of goods produced in close proximity to the consumption point. With PGSs there is a focus and reliance on the engagement of consumers and other stakeholders in the initial design of the system and with its ongoing implementation. In other words, with a PGS producers, consumers, retailers and others will work together in order define the goals of the program and then cooperate to enact proper oversight and enforcement; this includes stakeholder meetings to define and refine policies, along with the active review of operations in order to confirm their compliance.

A PGS will consist of standards and norms established by the community, procedures to ensure compliance, pledges for developing the program, and consequences for non-compliance. Some of these facets are well defined by the Sustainable Food Purchasing Guide and for the current Local Foods Initiative, while

others will need to be established as the process unfolds. Hampshire does however have the necessary resources available to implement such a system; this conclusion is partially based on the fact that over the course of this project the team has already operated a basic model of a PGS.

Benefits of the PGS-type Approach

Participatory Guarantee Systems afford communities the opportunity to define their own specific standards, ensure the active engagement by stakeholders, and even experiment with new approaches that may provide benefits beyond the PGS itself.

Hampshire's Sustainable Food Purchasing Guidelines outline the college's reluctance to rely solely on third party certifications due to their costs and sometimes misleading nature, among other reasons. This is not to say the school does not value certifications to some degree, but rather is an acknowledgement of their limitations and outlines the institutions desire to enact complimentary approaches.

A PGS for the 100% Local Food Initiative would most likely incorporate some information from certifications when available, but it would go above and beyond by providing a framework for stakeholders to access purchasing records and go out into the field in order to confirm the progress of the initiative. This allows us to evaluate ourselves based on our own principles, and not those outlined by organizations operating at the regional or national level. A key component of this will be the continued involvement of the community in refining the priorities and principles of the local food initiative.

Broader impacts of a PGS include the ability for students and faculty to gain experience engaging with issues of local food system. Over the course of the project, the Kendall Interns found the position to be highly educational, providing opportunities that they most likely would not have had access to otherwise. This ties in with course and independent work ranging from the life sciences, to economics, and social entrepreneurship. In fact, there is already a course designed to build off of the progress of the 100% Local Challenge and the foundational work outlined in this document. Furthermore, as an independent institution, Hampshire has the opportunity to experiment with its oversight mechanisms and potentially inform the refinement of other programs, such as the Real Food Challenge, or other independent PGSs.

Reasons for not recommending the RFC at this time:

The RFC is a great program that has worked well for many colleges and universities across the nation that are aiming to shift their food purchasing dollars towards more sustainable options. It was designed to help a wide variety of institutions of higher education in their efforts to develop a well functioning 'real food' purchasing program with proper oversight. Further, it is part of a national movement among students and other stakeholders of these institutions, demonstrating solidarity with the approach of the RFC—in this sense there is a

political aspect of the RFC as well. The research team concluded although there are benefits for the RFC, there are many aspects that are not ideal for the specific purpose of providing tailored support for the 100% Local Food Challenge.

Evaluating the RFC for the purpose of this project required focusing on the local and community based components of the program, although we reviewed all aspects of the RFC and its criteria for “real food”. There was considerable overlap between the criteria of the RFC’s Calculator Program and Hampshire’s Sustainable Food Purchasing Guide. Many of the general principles and accepted third party certifications are the same in the two guides. While there are similarities, the manner in which the HC guide addresses compliance allows for a more nuanced approach and better reflects our institutional values. For instance, we recognize that certifications may not be a reasonable method for ensuring compliance with many of our suppliers due to the cost involved, instead we make an effort to work closely with the farmers and the farming community in order to maintain compliance with our purchasing principles (a prime example is the Hampshire College Farm which operates according to organic principles but is not certified organic partially due to the cost and labor requirements).

Both the RFC and the HC Sustainable Food Purchasing Guide use similar distinctions for “local food”, but the RFC does not specifically focus on local food procurement issue. For instance, a food item could be defined as ‘real’ either by virtue of its localness, or because its producer holds certain certifications—the way in which the RFC currently displays information on an institution’s public report page *does not mention the percentage of local food purchased by a school*. It may be worthwhile to investigate the RFC for more auditing purposes in the future. It was ultimately determined that the RFC, in the context of Hampshire’s Local Food Initiative, does not offer significantly improved accounting and auditing methods than those we can implement with a PGS.

After speaking with concerned stakeholders, mainly students, it could be seen that transparency was a major motivating factor in advocating for Hampshire signing the RFC’s campus commitment. This a legitimate concern, and the RFC does have provisions that outline a framework for campus food system transparency. However, after working with the dining commons and the administration it was determined that we are capable of instituting transparency measures of our own, and that the initiative is strongly in support of making as much purchasing information as public as possible. Our team was able to review a year’s worth of purchasing records for HC dining services, reviewing hundreds of pages of internal documentation in order to do so; the results of this audit are publically available in this report. Going forward, we will be working to implement more official structures for ensuring transparency throughout our food purchasing process.

Another attraction of the RFC is the political aspect of the initiative. This can be a major motivator for interested campuses with the RFC offering the chance to participate in a large, nation-wide movement. It was not the purpose of this project to determine whether or not the school should support the political message of the RFC—although it can be said that Hampshire is an institution that is perfectly capable of participating in discussions of national food systems without relying on another party’s platform; this is an issue for broader community discussion.

It is vitally important to clarify that this report is not advocating for or against the implementation of the RFC at Hampshire for general purposes of tracking sustainable food purchasing and aligning with national initiatives. Rather, for the accounting and auditing purposes of the 100% local food initiative the RFC does not offer significant benefits, and may have unforeseen impacts on our ability to direct our purchases—this topic will require further investigation and discussion by the community. It is not the place of this report to advocate for the political aspects of the RFC, and the Hampshire College Community as a whole may decide that the school should support the RFC and its specific brand of food systems advocacy.

