

Howard County Farmers Association (HCFA) Business Concept

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EXECUTIVE SUMMARY

The Howard County Office of Community Sustainability is seeking food hub-based solutions that connect small and mid-sized farmers in Howard County with restaurants and retailers to expand the market for locally produced agricultural products. Under the supervision of instructor Philip Gottwals, the University of Maryland's PALS-affiliated AREC 489N team studied successes and failures of organizations that have undertaken similar projects to determine the most appropriate and feasible solutions to the issues raised.

A review of public data quickly revealed that Howard County's agricultural sector is both small and highly diversified. As such it offers both opportunities for, and challenges to, the creation of a food hub. Vegetable production, for example, is limited to 110 acres of production with the largest crop acreage devoted to an ornamental crop, pumpkins. The next largest vegetable crops are sweet corn and tomatoes, with all others representing negligible commercial, fresh market acreage. For a food hub to be viable, an increase in production and diversity would be required. Otherwise, it would be impractical to gather and distribute wholesale quantities of vegetables to restaurants, retailers, or wholesalers.

Interviews with County farmers confirmed that market opportunity is not limited by facility-based services, such as aggregation, but instead were limited by programmatic and policy restrictions. Chief among their concerns are the impending food safety certification requirements imposed by the federal Food Safety Modernization Act audited by Good Agricultural Practices (GAP) certification. These regulations, which were previously enforced only on the largest farms, now apply to all fruit and vegetable producers, regardless of farm size or program cost. Unless these standards are adopted at the farm level, local producers would be barred from many, if not all, commercial sales.

Further evidence that a facility-based food hub is unlikely to be successful in Howard County can be found in the depth and breadth of the existing food supply chain. Howard County is the epicenter of a 100-mile radius supply chain that includes approximately 4,000 firms that are involved in all aspects of the food industry, including logistics, manufacturing, and distribution. After interviewing businesses operating in these sectors, it was determined that sufficient options to aggregate, ship, or value add were available in the market, but that critical services, such as quality assurance, food safety certification, and marketing support were lacking, putting local farmers at a marked disadvantage over farms from outside the area.

Given the above, the project team concluded that it would be a greater benefit to our client if further research and project development efforts were directed toward designing a multi-pronged Quality Assurance Program for the County combined with an associated

marketing and brand management program to raise awareness of Howard County farm products.

This multifaceted approach strives to implement the newly emerging food safety requirements as a method of expansion into new markets. This allows growers to participate in the supply-chain where well-documented demand for local, GAP-certified produce and quality assured beef cattle exists. The second facet of the approach involves creating a suite of strategic marketing initiatives designed to bolster consumer demand for local food.

ORGANIZATIONAL STRUCTURE

To institutionalize the Quality Management System for Howard County farmers, the project team recommends that a core group of County farmers and food system stakeholders form a 501(c)(5) agricultural membership organization as a way to unite farmers and support greater benefits for Howard County's agricultural sector.

The proposed legal name of this entity is the Howard County Farmers Association (HCFA). The HCFA would have three purposes: manage a produce quality assurance program that abides by Food Safety Modernization Act (FSMA) and GroupGAP certification standards; create a beef quality assurance program for Howard County cattle producers based on Local Harvest natural beef standards; and provide extensive branding and marketing initiatives for association members and the County's agricultural community at large.

According to the Internal Revenue Service (IRS), 501(c)(5) non-profits can include labor, agricultural, or horticultural organizations. The organization overseeing the beef quality assurance program would be filing as an agricultural organization. These groups are charged with the purpose of "promoting the interests of persons engaged in raising livestock, harvesting crops or aquatic resources, cultivating useful or ornamental plants, or similar pursuits." In keeping with this purpose, the HCFA would establish a Quality Assurance Association to improve market opportunities for small and mid-size Howard County farmers who sell to restaurants and other retail outlets, to provide marketing and branding opportunities that support local farmers, and to provide other market improvement programs deemed necessary.

Under 501(c)(5) rules, agricultural organizations must be committed to pursuing at least one of three different goals: improving the conditions of members engaged in agriculture, enhancing marketing and process efficiency, or improving the products themselves. By developing a quality management system for both produce and beef, the association would address these first two goals. Bringing Howard County farmers under an agricultural trade association would improve each individual farm's ability to sell to local restaurant and grocery retailers.

Establishing an agricultural trade association is a straightforward process that begins by creating a Maryland non-profit corporation. Once created, the organization must file a Form 1024 with the IRS describing its business activities and seeking authority to operate under this section of the Internal Revenue Code. The IRS charges an application-filing fee dependent on an organization's size and income. After the first year as an association, if the annual income is less than \$10,000, the filing fee would be \$400. If first-year receipts are above \$10,000, the fee would be \$850.

The project team recommends creating a startup board of five to seven members drawn from all stakeholders, including produce farmers, cattle farmers, and representatives from restaurant and retail sectors, to carry out all formational activities. In addition to industry members, the Board should have individuals who can offer guidance and support, such as an experienced CPA and an attorney. This Board would be responsible for enforcing mission and regulatory compliance, setting policy, and fiduciary duties.

