



# SMALL FARMERS CAN MAKE FOOD SAFETY WORK

The GroupGAP Pilot  
Project in Michigan's  
Upper Peninsula

# Acknowledgements

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# Executive Summary



Due to changing federal regulations found in the 2011 Food Safety Modernization Act as well as pressure from larger food buyers to minimize the risk of legal action and food recalls, it appears that in the near future all farms (regardless of size) may need farm food safety certification to sell to certain markets. This pilot project investigated group food safety certification as a scale-neutral, cost-effective alternative to individual certification. This case study provides a brief background of the collective certification model called GroupGAP and an overview of the Michigan Upper Peninsula (U.P.) pilot project, including implications for small, rural farmers interested in exploring wholesale markets that require more robust food safety standards than direct markets currently require. The study found that collective certification is cost-effective, is scalable, and opened new markets for small and very small farmers.

This pilot study confirms that good agricultural practices (GAP) certification can meet group needs at an affordable cost working with small and very small farms. While there is not a direct farm or GroupGAP audit pricing comparison, had each participating farm been individually audited, the total price of certification would be significantly higher than the total \$492 per-farm cost. Direct costs to each farm for individual certification can be estimated based on mileage and the hourly rate of inspection that necessitates a USDA inspector to drive to and tour each farm. For this project, that cost of USDA staff time and resources was significantly reduced. Including a quality management system (QMS) audit and the costs of four farms inspected, it is estimated that individual farm savings through GroupGAP certification versus individual certification is about \$700.

It is important to note that each farm had group support and an internal system assisting to build its food safety plans. Accounting for the time spent in 1) pilot project meetings and calls, 2) creating the QMS and food safety manual, 3) audit and reporting, and 4) farmer mentoring and question and answer support, more than 1,000 staff hours were logged by the U.P. Food Exchange (UPFE) staff. Calculated at an average rate of \$25 per hour, this local support cost for the pilot is \$25,000.

Future GroupGAP programs based on the UPFE pilot or other pilot programs in Michigan, will likely not require as large a time commitment from collaborating partners because of the groundwork laid by this initial study. Specifically, trainings are already in development between USDA and pilot sites tailored to Michigan's unique growing region. Additionally, the QMS and food safety manuals have been revised and streamlined to incorporate 2014 pilot farmers' feedback, tailoring the manuals for more efficient use. Several U.P. GroupGAP graduates have also stepped forward to mentor future interested participants to create and implement farm safety and record-keeping practices. In spring 2015, Michigan local foods distributor Cherry Capital Foods, with support from the Wallace Center at Winrock International, joined the pilot and is assisting farms desiring GroupGAP certification in the Northern Lower Peninsula as they recognize food safety certification needs of their purchasers. A distributor of Michigan products, Cherry Capital has a compliance team in place and the capacity to offer internal inspector and farmer support as well as QMS and food safety manual development. Research will continue through 2015 by recruiting a cohort based in Mid-Michigan with emphasis on certification benefits and farmer participation.



# Introduction and Background



## Food Safety

According to a 2013 report (Painter et al., 2013), the U.S. Center for Disease Control and Prevention found that produce such as fruits and vegetables accounted for 46% of the 4,589 foodborne illness outbreaks linked to a specific commodity between 1998 and 2008. At the top of the list were leafy greens, which were most responsible for illnesses infecting the stomach and intestines. The Food and Drug Administration (FDA) also documented foodborne illness from 131 outbreaks associated with contaminated produce between 1996 and 2010, causing more than 14,000 illnesses and 34 deaths. Consuming fresh produce has a greater risk than cooked produce, as fresh produce is rarely subjected to temperatures high enough to kill harmful pathogens.

To help prevent such occurrences of illness, the Food Safety Modernization Act (FSMA) was passed in 2011 to proactively address contamination through preventive measures. Within FSMA, water standards and quality testing are addressed as well as manure strategy, types of farms covered, and wild animal provisions. However, many of the new produce