Where We Stand Today

Hampshire is actually well positioned to implement a PGS for food initiatives on campus. We have already implemented a basic version of the PGS during the project that is culminating in this report. Some of the standards and norms needed for a PGS have already been established by our Sustainable Food Purchasing Guide, although more community dialogues will be necessary. We have seen the engagement of the students, staff, local farms, and dining services that would participate in the program.

This is not to say more work will not be required, but rather we are currently at an excellent starting point to have a PGS up and running within a short period of time. We have refined our approach to cooperating with the dining commons, drafted formats for reporting the exact dollar amounts of food purchases from local farms, and draft questions and protocols for interviewing local farms.

Summary of Key Components of a PGS for the Local Food Challenge (and what is currently in place):

- **Agreed upon standards and norms:** these are currently outlined by the HC Sustainable food-purchasing guide and the language of the 100% Local Food Challenge.
- **Methods for auditing purchasing records:** during the research project the Kendall interns worked on establishing and refining this process. We began by manually reviewing the dining commons' records in the following formats:
 - Purchasing card statements (i.e. corporate credit card)
 - Petty cash logs (used for incidental expense and vendors who only accept cash)
 - Official records of the BAMCO Farm to Fork program*After completing this process, the college's food service provider (BAMCO) has agreed to implement a more seamless and transparent reporting process—one where monthly reports on local food purchases are more easily generated and accessed by auditors.*

- **Established channels to engage with all stakeholders, including but not limited to:**
 - **Producers:** we have developed farm visit and farmer interview methodologies
 - **Dining Commons:** the DC has worked closely with the research team; between our team's work and existing practices at BAMCO, this relationship has been relatively easy to foster.
 - **Students, Faculty, and Staff:** the research team has engaged with a core set of dedicated students who have taken interest in the status of food on campus, and the 100% Local Food Challenge. Prior meetings on the status of food on campus have experienced issues with lack of participation, and this will need to be addressed.
- **Transparency and accountability to the community:** this is currently taking place in the form of this report. Preferably more direct manners of distributing the results of audits will be established (this is partially dependent on broad student interest).
- **Engaged participants:** a key component of a PGS is the engagement of participants; at a bare-minimum, selected parties representing the interests of Hampshire can fill this role (such as those that comprised the research team for this project). Ideally, a PGS will spur the involvement of a broad set of stakeholders beyond those directly involved in the program.

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Appendix A—Farmer Interview Questions

Vegetable Specific Questions:

- What steps do you take to ensure that your work environment is safe for all of your employees?
- What types of pesticides/pest management techniques do you use and how do you use them?
 - Do you use conventional pesticides? IPM practices?
- What types of fertilizer/ cover crops do you use and how do you use them? Do you get your soil tested, and if so, how often?
- How do you till your soil? What implements are used/ how often is it tilled before planting?
- How many different crops/crop varieties do you grow?
- Do you rotate your crops? Are the rotations planned to compliment pest and fertility management?
- Do you have a CSA program/sell at farmers markets? Do you sell to any large institutions?
- What have your past experiences been like with regards to working with Bon Appétit?
- Do you have any certifications? i.e. USDA certified organic, Food Alliance Certified, Fair Trade, etc.

Livestock Specific Questions

- General
 - Are you a participant in the BAMCO F2F program?
 - What certifications does your farm hold?
 - Animal welfare approved—animal welfare institute
 - Biodynamic certified—by Demeter
 - Global animal partnership (5 step program)
 - Certified humane—by farm animal farm care
 - Food alliance certified
 - USDA Organic
 - Other humane distinctions:
 - Grassfed, gestation create free, free range, free roaming, rBGH/rBST free
 - How much access does animal X have to open space/fresh pasture throughout the year?
 - What is your general approach to monitoring animal health and well-being?

Appendix A—Farmer Interview Questions

- Grassland/Pasture Management
 - Do you apply soil amendments to pasture?
 - If so, what kind
 - Do you periodically test soils to adjust amendment procedures
 - Nutrient Management Plan?
 - Use of leguminous crops
 - Vegetative filter strips?
 - Pasture fencing/size of grazing areas/management intensity

- Waste Management
 - What is your waste procedure/how do you deal with manure
 - Litter stacking sheds
 - Heavy use area protection—for preventing soil runoff, manure runoff.

- Water Issues
 - Riparian buffers
 - Stream Fencing—Efforts to keep animals out of riparian zones or flooded fields
 - Stream crossings
 - Farm Ponds—to capture sediments and pollutants

- Awareness of Funding and other Assistance (may speak to the level of competency of the operation, along with those participating in such programs generally being able to integrate more BMPs)
 - Cost sharing through USDA/NRCS
 - Improvement grants
 - Technical assistance
 - Federal Indemnity programs

- Welfare:
 - What is your pharmaceutical and hormone usage policy?
 - How do you maintain the five freedoms
 - Freedom from thirst, hunger and malnutrition
 - Freedom from discomfort
 - Freedom from pain, injury and disease
 - Freedom from fear
 - Freedom to engage in relatively normal patterns of animal behavior

Appendix B—Farmer Interviews

Austin Brothers Valley Farm

Distance from Hampshire College: 13 miles

Goods Purchased from Farm:

- Hamburger
- Steamship Round Roast
- Whole animals from local abattoir (to be butchered in the Dining Commons)

General Notes

Austin Brothers Valley Farm raises local beef cattle in a pasture based management system, and supplies meat to restaurants, speciality meat shops, and Hampshire College, among others (with Hampshire currently being the farm's only higher education customer). The farm has been in the Austin family for over 130 years, and until recently operated as a dairy. In 2006, the farm shifted away from dairy in light of challenging economic factors, and an inability to achieve the small farm's desired balance of practicing sustainable methods while also maintaining profitability. The farm went from a herd of roughly 45 to the current 75 head operation during the transition to beef production.