An Association Manager should be hired to conduct the association's business. The manager would answer directly to the Board and, with the Board's support, continually innovate and improve association functions to maintain a robust, successful group. The manager's additional responsibilities would be to develop and maintain GroupGAP and beef quality assurance regulations, as well as marketing and branding measures. The manager would be expected to work closely with the County, participating farms, and Meyer Natural Foods to facilitate communication and cooperation between groups. In addition, the manager would facilitate membership outreach, sales, and offer technical assistance to association members.

INDUSTRY BACKGROUND

Howard County already has a well-established supply chain for the food industry, predominantly centered in Jessup, MD. Within just 100 miles of Howard County there are nearly 4,000 firms involved in some aspect of the food industry, including logistics, manufacturing, distribution, storage, and transportation. Furthermore, this supply chain is already actively engaged in developing sophisticated markets for locally produced foods.

Howard County has a high median income level and high education level compared to the rest of the United States. The average income for Howard County households is over \$110,000, and over 60 percent of population has a bachelor's degree or higher ([American FactFinder](#), 2014). To put this in perspective, the median household income in the United States that same year was \$53,482, and a little over 32 percent of the US population over the age of 25 held a bachelor's degree or higher ([American FactFinder](#), 2014). Higher income consumers tend to purchase larger amounts of fruits and vegetables than low-income consumers, according to United States Department of Agriculture's (USDA) Economic Research Service. Research by the Leopold Center for Sustainable Agriculture confirms that communities with high incomes and high levels of educational achievement are more likely to seek out local products.

To better understand these food-buying trends, the team conducted a consumer interest survey to collect empirical data. The target sample consisted of Howard County food enthusiasts, who were reached through Howard County-based food blogs. 42.86 percent of respondents currently purchase their groceries locally, and 52.68 percent of consumers believing that purchasing locally produced food is environmentally beneficial and supportive of Howard County's local economy.

When gauging how prohibitive buying local is, survey respondents often mentioned that buying local is too seasonal and more expensive than other options. Respondents also felt that local food is higher quality, less environmentally harmful, and more beneficial for the County. Howard County residents have the financial means to purchase local produce, but still often prefer accessibility to the perceived benefits of consuming local foods. It is important to note that 57.14 percent of respondents purchase locally despite all respondents stating they also purchase from supermarkets (survey analysis, appendix).

In 2012, Howard County had 293 farms, a decline from 335 farms in 2007. Despite this decline, farm acreage increased to 37,475 acres from 29,371 acres between 2007 and 2012 demonstrating a shift toward fewer but larger farms. However, only 20,903 acres were cropland with 19,372 acres harvested.

Land prices and preservation policies may have contributed to the growing gap. In Howard County, most farms are between 1 and 179 acres, and 122 of the 293 farms (41 percent of County total) had sales of less than \$2,500 in 2012. This emphasizes a need to

support small-scale agricultural operations. Reinforcing the point, average net farm cash income was just \$13,732. Only 38 percent of principal operators are farmers by primary occupation. Other operators likely have other, off-farm jobs to supplement their income ([2012 Ag Census of Agriculture](#)).

Only 110 acres of fresh vegetable products were harvested in Howard County in 2012. The only vegetables harvested in double-digit acreage were pumpkins, sweet corn and tomatoes; pumpkins are an ornamental crop, not sold for direct consumption. According to this data, Howard County farms alone could not produce the volume required to support a food hub or an e-commerce system. Cattle and other livestock, present a slightly better production picture with 52 farms and over 1,800 animal units present in the County.

Because of urban development throughout the County and the high cost of labor, farmers are limited in their capacity for growth. While total market value of agricultural products sold was \$31.8 million, the data and trends reveal a shrinking agricultural sector in the County.

Howard County producers John Dove of Love Dove Farm and Jamie Brown of Triadelphia Lake View (TLV) Tree Farm stressed the increasing importance of obtaining GAP certification to move product into different markets, including farmers markets, supermarkets, restaurants, and other portions of the retail sector. Although GAP certification could vastly increase the profitability of these small farms by enabling them to tap into larger markets, individual GAP certification is expensive, costing up to \$1,400 annually, as reported in the appended financial budget.

GroupGAP would provide an opportunity for a collaboration of farmers to receive GAP certification under a single plan, effectively decreasing the cost per farm. With 25 participating farms, each individual farmer would pay a proportional GroupGAP fee, and an additional \$300 membership fee to belong to HCFA. This fee would enable farmers to obtain a GAP certification and enjoy the benefits provided by the Association, including technical assistance, branding opportunities, and marketing advantages.