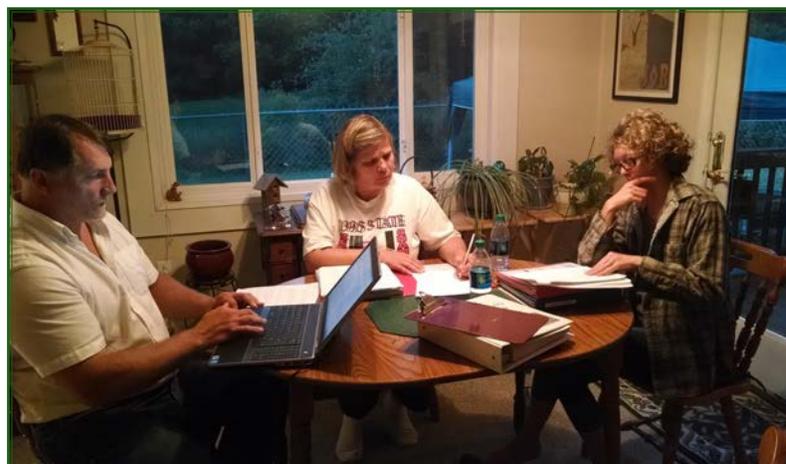
safety requirements do not apply to small-scale farmers selling into direct markets such as farmers markets. Under the Act, farms are exempt if they average less than \$500,000 in produce sales annually (for the last three years) and sell most of their food directly to consumers, restaurants, and stores within the state or fewer than 275 miles from the farm. The rationale is that dealing with the complexities of food safety rule implementation and maintaining associated paperwork can be difficult for small-scale farmers who may not have the means to handle additional processes and record keeping.

## Group Good Agricultural Practices

Good agricultural practices (GAP) are a set of specific methods of growing and processing agricultural commodities to reduce the incidence of foodborne illness. As a response to the European outbreak of bovine spongiform encephalopathy (or mad cow disease) in the 1990s, the nonprofit Global G.A.P. was founded in 1997 as a group of British retailers who worked together with supermarkets to meet consumers' growing concerns surrounding

food safety and animal welfare (Global G.A.P., n.d.). Utilizing the International Standardization Organization's (n.d.) ISO 9000 guidelines to meet stakeholder, customer, and regulator requirements, Global G.A.P. provides a model for GAP auditing and certification with particular applicability to local, small-scale growers. Within this model, farmers develop a shared quality standard and a set of procedures to which they are held accountable. Based on this concept, "GroupGAP" refers to such a team of partners working together to achieve collective GAP certification domestically (Wallace Center at Winrock International [Wallace Center], 2012).

Since 2010, several pilot studies have found GroupGAP certification to be a cost-effective method of auditing that shares both costs and associated risk—such as incurring further costs, should they fail the audit—among one set of farmers (Wallace Center, 2012). In this group approach to farm food safety certification, a set of farmers complies with a set of policies and procedures that govern the group's administration of food safety. This set of policies and procedures is known as a quality management system (QMS). The QMS outlines a farmer group's leadership responsibility, record keeping, personnel and supplier procedures, and documentation. Providing on-the-ground support, an internal group inspector works with farmers to ensure GAP compliance to USDA food safety standards. The internal inspectors are outside stakeholders rather than farmers participating in GroupGAP. Prior to the actual audit, the group inspectors may educate the farmers. During the time of the audit, however, the inspectors may only ask clarifying questions as to the auditor's decisions. Rather than a USDA auditor individually certifying each farm as crops are ready for certification, the auditor takes a statistical sample of the farmer group and only inspects some of the farms, reviewing the sample group's QMS and individual food safety manuals. Should the sample portion of audited farms pass, the entire group is passed. Through group certification, the costs of auditing are reduced because the USDA inspector's time and travel are reduced. These costs are split among all members of the group, including both audited and non-audited farms. The group of farmers participating



realizes another unique benefit through the learning network formed, which allows invaluable member mentorship and resource sharing across the farms. As part of the audit, farms' adherence to GAP standards is measured. To evaluate this, the USDA requires documentation and record keeping be demonstrated in the form of a QMS. Specifically, the USDA requires that "the quality manual must establish the necessary competence for personnel performing work affecting produce quality, including criteria for training!"<sup>1</sup> In the case of GroupGAP, the QMS allows the USDA to inspect a statistical sample of farms. Since none of the farms knows whether it will be audited, each farm is prepared with their own food safety plan in place. Random sampling reduces costs but maintains the integrity needed to ensure food safety.

While the QMS supports group governance, the farm-level food safety manual provides a reviewable set of policies and procedures that direct farm-specific food safety practices. These policies and procedures are designed to meet the requirements of the GAP standards. The food safety manual offers guidelines for detailed procedures such as water testing and contamination risk monitoring tailored to the specific farm's production. Each farm maintains its own food safety manual and makes adjustments to reflect its actual practices. Should a farm be a part of the statistical sample audited, the inspector will review the food safety manual and compare to GAP standards.