The current herd is composed primarily of Hereford-Angus crosses, but other breeds are in the mix as well, along with a couple of Oxen bred for show purposes. Michael, the farm's proprietor, takes an active role in the breeding selection of cattle, and has breeds roughly 25 head for his herd annually--the remainder are bought from partner farms.

All of the farm's cuts are USDA inspected and dry aged, with the farm processing most of its meat at a local abattoirs.

Welfare

At the farm, cattle on pasture-fed regimens have free access to grass, well established shelter areas, and fresh water at all times. Handling of the cows for vetcare or other needs is done with a specialty handling shoot that is design to reduce animal stress and minimize danger for workers and animals. Depending on the life stage of the animal and the time of season, the cattle may be feed a mix of fresh grass, hay, corn, or grain—with the farm growing its own hay and corn.

Sustainability

The farm employs strategies such the use of “sacrifice areas” (sections of paddocks designed for heavy use) and proper manure handling procedures in order to minimize the impact of the farm on the environment. Pasture management is a concern, and the farm has experimented with various approaches--such as management intensive grazing—in order to find the right regimen

Appendix B—Farmer Interviews

for the farm. The farm is investigating options to increase their ability section off portions of pasture, such as installing a more complex watering system to allow for smaller paddocks where the animals would be moved more frequently.

Mapleline Dairy

Distance from Hampshire: 7.5 miles

Goods purchases from farm:

- Whole Milk
- Skim Milk
- Flavored Milks (high fructose corn syrup free)
 - Chocolate
 - Strawberry
 - Coffee

General Notes

Mapleline farm has been operated by the same family for over 110 years, although the name and crops produced have changed with the times. Originally a vegetable and tobacco farm, the farm started its dairy operation in 1950. The farm's current proprietor, John Kokowski, transitioned the farm to an exclusively dairy operation by the mid 1990s. With national milk prices sliding and the local food movement starting to take root, John saw an opportunity to refocus on local distribution in the 1990s. For this, he reintroduced glass bottles and cultivated diverse local marketing channels--just two years ago all of the Mapleline's milk was marketed within 20 miles, but the word has gotten out, and now the milk makes it as far as Boston.

The farm sells milk to a variety of customers, including UMass Amherst and Berkshire Community College. All the processing of the milk is done on site, and during the *slow* time of year, the farm processes roughly 50,000 lbs. of milk per week. Mapleline milk has been increasingly marketed through higher-end outlets, thanks in part to the milk's higher than average fat content. The fat is present due to the fact that all of the farm's 250 head of cattle are Jerseys, a breed known for high fat-content milk. The genetics of the Mapleline herd are so good that he often sells cattle to other farms looking to bolster their Jersey herds.

Animal Welfare

Cows are kept in a modern, well ventilated, and clean free-stall barn with adequate access to fresh water and feed. The herd is fed a total mixed ration consisting of corn, grass silage, and roasted soybean meal. The farm does not use any growth hormones such as rBST. While the farm does not hold animal welfare certifications, John remarks that he does not feel the need to certify in light of the fact that it is in the farm's best interest to ensure the animal's wellbeing at

Appendix B—Farmer Interviews

all times—the cows represent the family’s livelihood and have what are considered to be high end genetics—so there are both ethical and economic incentives to maintain welfare. In addition, the farm has frequent visitors such as our interview team or classes from UMass Amherst’s Stockbridge School of Agriculture, providing very public view of the cows welfare.

Sustainability

Feed corn is grown on-farm, and Mapleline has been transitioning towards GMO-free varieties with much success. All fields are soil tested and have nutrient management plans developed in partnership with Natural Resource Conservation Service--this provides a management approach that optimizes the use of inputs, and reduces leaching from unnecessary fertilizer applications. Manure is managed in a modern waste system, and the farm provides manure to neighboring farms free of charge. Mapleline also partners with neighboring vegetable farms to rotate crops through their fields, with squash and other vegetables sometimes taking the place of corn and vice-versa. Additionally, the farm has transitioned over to zone-tillage for their field management--a technique that limits tillage to the planted rows of a field, leaving the room in between minimally disturbed, reducing runoff and other issues associated with intensive tillage.

Simple Gifts Farm *Baystate Organic Certified/ USDA Certified Organic*

Distance from Hampshire College: 6 miles

Items Purchased from the Farm:

- Potatoes
- Carrots
- Turnips
- Parsnips
- Squash

General Notes

Simple Gifts, located in North Amherst, is a 32 acre Baystate Organic Certified farm run by Jeremy Barker Plotkin and Dave Tepfer. One of many unique aspects of this farm is that it operates on a land trust that is specifically preserved for sustainable farming. Simple Gifts provides the community with a variety of organic produce through CSA shares, local farmers markets, a farm stand, and through some wholesale.

Appendix B—Farmer Interviews

Sustainability

In order to ensure that the land is being preserved and kept healthy, Simple Gifts employs several techniques. Only organic pesticides are used when necessary in conjunction with integrated pest management methods. In order to maintain soil fertility, cover crops and animals are rotated through the fields. Organic fertilizers are applied responsibly to crops in either a dry form or as a liquid fed through the drip tape. Soil tests are also frequently taken so that the farmers are able to monitor what nutrients each field needs.

Real Food Challenge

The produce from this farm would be considered Real Food A for being Local & Community Based and Ecologically Sound.