GAP adoption and certification offers two primary benefits: economic risk reduction and improved market access opportunities. According to the [GAP North Carolina Cooperative Extension](#), although GAP and third-party certification do not guarantee food safety, they do reduce the risk that a foodborne disease outbreak will originate on the farm. If contaminated produce is traced to the farm operation, it may damage the farm's reputation, create losses in sales, and generate potential lawsuits.

These risks are reduced with GAP adoption and certification. The benefit of GAP adoption is a positive externality, as the risk of a community outbreak decreases for each farmer that complies with the certification requirements, effectively reducing disease spread. This is a particularly relevant asset for GroupGAP, which enables more farmers than ever achieve GAP certification. Due to mounting food safety concerns, it is expected that a GAP certification will become a requirement for producers in the future.

Produce distributors, consumers, and retailers are increasingly concerned with food safety. As a consequence, food safety and quality assurance programs, including GAP, are commonly required. Companies like Wegmans, Whole Foods, Costco, and Wal-Mart are requiring their producers to comply with newer food safety requirements, such as Global GAP, Animal Welfare requirements, Good Handling Practices, and the Global Food Safety Initiative. In addition, the USDA has audit authority across states, territories, and Canada to inspect over 90 commodities, signifying both a commercial and federal push for stricter regulation and adherence. This addresses the current need of local farmers, as GAP certification provides economic opportunity by allowing farmers to sell to more retailers.

Individual GAP certification demonstrates an adherence to food safety standards and ensures a high quality product. To be GAP certified, a farm undergoes an audit to verify that fruits and vegetables are produced, packaged, handled, and stored following standards that minimize food safety hazards ([USDA](#)). The individual farms must develop and implement a Food Safety Plan and a Quality Management System that is consistent with USDA GAP standards. Implementing and maintaining a GAP certification—not including costs associated with updating infrastructure to comply with standards—can cost upwards of \$1,400 a year, which is a heavy burden to bear, especially for small and mid-sized farms (Financials).

On April 4, 2016 the USDA officially launched GroupGAP as a new certification program that helps small and mid-sized farmers meet the on-farm food safety requirements of retailers ([USDA](#)). In addition to helping farmers expand to larger markets, the novelty of GroupGAP would establish Howard County as an innovator and as a leader in supporting small and mid-sized producers of local agriculture.

BUSINESS CONCEPT DESCRIPTION

The following section outlines the three central business operations the HCFA would initiate—two separate quality assurance programs and marketing and branding initiatives.

To expand markets and make farms more profitable, small to mid-sized farms need to be connected to the retail and restaurant sectors. To successfully tap into these more competitive markets, it is imperative that farmers demonstrate an adherence to Quality Assurance Programs such as Good Agricultural Practices and Beef Quality Assurance Standards to ensure high quality products that meet food quality standards. Howard County farms are capable of meeting growing demand, if farmers can create additional product value and widely market their products. Implementing quality assurance programs for HCFA members that encompass GroupGAP and Beef Quality Assurance Standards can create new markets, generating new income to pay for the operational costs of the new systems.

Results from the consumer group's survey demonstrate a demand in Howard County for local food. Of those surveyed, 90 percent already seek out local food. The Roving Radish is a county program dedicated to promoting healthy farm to table eating habits, while creating sustainable markets for local and regional farms. Roving Radish sells healthy meal kits, sourced from local and regional farms, at a discounted price to those in need. Its more than 140 customers indicate a desire for fresh produce, particularly when purchased regionally. Furthermore, the rise in farmers' markets in Howard County from two in 2000 to four markets spread out over four days in 2016 point to a rising demand for local food.

On the retail side, there are already County restaurants purchasing locally, such as Pure Wine, Elkridge Furnace Inn, Victoria Gastro Pub, and Bistro Blanc. Furthermore, Wegmans explicitly searches for Maryland producers to purchase from, with a particularly strong demand for beef.

Aggregating Howard County producers, who independently would not have the capacity to generate on a large enough scale to distribute to larger buyers, under one collaborative association would allow farmers to expand their markets to larger retailers looking to offer local products. Enabling large retailers such as Wegmans to offer Howard County products solves the dilemma surrounding accessibility highlighted by consumers in the survey.

In addition, the HCFA would also manage a marketing and brand development program with Howard County to increase outreach and consumer awareness of local agriculture. Pairing the HCFA with Howard County in events and promotional campaigns would be received well, as per positive feedback from survey respondents (survey analysis, appendix). Due to the recognition of Howard County's name and pre-existing interest in

local production, there is a desire amongst food enthusiasts to participate in sponsored events and engage with farmers. This need can be met through a harvest festival, a rewards card program, and a summer camp, elements of a managed marketing and branding program described below.

CREATE A GROUPGAP PROGRAM

Howard County should spearhead the effort to establish GroupGAP certification. Due to Howard County's limited number of fruit and vegetable farms (17 - [Table 2, 2012 Ag Census](#)), to create adequate supply, the County should consider expanding the group to farms in neighboring counties as well, while giving Howard County farms priority.