<sup>1</sup> The documented QMS must include, at a minimum, the procedures and records required by the chosen GAP or GHP audit standard. The audit standards available for the USDA GroupGAP & GHP Certification Program are located here: [www.ams.usda.gov/gapghp](http://www.ams.usda.gov/gapghp)



In the United States, such voluntary GAP auditing and verification for small farms has been led by the USDA's Agricultural Marketing Service (AMS). Particularly, a Global G.A.P. group approach has been ongoing in the Pacific Northwest of the U.S.; it has been found to be effective for tree fruit producers and cooperatives supporting entry to the global market (Wallace Center, 2012). While global advantage was found for small farmers, domestic receptivity for GroupGAP in the United States has been limited. The USDA AMS and the Wallace Center at Winrock International solicited the partnership of Good Natured Family Farms (GNFF), located in Kansas City, Missouri, to pilot a project beginning in late 2010 to explore GroupGAP potential in the United States (Wallace Center, 2012). It was found that GNFF could continue to improve its approach to GAP through its QMS, implementing actions such as ongoing development and maintenance of the QMS manual, record keeping and internal controls, documentation of roles, and points for continuous improvement noted during the USDA AMS audits (Wallace Center, 2012). This exploratory study concluded that best practices would emerge from additional pilots demonstrating the merits of GroupGAP certification for U.S. farmers.

### **Local Market Development**

A 2010 report (Connor, Knudson, Hamm, & Peterson, 2010) found that Michiganders require approximately 2.15 times more fruit and 1.79 times more vegetables than they are currently consuming to meet federal government nutrition guidelines. A combined increase in fruit and vegetable sales of approximately \$166 million is needed to meet the guidelines. This equates to an additional income of about \$248 per acre to Michigan farmers. The study found that addressing this need would result in a net increase of 1,780 jobs and \$211 million in income within the state of Michigan. Clearly, small changes in eating habits can have a big impact on the local economy. However, small farmer access to institutional markets may be limited because of food safety requirements. GroupGAP food safety certification is one way that such barriers may be reduced for small and very small farmers entering institutional markets.

# Upper Peninsula Food Exchange GroupGAP Pilot

## Pilot Development

The Upper Peninsula Food Exchange (UPFE) is a partnership between the Marquette Food Co-Op and Michigan State University Extension (MSUE) with the support of the Western Upper Peninsula Health Department to coordinate local food activities underway across the Upper Peninsula (U.P.) of Michigan. UPFE has found that many of its participating farmers were unable to sell to institutions such as Lake Superior State University. To overcome this barrier, in 2011 UPFE began hosting food safety trainings for farmers across the U.P. (in partnership with MSUE) that combined classroom education with a mock USDA food safety audit at local farms.

## UPFE GroupGAP Team Development

In 2012, MSU Center for Regional Food Systems (CRFS) Senior Associate Director Rich Pirog introduced the UPFE to the Wallace Center for Sustainable Food Systems at Winrock International and National Good Food Network Food Safety Coordinator Steve Warshawer. The Wallace Center is committed to advancing regional, collaborative efforts to move good food<sup>2</sup> into larger-scale markets. The Wallace Center partnered with the USDA to pilot a study focused on understanding assets and barriers to GAP food safety certification. The pilot study was conducted at six pilot locations: Good Natured Family Farms in Kansas City, Missouri; Organic Valley in La Farge, Wisconsin; Western Montana Growers Cooperative in Arlee, Montana; Fair Food in Philadelphia, Pennsylvania; Agriculture and Land-Based Training Association in Salinas, California; and Carolina Farm Stewardship Association in Pittsboro, North Carolina.

Also in 2012, Marquette Food Co-Op Outreach Director Natasha Lantz met then-RTI Surgical staff employee Phil Britton at a food and agriculture conference in Escanaba, Michigan. Britton was intrigued by local food systems and volunteered to work with UPFE to help U.P. farmers. Due to Britton's extensive knowledge of quality management protocol, Lantz asked him to join the UPFE GroupGAP team and, in 2013, tailor a management system to verify food safety practices in the region. During that summer, Marquette Food Co-Op Local Food Projects Coordinator Neal Curran joined the UPFE team to begin researching and writing a food safety manual template.

Because of Britton's prior QMS experience, the unique geographic location of the U.P., and the small farm size and diverse production of U.P. farmers, Warshawer asked the UPFE to join the Wallace Center's GroupGAP pilot project. As this project began, each of the seven pilot sites was invited to shadow a mock audit of an organic Amish farm, part of the Organic Valley cohort in Wisconsin, in December of 2013. This tour allowed members of the UPFE team to gain perspective on how this process could be tailored to the U.P. cohort, a significantly smaller and more diversified group.