Book and Plow Farm *Sustainably Managed Educational Farm at Amherst College*

Distance From Hampshire College: 3 miles

Items Purchased from the Farm:

- Potatoes
- Beans
- Cabbage
- Lettuce
- Parsnips
- Turnips
- Carrots
- Cauliflower

General Notes

Since the fall of 2012, Book and Plow has been providing Amherst College with sustainably grown produce, educational opportunities, and a place to build community. This farm is managed by Tobin Porter-Brown and Peter McLean. Book and Plow not only provides produce to Amherst College, but also to other dining halls, restaurants, and to the larger community through CSA shares. While this farm is a production farm, it is also an education farm and an integral part of the Amherst College community.

Sustainability

Appendix B—Farmer Interviews

Since Pete and Tobin have only been working with the 30 acres of land for 3 years, they are trying to bring the soil to optimal health in order to keep their operation sustainable. Row covers, organic sprays, and a crop rotation schedule are used to manage pests. Soil fertility is maintained by crop rotations, cover crops, and organic compost fertilizer top dresses and side dresses. This year, they are growing 15 acres of vegetables, 8 acres of fallow land, and 7 acres of cover crops.

Queen's Greens *Sustainably Managed Wholesale Growers*

Distance from Hampshire College: 8 miles

Items Purchased from the Farm:

- Mixed greens
- Spinach
- Kale
- Beets
- Collards
- Leeks
- Tomatoes
- Peppers
- Cabbage

General Notes

Queen's Greens is a sustainably managed farm run by Danya Teitelbaum and Matthew Biskup in its 7th year growing greens and its 3rd year growing a variety of different vegetables. Their market is almost all wholesale, selling to 4 small distributors and directly to restaurants and dining halls as well as a few local farmers markets. Along with mainly selling their produce wholesale, this farm is also unique because they have several large high tunnels on their farm, so they are able to grow produce year-round.

Sustainability

The farmers at Queen's Greens are committed to growing sustainably and are very knowledgeable about the pros and cons of being a farm that follows organic practices but is not certified. To maintain soil health, they rotate their crops seasonally test the soil regularly. To control pests, they use plastic covers, flaming techniques, remay, and spray certified organic sprays only when needed. Also, since many of their crops are grown in high tunnels, they have to use less or no sprays, especially on the tomatoes, which when grown in the field would normally be sprayed with copper to prevent late blight. This farm also uses local fertilizer from

Appendix B—Farmer Interviews

neighboring Mapleline Farm to provide the soil with organic matter and replenish depleted nutrients.

Apex Orchard *Producing Fruit for the Local Community Since 1828*

Distance from Hampshire College: 27 miles

Items Purchased from the Farm:

- Several apple varieties
- Apple Cider

General Notes

Apex Orchards is a nearly 200-year old family farm providing apples, peaches, nectarines, apricots, plums, pears, grapes, and blueberries to the local community. Apex sells their fruit at farmers markets, to other farm's CSA programs, and to wholesale buyers. They also have a pick your own field where customers can go and enjoy fresh fruit as well as a beautiful mountaintop view. Even though this farming family has many years of growing under their belts, the orchard is continuing to evolve, notably with a new farm store in the works and new pick your own locations.

Sustainability

It is difficult to grow fruit organically, but the farmers at Apex Orchard are committed to sustainability. They employ Integrated Pest Management (IPM) techniques and spray infrequently at the recommendation of a professional consultant. They have several beehives on site to provide sanctuary for declining bee populations and to encourage the symbiotic relationship between the honeybees and the fruit flowers. The farmers also frequently get their soils tested and the trees tissues analyzed to ensure that both are healthy. Finally, although there are several different types of fruit grown on this orchard, there are also several different varieties of each type of fruit grown to increase diversity.

Red Fire Farm *Large Scale Certified Organic Farming Feeding all of Massachusetts*

Distance from Hampshire College: Granby Location- 9 miles

Montague Location- 17 miles

Items Purchased from the Farm:

- Brussels sprouts
- Carrots

Appendix B—Farmer Interviews

- Shallots
- Sweet potatoes
- Turnips
- Winter squash
- Celeriac
- Onions
- Parsnips
- Artichoke
- Cabbage
- Beets

General Notes

Red Fire Farm is a 180 acre farm with land in both Granby and Montague. They have been certified organic since 1995, making them one of the first farms in the area to sign on to the USDA certified organic program. They grow a very large variety of vegetables, herbs, flowers, and fruits, all of which are certified organic, except for the fruit. Their produce can be found all over the state of Massachusetts and can be purchased through CSA shares, farmers markets, farm stands, and wholesale. Not many farms are able to grow produce on the scale that this farm does while still maintaining such a high quality, but Red Fire is a testament to the fact that it can be done.

Sustainability

Along with being USDA Certified Organic and adhering to the guidelines set up by that program, Red Fire Farm has some other unique sustainability initiatives that they have integrated into their farm. For example, geothermal cooling systems are used for storing their produce instead of conventional fossil fuel dependant cooling systems. Their crops are rotated based on principles such as not planting crops from the same family in a field for at least four years, planting weed sensitive crops in areas where weed pressures are expected to be low, and planting based on irrigation logistics. To control pests, the farm uses row covers and organic sprays and to keep soil healthy, they use organic fertilizer.