The group must develop and implement a shared Quality Management System (QMS), incorporating the requirements of a GAP or GHP food safety audit service, and agree to be audited as one body. Internal audits would be conducted by the association manager on participating farms. Individual farms would be tasked with upgrading equipment and practices to comply with food safety and QMS standards to minimize the possibility of contamination of fresh fruits and vegetables. Unannounced internal verification audits also may take place, depending on the length of the production period. Farmers, with the support of a consultant, would build and implement a QMS that they would abide by.

After submitting the application to USDA, a USDA auditor would conduct a system audit for the GAP plan and audit some of the farms in the group. The USDA audit occurs on a scheduled basis for annual GAP and/or GHP audits of a representative sample of the Group members' production locations.

The Association Manager would coordinate and organize the Group, their paperwork, and offer technical assistance. HCFA's GroupGAP program would directly enable small to mid-sized farms to access larger retail markets while minimizing their costs. GAP certification is rapidly becoming a standard requirement for not only retailers such as Wegmans and Food Lion, but at local farmers' markets as well. As of now, high cost is a barrier for this scale of farmers looking for GAP certification. GroupGAP would give Howard County farmers the certification that they need at a much more affordable price.

When marketing the GroupGAP program, HCFA might want to operate under a different "Doing Business As" name to avoid discouraging participation from farmers in other counties. It is important to encourage farmers from neighboring counties to participate in the GroupGAP program for it to be economically efficient.

ESTABLISH BEEF QUALITY ASSURANCE PROGRAM

To support Howard County's beef producers and to encourage restaurants and households to purchase local meat, HCFA could establish a Beef Quality Assurance Program for Howard County farmers. This program could help farmers meet industry standards for "natural" certification. Erick Jensen, president of the Local Harvest program at organic beef seller Meyer Natural Foods, expressed that Wegmans is experiencing high demand for beef produced in Maryland to Meyer's standards. Wegmans, through Meyer, could be a consistent market for Howard County beef producers.

Meyer has been producing high-quality beef for years, and their proven methods are essential to HCFA. These methods include requiring cattle to be vegetarian-fed, and banning the use of growth implants, hormones, antibiotics, and ionophores, among others. Meyer would be allowing HCFA to mimic that protocol, and if abided by properly, HCFA would effectively become a Meyer Local Harvest Beef Producer.

Local Harvest cattle are priced delivered, meaning the feeders are responsible for coordinating transportation to a Meyer facility. Once a pool of Howard County farmers have a group of cattle that meet Meyer's specifications and volume requirements, Meyer would purchase the cattle and finish them. The initial price Meyer would pay the beef producer is consistent with [USDA 5 Area Weekly Weighted Average price report](#) for the week before the cattle are harvested, which is largely based on weight, breed, and grade, and typically delivers a premium over local livestock options.

After being finished, the farmer would receive an additional Local Harvest bonus based on marbling, yield, and hot weight. Meyer offers a risk-free method of selling whole animals where the farmer gets paid up front, and then again based on the quality of their product.

HCFA would purchase Howard County beef product back from Meyer, at most on a monthly basis. HCFA would then resell this beef through an online "Dutch auction" platform where retailers, restaurants, distributors, and wholesalers who are Association members bid for desired quantities of Howard County beef. A Dutch auction begins with a high price, then descends in connection with a clock ticking down. An auction participant stops the clock to make a payment, and once quantity and type is confirmed, the clock begins where it left off, and bidding continues at a lower price, until all the beef is sold.

A Dutch auction would effectively gauge the amount purchasers are willing to pay for a high-quality Howard County product with limited availability. The HCFA would index the starting price to 20 percent less than the retail price that Wegmans or another high-end retailer charges for the same cut. The bidders would then drive down the price as the

auction moves forward. HCFA could distribute two pallets of beef a month, assuming one pallet would comprise primal cuts that would primarily go to butchers, restaurants, and high-end supermarkets with butchering capacity. The other pallet would largely contain consumer cuts, which could be sold to CSAs and farm stands who want to include local beef in their consumer products, to restaurants, and to retailers. Naturally, the suggestions made here may need to be adjusted once further research into demand is assessed and once the auction begins.

The Association would subcontract a transportation service to deliver the beef to purchasers. After establishing relationships with large buyers, HCFA may move away from an auction platform and toward direct sales or a CSA-style platform. Roving Radish (or another, pull, pick, and pack facility in the County) can be subcontracted to store and distribute the beef. HCFA, through the Association Manager, would coordinate the transportation of unfinished cattle to Meyer, financed through membership fees.

The proposed Quality Assurance Program offers a platform that enables small and medium-sized farms to access retail and wholesale markets. The organization manages and coordinates the GroupGAP certification process, provides internal auditing, offers technical support, coordinates the Beef Quality Assurance Program, and facilitates a monthly beef auction. This multi-faceted business model supports both produce farms and meat producers in the County, and provides multiple platforms through which consumers can purchase local food.