Appendix B—Farmer Interviews

Hampshire College Farm *Sustainably Managed Educational Farm at Hampshire College*

Items Purchased from the Farm:

- Eggs
- Meat
- Tomatoes
- Maple syrup
- 75 CSA shares (includes: Beets, Broccoli, Cabbage, Cauliflower, Celeriac, Collards, Edamame, Eggplant, Garlic, Herbs, Kale, Kohlrabi, Leeks, Mustards, Greens, Onions, Hot Peppers, Sweet Peppers, Popcorn, Pumpkins, Rutabaga, Radishes, Salad Mix, Spinach, Swiss Chard, Sweet Potatoes, Tomatoes, Turnips, Winter Squash)
-

General Notes

The Hampshire College Farm was created in the 1970's and has been evolving ever since. Hampshire provides a unique farm opportunity to its students by having both a livestock operation and a vegetable production operation. The farm provides produce, meat, dairy, eggs, and maple syrup to Bon Appetit, the dining provider on campus. The farm also engages with the local community by offering meat and produce shares. The farm is an important part of the campus community since it provides a place of learning and inspiration for students in all concentrations.

Sustainability

The Hampshire College Farm is dedicated to sustainable practices. Soil fertility is maintained by testing soil frequently, using organic compost and manure, cover cropping and intercropping with clover, and rotating crops every year. Organic pesticides are used when necessary. The livestock and vegetable production parts also work together to reduce waste and maximize resources. For example, unusable vegetables are given to the animals, and the animals are rotated through some of the fields in order to provide extra nutrients.

Appendix C—HC’s Sustainable Food Purchasing Guide Priorities and Vendor Status

Table 1: Hampshire Sustainable Food Purchasing Guide priorities for livestock operations; vendor name indicates status.

Beef and Dairy Products <i>(Farm Name indicates status)</i>		Best Choice	<----->	Avoid
Local		Hampshire Farm	Within 150 mi., Northeast, U.S. <i>(Austin Brothers Valley Farm, Mapleline Dairy)</i>	Global
Farming Practices:				
	<i>Feed</i>	AGA grass-fed certified: Pasture in summer, hay and silage in winter; certified organic grain	USDA-certified grass-fed or pasture in summer; conventional grain in winter. <i>(Austin Brothers Valley Farm)</i>	Conventional grain feed (may contain animal by-products) <i>(Mapleline Dairy)</i>
	<i>Antimicrobial Use</i>	No sub-therapeutic use, USDA withdrawal period followed when therapeutic use is needed. <i>(Austin Brothers Valley Farm, Mapleline Dairy)</i>		Routine sub-therapeutic use for increased growth
	<i>Hormone Use</i>	No hormone growth-promoter use. <i>(Austin Brothers Valley Farm, Mapleline Dairy)</i>		Routine use of hormone growth-promoters
Humane Treatment		Pastured during growing season. <i>(Austin Brothers Valley Farm)</i>	Kept indoors in space meeting AHC or CHRH minimum requirements <i>(Mapleline Dairy)</i>	Confined to feed lot (AFO or CAFO)

Appendix C—HC’s Sustainable Food Purchasing Guide Priorities and Vendor Status

Table 2: Hampshire’s Sustainable Food Purchasing Guide priorities for fruit and vegetable operations; farm name indicates status.

	Best Choice	<----->	Avoid
Local, seasonal	Hampshire Farm, in season		Imported and out of season
Farming Practices (Farm Name indicates status)			
<i>Pest management</i>	No conventional pesticides <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>	IPM <i>(Apex Orchard)</i>	Conventional pesticides only
<i>Fertility management</i>	Combinations of compost, manure, N-fixing cover crops; organic fertilizers <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>	Judicious use of NPK fertilizers <i>(Apex Orchard)</i>	Conventional fertilizers
<i>Crop rotation</i>	Nutrient budget based on soil testing <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>	Some soil testing <i>(Apex Orchard)</i>	Fertilize regardless of soil tests
<i>Soil conservation</i>	Plans rotation to complement pest and fertility management <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>	Some conservation cropping <i>(Apex Orchard)</i>	Monocropping
	Cover crops in winter <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>	<i>(Apex Orchard)</i>	Bare soil in winter
	Wind breaks, conservation buffers <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>		
	Conservation tillage <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Apex Orchard, Red Fire Farm, Hampshire College Farm)</i>		Mold-board plow tillage, extensive tillage
Pesticide Residue	Organic or IPM <i>(Simple Gifts Farm, Book and Plow, Queen’s Greens, Red Fire Farm, Hampshire College Farm)</i>	Conventional, low-residue food <i>(Apex Orchard)</i>	Conventional, high-residue food

Appendix D—BAMCO Farm to Fork Program and Supplier Status

Table 3: Overview of BAMCO's Farm to Fork Program; farm name indicates status within program.

Size/Type of farm	Ownership	Distance from Bon Appétit kitchen	Annual sales volume	Certification	Status of Farms Supplying to Hampshire
<i>Small farms, orchards, mills growing plant-based products</i>	Owner-operated	150 miles or less	\$5 million or less	None	Simple Gifts Farm, Book and Plow Farm, Queens Greens, Apex Orchard, Red Fire Farm, Hampshire College Farm
<i>Small producers of meat, poultry and eggs, dairy and cheese</i>	Owner-operated	150 miles or less	\$5 million or less	None	Mapeline Dairy, Austin Brothers Valley Farm, Hampshire College Farm
<i>Small artisan producers of items such as baked goods, ice cream or gelato</i>	Owner-operated	Production within 150 miles; at least 50% of product, by weight, sourced from within 150 miles. ⁵	\$5 million or less	None	
<i>Mid-size producers of meat, poultry and eggs, dairy and cheese</i>	Owner-operated	500 miles or less	Less than 1% of industry leaders' sales volume for each species cultivated ⁷	Stringent third-party humane certifications required	

Appendix E—Real Food Calculator Evaluation of Vendors

Table 4: Status of Hampshire’s Suppliers according to Real Food Challenge’s Real Food Guide (Version 1.0).