The organization would establish a Dutch auction to sell beef through an e-commerce platform. The Dutch auction is a short-term marketing strategy to generate and determine restaurant demand for local beef products. The key to the Dutch auction concept is scarcity; as demand rises and quantity available depletes, prices would go up which would increase profit margins. Lastly, it also builds branding for Howard County beef producers, as the Dutch auction system would be an innovative approach in the County while having the additional benefit of highlighting a high-quality, local item that has limited availability.

DEVELOP A MARKETING AND BRAND MANAGEMENT PROGRAM

To promote and support local Howard County agriculture, this report suggests developing a marketing and brand management program to increase outreach and the recognition of local agriculture. This can be accomplished through a variety of countywide events focused on stimulating recognition and consumption of local farms' produce and goods.

In this capacity, HCFA improves the accessibility for local farms by creating an incentive to change consumer buying patterns. Engaging consumers by improving local agriculture's accessibility through HCFA farms would provide exposure for members as well as convey a unified brand. These branding efforts encourage a relationship between

Howard County, local participating farms, and pre-existing programs such as Roving Radish. Current marketing campaigns, County association, and consumer bases can be expanded upon through County-supported events.

A harvest festival and a reward card program would be help achieve a stronger market presence, all managed by the HCFA, as well as a summer camp run by Parks and Recreation. In addition, these events would expand on previous marketing measures; new branding efforts would encompass the suggested events and the existing programs (i.e. farmers' markets and Roving Radish). By building customer recognition into each event, the newer marketing campaigns would improve demand for local products, because consumers tend to purchase items they are more familiar with, according to class research.

Brand development should initially begin through Howard County's online presence, from its website to current social media campaigns; creating another platform for consumers to engage with the brand would allow them to associate local farms and the County with certain promotional campaigns.

Branding would also make marketing events more feasible as customers would associate the events with local food and the County. Events, marketing campaigns, and branding all work together to promote one another; events and campaigns expose consumers to the County and its farmers, while brand recognition helps market the events and campaigns through association and loyalty.

The first event recommendation is a summer camp for children to learn about local agriculture by visiting a different Howard County farm each day and engaging with local production. Campers would learn to be conscious of where their food is coming from and what they are eating by exploring the farms and participating in hands-on activities, such as planting seeds, collecting chicken eggs, harvesting vegetables, composting, and more. This summer camp appeals not only to children, but their parents, as it encourages educational and physical activities that promote a more knowledgeable and healthy lifestyle. It provides exposure, recognition, and engagement between individuals and local farms, under the Howard County brand.

The camp's target customers are parents with children enrolled in a Howard County Public School System (HCPSS) elementary school. There are currently no camps in the County with an agricultural focus, and it is not a subject widely covered in school curriculum. Children would learn by directly meeting Howard County farmers and exploring what happens day-to-day on a farm. This program would also help foster relationships between Howard County farmers and families, and would initiate long-term demand for Howard County agricultural products through education that stresses the importance of agricultural production, nutrition, and sustainability.

The summer camp would help build the identity of the Howard County local food brand through education outreach. Through a proportional payment scheme, revenue can be secured incrementally even if parents seek refunds or leave the program. The camp would

be marketed through the HCPSS Parent Teacher Association (PTA) through promotions on the HCPSS social media pages, newsletters, main website, and camp catalog. The camp should be owned and operated by Howard County Parks and Recreation, creating consistent County engagement that reinforces marketing and branding efforts.

The second event recommendation is a Howard County harvest festival, where event goers would learn about local agriculture and get to know farmers by visiting local farms and purchasing locally grown food during the festival. Marketed as a fun, seasonal event promoting healthier eating and more responsible consumption, the harvest festival would highlight the benefits of local consumption and help increase accessibility by providing direct contact and social engagement with farms and their produce.

Assuming 2,600 visitors a day, the two-day festival would be held on a late September weekend. Participating farms would be HCFA members, participants can visit and engage with four different farms over the course of the festival, and vendors from other farms can sell their produce. Participants would buy tickets to farm tours, activities, produce picking, and performances. The festival provides a platform for farms to display how locally produced crops are accessible, resulting in revenues and exposure for not only participating farms, but the County as well.

The targeted customers are Howard County residents, particularly those willing to visit local farms and purchase local food. The harvest festival works to build the Howard County local brand, as well as relationships between farmers and consumers, by offering a trusted and promoted method of engagement. By advertising through Howard County's official website and other social networking platforms, residents would associate the local agriculture brand with Howard County fostered by municipal events. This gives participants an incentive to change their purchasing behavior by focusing on local consumption through direct contact with local farmers; they can also get in touch with local farmers and purchase directly during and after the festival, forming an economic relationship. The harvest festival would be held by Howard County as a revenue-generating event, with a portion of the proceeds distributed to host farms.

The third recommendation is a reward card program that promotes local agriculture in cooperation with participating restaurants and farmers' markets. This not only supports local restaurants and businesses, but also provides additional wholesale and retail incentive for restaurants to purchase from local farms.