Farm Name	Status	Notes
Austin Brothers	Real Food B	Local & Community Based
Mapleline Dairy	Real Food B	Local & Community Based
Simple Gifts Farm	Real Food A	LCB and Ecologically Sound
Book and Plow	Real Food B	Local & Community Based
Queen’s Greens	Real Food B	Local & Community Based
Apex Orchards	Real Food B	Local & Community Based
Red Fire Farm	Real Food A	LCB and Ecologically Sound
Hampshire College Farm	Real Food A	LCB/On-campus Farm

Appendix F—Audit Results

Table 5: Below the results of the first round of auditing are presented. In the following table, our current local food suppliers are listed along with the respective purchasing levels.

Food Purchases by Vendor	~
Local Farm/Business	Total Purchases (USD)
Edo	\$85,021.92
Hampshire	\$45,623.80
Mapleline	\$22,974.00
Pierce Bros Coffee	\$22,943.67
Austin	\$20,706.13
Horse listener	\$13,992.00
Book & Plow	\$9,428.50
High lawn	\$7,515.90
Herrells	\$5,755.78
Apex	\$5,499.00
Red Fire	\$5,144.00
Queens Greens	\$4,996.00
Simple Gifts	\$3,120.00
Lukasik Farm	\$2,244.27
Manda Farm	\$1,467.00
Shayna B's	\$1,089.07
Four Star	\$761.25
Mazae	\$684.00
Mount Warner Vineyard	\$504.00
Adam's	\$474.00
Grady Oats	\$177.90
Poets Seat	\$160.00
Earth's Harvest	\$42.00
Flavors	\$21.81
[To be audited (TBA)]**	\$30,258.00
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Total (without TBA info.)	\$260,346.00
Total (with TBA info.)	\$290,604.00

**see note in subsection “Financial Analysis” for full explanation.

Appendix F—Audit Results

Table 6: In the table below purchases are categorized based on general food types, and listed according to the purchasing amounts respective to each supplier

Produce Purchases	
Hampshire	\$26,935.30
Horse Listener	\$13,992.00
Book & Plow	\$9,428.50
Apex Orchard	\$5,499.00
Red Fire	\$5,144.00
Queens Greens	\$4,996.00
Simple Gifts	\$3,120.00
Poets Seat	\$160.00
Total Produce	\$69,274.80
Meat Purchases	
Austin	\$20,706.13
Hampshire	\$18,688.50
Lukasik Farm	\$2,244.27
Manda Farm	\$1,467.00
Adam's	\$474.00
Total Meat	\$43,579.90
Dairy Purchases	
Mapleline	\$22,974.00
High Lawn	\$7,515.90
Herrells	\$5,755.78
Flavors	\$21.81
Total Dairy	\$36,267.49
Other	
Edo	\$85,021.92
Pierce Bros Coffee	\$22,943.67
Four Star	\$761.25
Mazae	\$684.00
Mount Warner Vineyard	\$504.00
Shayna B's	\$1,089.07
Grady Oats	\$177.90
Earths Harvest	\$42.00
<i>[To be audited]</i>	<i>\$30,258.00</i>
Total Other	\$141,481.81

Appendix G—Purchasing Guide Interactions

Table 7: Report on the overlap between BAMCO and RFC Guidelines provided by BAMCO; the Hampshire section was generated by the research team, from the 2013 Sustainable Food Purchasing Guide

General Description	BAMCO	Relevance to Real Food Calc.	Hampshire College
<p><i>Local and Small Scale Production Systems</i></p>	<p>Farm to Fork program. Small, local farmers and artisans that meet the following requirements: less than \$5 million in revenue annually, within 150 miles of the café, and owner operated.</p>	<p>Our chefs are tasked with spending 20% of their food dollars on Farm to Fork (F2F) vendors annually. Purchases from F2F vendors for non-processed food items such as fruit, vegetables and meat, are Real Food under "Local." If you're using the online tool, they would be "small, owner-operated within 150 miles." For processed food items, you'll have to do more research. Some typical items you'll see: locally roasted coffee (will often count as Fair or Ecologically Sound, if not Local), and artisan bakers, who are required to source 50% of their ingredients locally. Campus farms or gardens: produce grown in farm/garden at the institution, in which the research can confirm the use of organic practices, counts as Real Food.</p>	<p>Hampshire College</p> <ul style="list-style-type: none"> Hampshire's sustainable food purchasing guide evaluates local food on a sliding scale that prioritizes the HC Farm Center, followed closely by local farmers. The guide also accounts for the fact that not all goods can reasonably be produced locally, and thusly makes room for identifying reasonable sourcing distances. HC guide employs a more fluid manner of evaluating local foods, with rule of thumb distinctions being made as follows: HC Farm > Within 150 mi of HC > Northeast U.S. > U.S. > Global. Hampshire does not make distinctions based on farm income, unlike BA's F2F program and the RFC guidelines.

Appendix G—Purchasing Guide Interactions

Table 7: Report on the overlap between BAMCO and RFC Guidelines provided by BAMCO; the Hampshire section was generated by the research team, from the 2013 Sustainable Food Purchasing Guide

General Description	BAMCO	Relevance to Real Food Calc.	Hampshire College
<i>Regional Producers and Animal Welfare</i>	Mid-tier Farm to Fork. Program that supports mid-sized animal farms that are located regionally and use humane practices. They must be owner operated, within 500 miles of a cafe, have annual revenue for that item of less than 1% of the industry leader, and be certified by one of the following organizations: Certified Humane by Humane Farm Animal Care, Animal Welfare Approved, Food Alliance or Global Animal Partnership.	All products purchased from a mid-tier Farm to Fork vendor are Real Food under “Humane” with one exception. One of the certifications, Global Animal Partnership, is a 5 step program. Farms that are at stages 3, 4, or 5 qualify as Real Food, but those at 1 or 2 do not. If within 250 miles of the cafe, these purchases may also count as “Local.”	<ul style="list-style-type: none"> • <i>see above for policies surrounding local and regional purchases</i> • Hampshire’s sustainable food purchasing guideline recognizes the importance of Small and Medium farms in rural communities, and the impact our food purchases can have on ensuring the economic viability of rural areas. Our belief in these benefits is both social and environmental, with small farms providing “more diversity, [both] biological and cultural”. • <i>For humane livestock certifications, see below.</i>
<i>Humane Treatment Livestock – Eggs</i>	All shell eggs are cage-free and certified by one of the following organizations: Certified Humane by Humane Farm Animal Care, Animal Welfare Approved or Food Alliance (Global Animal Partnership does not certify eggs).	All shell eggs certified by one of those organizations are Real Food under “Humane” if you’re using the online tool. If you’re making a spreadsheet, eggs certified by Food Alliance are Humane “Yellow Light” [Real Food B] and eggs certified as Animal Welfare Approved or Certified Humane by Humane Farm Animal Care are Humane “Green Light” [Real Food A].	<ul style="list-style-type: none"> • Priorities for all animal products include evaluating practices surrounding feed, antimicrobial use, hormone use, and humane treatment. • Best choice is free-range or cage-free, with crowded barns and cages being reason to avoid purchasing; debeaking is not an allowed practice. • Certifications for Chickens: American Humane Certified and Certified Humane Raised & Handled

Appendix G—Purchasing Guide Interactions

Table 7: Report on the overlap between BAMCO and RFC Guidelines provided by BAMCO; the Hampshire section was generated by the research team, from the 2013 Sustainable Food Purchasing Guide

General Description	BAMCO	Relevance to Real Food Calc.	Hampshire College
<p><i>Humane Treatment of Livestock – General</i></p>	<p>By the end of 2015, 25% of our meat, poultry and egg purchases will come from farms that are certified as one of the following: Certified Humane by Humane Farm Animal Care, Animal Welfare Approved, Food Alliance or Global Animal Partnership.</p>	<p>In addition to small and mid-sized Farm to Fork vendors, we are phasing in humanely raised animal products nationally and regionally through 2015. All products that meet this commitment are Real Food with one exception. Global Animal Partnership is a 5 step program. Farms that are at stages 3, 4, or 5 qualify as Real Food, but those at 1 or 2 do not. -Phase 1: All of the ground beef at our cafes is Real Food: it is either "Local" from a Farm to Fork vendor, or "Humane" because it is from a farm meeting one of those third party certifications. However, if the ground beef is coming from a farm that is Gap 1 or 2, it will not count as Real Food.</p>	<p>In addition to evaluating practices surrounding feed antimicrobial use, hormone use, and humane treatment—Hampshire's purchasing guide focuses on key factors for certain species, such as short tail-docking for lamb.</p> <ul style="list-style-type: none"> • Full List of Certification Agencies: American Grass-fed Association, American Humane Certified, Bird Friendly, Certified Humane Raised and Handled, Food Alliance Certified, USDA Certified Organic, USDA Verified Grass-fed.

Appendix G—Purchasing Guide Interactions

Table 7: Report on the overlap between BAMCO and RFC Guidelines provided by BAMCO; the Hampshire section was generated by the research team, from the 2013 Sustainable Food Purchasing Guide

General Description	BAMCO	Relevance to Real Food Calc.	Hampshire College
<p><i>Seafood</i></p>	<p>BAMCO Seafood is purchased according to the Monterey Bay Aquarium's Seafood Watch guidelines for sustainability. Our companywide policy is that chefs only purchase species rated as green (best choice) or yellow (good alternative).</p> <p>BAMCO also has a "Fish to Fork" program which guides the company's procurement of seafood. The program defines seafood as "sustainable" if the boat travels less than 100 miles out to sea, distance from dock to cafe is less than 500 miles, and the supplier does not process fish at sea. Preferred species include those "low-on-the-food-chain", those with easily utilized edible portions, and less popular large species (e.g. avoiding tuna due to its popularity and substituting another fish with more stable population levels).</p>	<p>All seafood purchases should be Real Food under "Ecologically Sound." You'll have to do some research to figure out if the seafood is rated as Seafood Watch green or yellow.</p>	<p>Hampshire College</p> <p>Hampshire's guidelines place a priority on both sustainable production practices and sourcing foods low in mercury and PCBs.</p> <ul style="list-style-type: none"> • Certifications Include: Marine Stewardship Council Certified, listed as best choice by Monterey Bay Aquarium Seafood Watch Program. • It is recommended that for species that cannot be either sustainably farmed or fished that purchasing is avoided.

Appendix G—Purchasing Guide Interactions

Table 7: Report on the overlap between BAMCO and RFC Guidelines provided by BAMCO; the Hampshire section was generated by the research team, from the 2013 Sustainable Food Purchasing Guide

General Description	BAMCO	Relevance to Real Food Calc.	Hampshire College
<p><i>Worker Rights and Just Labor Conditions</i></p>	<p>BAMCO Tomatoes from Florida are purchased from growers whose farms have signed a code of conduct with the Coalition of Immokalee Workers (CIW).</p>	<p>Find out where the tomatoes on your campus are coming from. If they are from Florida, they are purchased in accordance with an agreement with the CIW and are Real Food under "Fair". If your campus is east of the Mississippi and local tomatoes aren't available for the time period you are reviewing, they are most likely from Florida.</p>	<p>Hampshire College's guidelines acknowledge both domestic and international labor issues including fair pay, child labor, exploitation of migrant labor, and hazard exposure (e.g. pesticides, etc.) for agricultural workers. Fair treatment of employees should include paying workers a livable wage, providing access to water and toilets, and safe working conditions.</p> <ul style="list-style-type: none"> • Certifications Include: Fair Trade USA, Fair Trade International, and Food Alliance.