As part of the reward card campaign, consumers would be given a free stamp card when they complete a transaction that includes a certified Howard County product. For instance, a consumer would receive a stamp card when they buy from a Howard County vendor at any farmer's market or restaurant that sells locally produced foods. Each purchase from a local vendor and restaurant results in a stamp, that when collected to a certain amount, would qualify the card-holder for promotional deals and discounts.

Customer loyalty is fostered through discounts earned by consistent purchasing of Howard County produced goods. Operational costs would include printing cards and

stamps, as well as the necessary staffing to promote and maintain the reward card system. With each purchase working toward the goal of discount vouchers at participating vendors, the Howard County brand is strengthened through the compounding purchases of a locally produced goods at a supporting vendor. In addition, this would attract residents who don't typically frequent local vendors and markets; as the survey determined, a majority of consumers would prefer to buy locally from markets. This system offers increased local restaurant participation, prolonged association between Howard County and local agriculture, and financial benefit through exposure for local farms.

By targeting Howard County residents who already eat at local restaurants or shop at local farmer's markets, more frequent patronage may result from the created incentive. By requiring local restaurants to purchase a certain amount of locally produced goods on a regular basis, local agriculture maintains a retail relationship that provides consistent revenue and interaction. Relationships fostered between restaurants, farms, and consumers would be expanded through County marketing, allowing for social media interaction between the County and residents. The Howard County brand would develop commercially through restaurant participation, and demonstrates the County's continued support for local business, agriculture, and citizen welfare.

SUMMARY OF OPERATIONS

This section provides a summary review of the key operating elements of the HCFA.

GROUPGAP PROGRAM

A successful GroupGAP program requires an effective Quality Management System and Food Safety Plans in which all farmers in the group participate. To develop effective and long-lasting plans, an outside consultant should be hired for the first year from an established company with industry experience. The consultant would develop the initial Food Safety Plan and Quality Management System. This initial process is the most labor, cost, and time-intensive portion of GroupGAP and is crucial to the program's long-term success. The Association Manager would work closely with the consultant in the first year to learn how to navigate the intricacies of the program's paperwork and plans to effectively carry it out independently in the following years. Maryland Extension Services can offer technical assistance to the manager and/or participating farms after the consultant's term has ended.

For the duration of the program, the Association Manager would ensure farmers' adherence to Food Safety Plans and Quality Management Systems by conducting internal audits, coordinating farmers' memberships in the program, and organizing the documentation associated with these activities, including applications and financials. In the future, the manager might be responsible for coordinating produce sales between the Association and retailers, wholesalers, and restaurants. In this initial proposal, individual farmers who are GroupGAP certified would conduct their own sales.

BEEF QUALITY ASSURANCE PROGRAM

The Beef Quality Assurance Program would operate as a collaboration between livestock producers. The Association Manager would represent the group and would communicate with Meyer on their behalf, confirming dates, organizing transportation, and facilitating buy-back. Furthermore, the manager would oversee the auction, work with producers and purchasers to determine what cuts and quantities to buy, maintain inventory on the auction's e-commerce platform, and oversee the product distribution. The Association would subcontract with Roving Radish (or one of the many other organizations in Howard County's robust food systems sector) to store, pull, pick, and pack the beef to be distributed. HCFA could also subcontract Roving Radish (or again, another similar organization) to facilitate distribution via refrigerated trucks. Roving Radish could also

become a customer of the Association by purchasing a monthly portion of local beef in cuts and quantities that adhere to its nutritional standards.

Once the meat is pooled and purchased back from Meyer by HCFA, it would be taken to Roving Radish for storage and distribution. Roving Radish would be solely responsible for managing and operating Local Orbit, an online retail platform. In other words, Roving Radish buys the meat from the HCFA and sells it through Local Orbit. HCFA would be offering Roving Radish beef at a fixed 35 percent markup on manufacturer's price. Any additional meat that might be needed by Roving Radish can be procured from the auction separately.

MARKETING AND BRANDING PROGRAM

In addition, the HCFA would also manage a marketing and branding program along with Howard County to increase outreach and consumer awareness of local agriculture. Pairing the HCFA with Howard County through events and promotional campaigns would be well received, per positive feedback from survey respondents (survey analysis, appendix). Due to the recognition of Howard County's name and pre-existing interest in local production, there is desire amongst food enthusiasts to participate in sponsored events and engage with farmers. This need can be met through a harvest festival, a rewards card program, and a summer camp, all county and HCFA managed marketing and branding efforts.

PRO FORMA ASSUMPTIONS

The organization would have a floating budget, with cost and revenue structures that change over time. Cost and revenue depend on the number of farms involved, USDA rates, hired staff, and auction sales.

It is anticipated that Howard County would provide HCFA with a grant to cover the start-up costs of forming an association to enable HCFA to move forward as a successful entity that supports local agriculture. HCFA would also hire a full-time manager who is a USDA-certified internal auditor, with support from the Maryland Department of Agriculture, and initial support from a food safety consultant.