Appendix G—Purchasing Guide Interactions

Table 7: Report on the overlap between BAMCO and RFC Guidelines provided by BAMCO; the Hampshire section was generated by the research team, from the 2013 Sustainable Food Purchasing Guide

General Description	BAMCO	Relevance to Real Food Calc.	Hampshire College
<i>Coffee and Tea [and chocolate]</i>	Null	<p>There is no official company policy that will qualify coffee and tea as Real Food, but look closely at coffee and tea Coffee and tea purchases. It is likely that they are Fair Trade, Rainforest Alliance certified, USDA Organic or directly traded through a local roaster.</p>	<p>Although sourcing coffee, chocolate, and tea cannot be sourced locally (besides processing) the guide recognizes that there is still an ability to employ responsible purchasing practices with these items. Here again we seek sustainable and equitable supply chains, largely evaluated by third party certifications.</p> <p>Desirable Certifications: USDA Certified Organic, Food Alliance Certified, Fair Trade International, Fair Trade USA, Bird Friendly (only applies to coffee).</p> <ul style="list-style-type: none"> • Shade-grown coffee is also recommended due to its reduced impacts on rain forest ecosystems; the Smithsonian Migratory Bird Center offers and additional certification for shade grown coffee.

Local Suppliers and Dollar Amount Purchases

Hampshire College Farm Center

Appendix H—

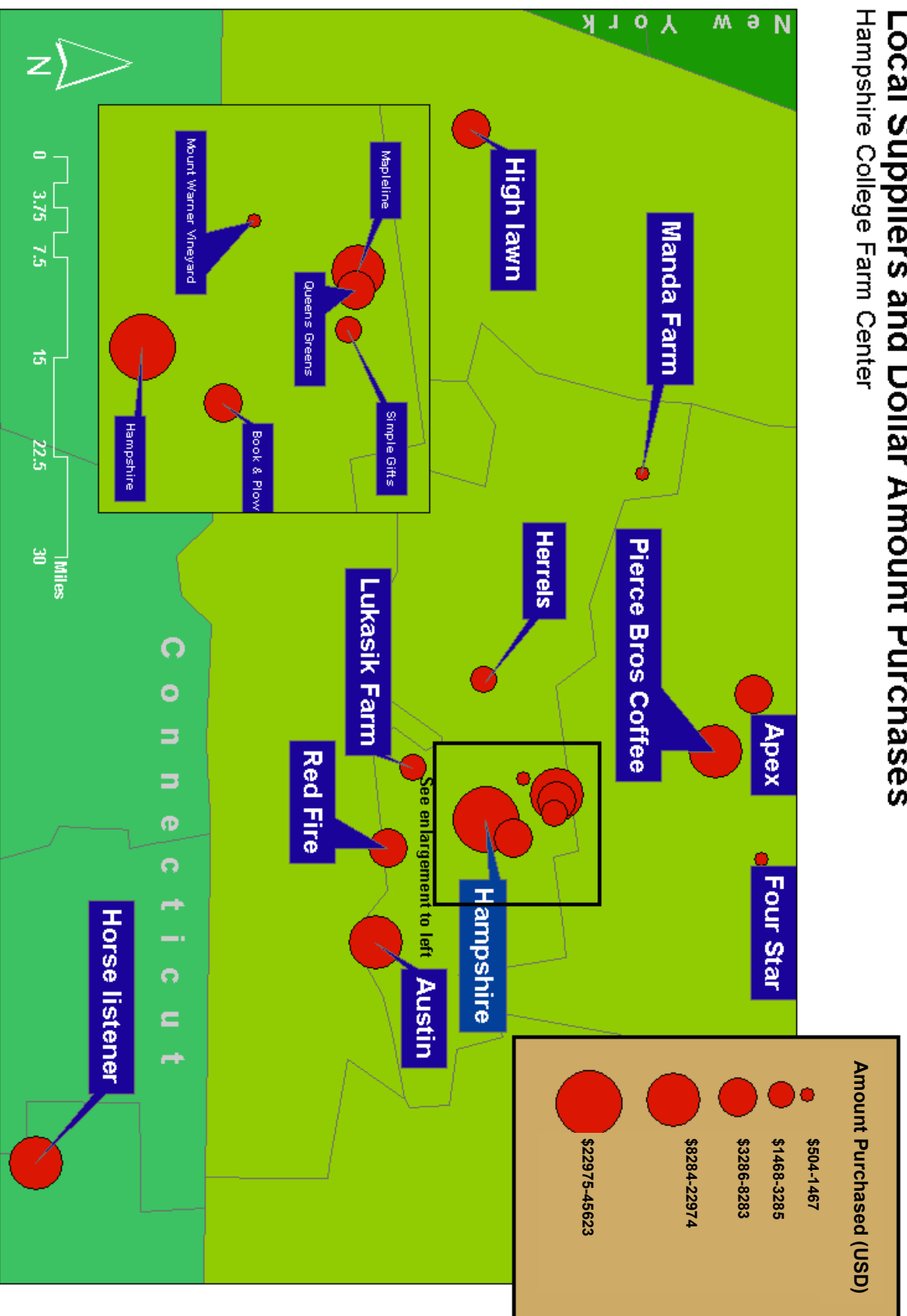


Figure 1 Map of local food suppliers' location and dollar purchase amounts