The Maryland Department of Agriculture (MDA) has special cost-share programs for farmers that would be beneficial in attaining the GroupGAP certification. Cost-share programs from the MDA would help mitigate USDA audit costs, and would substantially reduce the cost to farmers through reimbursements. MDA can also provide technical assistance to GroupGAP participants.

The MDA also has its own GAP program and auditors who are familiar with the USDA auditing process and the Quality Management Plan who can provide free preliminary audits to check that the farmers are complying with the system and completing necessary paperwork. A large group of farmers adhering to one single Food Safety Plan runs a substantial risk for food safety issues, which could compromise the whole group. A pre-audit before the official USDA and internal audits would address any food safety issues preemptively and would reduce the risk of noncompliance.

MOVING FORWARD

HCFA could significantly increase the capacity of Howard County's agricultural sector to reach new markets. Specifically, the programs outlined above would make Howard County a leader in supporting local agriculture through innovative programs that encourage innovation and generate profits that would be reinvested in the County's agricultural sector.

As HCFA grows, it would have to innovate and expand. It is imperative that HCFA continue to engage in opportunities that encourage small and mid-sized farmers and producers to be productive and successful in Howard County, and to continue to support local agriculture, HCFA should consider hosting events such as trainings on sustainable agriculture, and purchasing acres of land and leasing out smaller portions to new farmers who want to explore organic farming, scholarship funds for young farmers, and financial support for new farmers unable to afford land in the County.

Program 1: Sample Camp Itinerary:

Monday

7:30am-8:30am	Morning care at Bushy Park Elementary cafeteria (\$40 per week)
8:30am	Camper drop off and check in at Bushy Park Elementary cafeteria
8:30am-8:45am	Group activity and wait for campers to arrive Songs
8:45am-9:20am	Introductions and split into groups “Get to know you” activity
9:30am	Load onto bus
9:45am	Arrive at TLV Tree Farm
9:45am-10:30am	Farmer introduction Farm tour Gather materials for craft
10:30am-11:00am	Plant seeds by hand
11:00am-11:30	Feed and water chickens Collect chicken eggs
11:30am-12:15pm	Lunch and games Songs
12:15pm-1:00pm	Feed and water cows
1:00pm-1:30pm	Pick strawberries
1:45pm	Meet at bus
2:00pm	Arrive back at Bushy Park Elementary cafeteria
2:00pm-2:45pm	Make strawberry and vanilla ice cream with milk and strawberries picked from the day Eat and play games
2:45pm-3:15pm	Craft with supplies gathered from farm tour
3:15pm-3:30pm	Games
3:30pm-6:00pm	Aftercare at Bushy Park Elementary cafeteria (\$80 per week)

Friday

7:30am-8:30am	Morning care at Bushy Park Elementary cafeteria (\$40 per week)
8:30am	Camper drop off and check in at Bushy Park Elementary cafeteria
8:30am-8:45am	Group activity and wait for campers to arrive Songs
8:45am-9:20am	Introductions and split into groups “Get to know you” activity
9:30am	Load onto bus
9:45am	Arrive at TLV Tree Farm
9:45am-10:30am	Farmer introduction Farm tour Gather materials for craft
10:30am-11:00am	Plant seeds by hand
11:00am-11:30	Feed and water chickens Collect chicken eggs
11:30am-12:15pm	Lunch and games Songs
12:15pm-1:00pm	Feed and water cows
1:00pm-1:30pm	Pick strawberries
1:45pm	Meet at bus
2:00pm	Arrive back at Bushy Park Elementary cafeteria
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3:15pm-3:30pm	Games
3:30pm-6:00pm	Aftercare at Bushy Park Elementary cafeteria (\$80 per week)

Program 2

1. Revenue:

- a. Price per ticket: \$1 for 1 ticket, ticket is a kind of currency that is equally used as cash
- b. Assume 2,600 visitors per day in 4 farms and total 2 days, each visitor purchased 10 tickets: \$52,000
- c. Vendors pay \$70 per day to rent the space to sell food i.e. 5 vendors per farm per day: $\$70 * 5 * 4 * 2 = \$7,560$

2. Cost:

- a. Advertising: Howard County official online channels like social media and the Howard County website will be used for primary advertising methods. An additional cost of \$200 per month will be used for design and printing.
- b. Rent or lease equipment: The festival will provide a public transportation services to and between farms(\$300 per vehicle per day)
- c. Entertainment: incurring cost from materials prepared. \$800
- d. Materials and Supplies, like gift bags we hand out to audiences for carrying food they picked up. We can print our brand on bags. \$1,000
- e. Contract Labor: most labors are farmers' contract labor who work on farm in contract period, and this event is like an additional earnings for them, \$80 per person or instead, they are allowed to bring their families no more than 8 people (assume 10 tickets per person, $\$10 * 8 = \80) \$1,280
- f. Tickets roll: \$5.10 for 2,000 tickets, $\$5.10 * 20 = \102
- g. Utility cost: \$100 per farm per day
- h. Insurance cost of four farms incur in September for \$800.

Program 3

During the harvest festival: \$1/ticket

- a. Transportation service: free service once a day; four buses for four farms
 - i. pick up at 9:00 am
 - ii. location: the central point of the four farms--the shortest distance
 - iii. back at 6:00 pm
- b. Picking up pumpkin: each individual is free to pick up one pumpkin, more than one pumpkin will be charged at market price
- c. Meals: visitors use cash buy food from food vendors
- d. Rent fee charge for food vendors: vendors need to pay a rent fee for \$ 70 per day

Pro Forma Financials:

Cost of printing 1000 business cards: \$100

Cost of 1 custom logo stamp: $\$20 \times 20 = \400

Cost of voucher: \$10

-----Total: \$500 + cost of vouchers earned
by customers

Consumer Interest Survey Reportings and Analysis

To better facilitate an accurate understanding of the Howard County consumer's food-buying trends, we implemented a consumer interest survey to collect empirical data. To gather relevant data, we needed to understand the opinions of consumers towards their ingredients. Our target sample consisted of Howard County food enthusiasts, who we reached out to through Howard County-based food blogs. Rather than comparing demographic trends with broader national economic data to create assumptions on what a Howard County consumer would purchase, we opted to gather this data directly through an online survey that follows productive surveying guidelines. Namely, the purpose of this survey was to precisely understand buying patterns, rather than base our understanding from broad, less relevant federal data.

Our survey netted 45 responses through 20 questions, and a majority of the responses were received in the same day. We were able to understand our target's preferences through keeping a relatively short question count, placing demographic questions last, and using ranking, matrix, and user input options in our questioning. We gathered our information by asking about their definition of local food, what they find enticing or prohibitive about buying local food, and by gauging what and where they would purchase. In further analyzing the data we receive, and accounting for user-input comments that have so far discussed accessibility and the definition of "local," we hope to generate our own model and understanding of the Howard County consumer's interests towards local food consumption.

Our data represents the target audience, local food enthusiasts, fairly well; 28% of respondents felt that "local" meant within 100 miles of their home, and nearly 25% believed that "local" was defined as "produced in" Howard County. Similarly, 90% of respondents do seek out local food, and 56% of respondents purchase from farmer's markets or CSA's. Additionally, our data has shown that when purchasing groceries, consumers favor freshness, taste, and variety. If they were to improve upon local

consumption, they would seek out farmer's markets more frequently, or buy directly from the farm.

Consumers of Howard County who responded would have an expected household member count of 2.6668 (or 3), given that 14.29% responded having only one resident, 38.1% having only 2, another 14.29% having 3 members, and 33.33% having 4. The expected annual income of the respondents would up to \$133,500, however this does not account for the three respondents who preferred not to report their income. Additionally, this expected value of income does not factor in that response choices were income brackets rather than individual values; regardless, 40% of respondents reported that they earn at least \$200,000 annually. The expected education a respondent would have attained is at least a bachelor's degree, as 90.48% reported they received a postgraduate degree, with 95% of total respondents living in Howard County. Finally, the expected value of income spent on groceries is \$609.44, where 23.81% spend between \$301-\$400, and no respondents reported spending over \$1500 on groceries.

This reported data allows to confirm our model Howard County consumer from ERS data from the USDA and Census data; the Howard County consumer is a high-earning, educated resident who has at least one other member in their household. This accumulated understanding can lend towards other projections, especially coupled with other hypotheses and findings. Given that 35% of respondents would prefer to buy their local food from farmers markets, with another 35% hoping to buy directly from farms or through CSAs, there is a consumer base able to participate economically, despite the apparent notion that the prices are prohibitive.

The survey's findings show that respondents believe that buying from Howard County producers would support the local economy, have less of an environmental impact, and provide better quality ingredients. Additionally, while all respondents purchase from supermarkets, 57.14% already purchase locally, rather than the 42.86% who purchase from wholesale suppliers or the 19.05% who purchase from discount retailers. This shows that not only is there already a marketable base, if bulk purchasing

was accessible, or the prices, there would be an interested group of consumers. For the county, this means that current marketing and outreach has been effective, if half of those who purchase at grocery stores also purchase locally. This means that current efforts can be used to strengthen the notion that local farms are willing to sell a higher quantity, and that buying locally is not economically prohibitive.

When gauging how prohibitive buying local is, our data stresses that consumers feel buying local is inaccessible and more expensive than other options, despite their reported convictions that local food is higher quality, less environmentally harmful, and more beneficial for the county. This is not an economic exigence, but rather a marketing and outreach problem, as Howard County residents have the financial means to engage economically within the county, but prefer accessibility over perceived externalities. This current understanding of reported data shows that while consumers would enjoy participating in the local economy, to attract more consumers, local produce would need to be more accessible, and target pre-existing direct interaction between farmers and consumers.

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