## Funding Support

At the time of these negotiations, Michigan Food and Farming Systems (MIFFS), UPFE, and MSU CRFS wrote and were awarded a USDA Specialty Crops Block Grant (SCBG), administered by the Michigan Department of Agriculture and Rural Development (MDARD), that would provide support for a GroupGAP pilot program in the U.P. Specifically, this funding would address capacity-building issues for smaller-scale Michigan U.P. farmers (farms under 100 acres, the majority under 20 acres) to increase marketing and food safety literacy and practices in order to be competitive in selling to larger-volume specialty crop buyers. This funding provided resources for the UPFE GroupGAP pilot with a QMS development process to certify up to 15 small farmers to entry-level GAP food safety standards. It also included mini-grant awards of up to \$500 to bring individual farms into compliance and to complete pilot project documentation.



<sup>2</sup> According to a definition developed by the W.K. Kellogg Foundation and its partners in 2006, "good food" is defined as food that is healthy, green, fair, and affordable for all people.



As a benefit to the participating farms, all emerged with a farm food safety plan that included tracking logs, record keeping, food safety signage, and standard operating procedures. Through this project, farmers had the benefit of group support, sharing best practices as well as gaining access to an internal inspector who could advocate on each farmer's behalf. The internal food safety consultants were solicited from a group of partnering stakeholders including the Marquette Food Co-Op, MSUE, the Western Upper Peninsula Health Department, Keweenaw Food Co-Op, and the Chippewa-Luce-Mackinac Conservation District. Additionally, *Wholesale Success*<sup>3</sup> guides, a resource to inform farmer decisions on such important issues as crop-specific packaging and storage temperature, were purchased and provided to participating farmers.

To help document this pilot process and assess impact, a farmer interview protocol was finalized in June 2014. The initial interview was developed by Mary ZumBrunnen (One-Community Consulting, LLC) in cooperation with project participants from CRFS, MIFFS, UPFE, and MSUE. Questions covered included farmer demographics and perceptions of GroupGAP, pilot outreach and education, GroupGAP processes, cost/benefit feedback, technological and equipment changes due to participation, record keeping, current and future participation, and pilot feedback. Interview responses are documented in the following section.

## Farmer Participation

All farmer participants in the pilot project were required to participate in trainings, GroupGAP inspection, pilot debriefing, and interviews. Additionally, actions such as equipment adjustment to bring farms up to compliance were required as necessary; the costs were partially offset by SCBG mini-grants. Requirements for 2014 participation included the following:

- Attend the USDA GroupGAP farmer training (April).
- Participate in an initial assessment and educational visit, including current GAP practice analysis inspection of their farm by an internal group auditor (June).
- Participate in an official inspection of their farm by an internal auditor (August).
- Participate in an official inspection of their farm by a USDA GAP auditor if their farm was one of those selected at random from the group (September).
- Attend the debriefing meeting (November).
- Communicate and provide feedback in a timely manner to GroupGAP pilot project coordinators.
- Participate in interviews and share information about their GroupGAP experience with researchers for data collection.
- Complete regularly scheduled monitoring tasks requiring 5–15 minutes daily, weekly, and monthly.
- Perform scheduled water sampling.
- Comply with food safety regulations.
- Agree to share the costs of the USDA audit for the percentage of farms randomly selected to represent the group.
- Agree to make necessary upgrades and/or accommodations at their farm for compliance.



<sup>3</sup> For more information go to <http://www.familyfarmed.org/publications/wholesalesuccess/>

Of 16 farms spread across the Eastern, Central, and Western regions of the U.P., 12 continued through June of 2014, and 10 completed the program and received GroupGAP certification<sup>4</sup>. The six farms not completing the program found that GroupGAP did not fit their current business model because the timelines were too demanding during busy times for the farmers. Farms stretched across the U.P. from Sault Ste. Marie to the east, westward to Munising and Marquette, and southwest to Felch and over

to Ontonagon. Each farm had 6 or fewer acres of fruits and/or vegetables in production and saw an average total gross income of about \$6,000–10,000. The farmers were a mix of full and part-time; several had support through spouses or summer assistants. On average, participants had been farming an average of 15 years (ranging from 3 to 50 years). Crops grown included berries, leafy greens, root vegetables, edible flowers, perennial fruits, and herbs (see Table 1).

**Table 1: GroupGAP Certified Produce – Farm Information**

Farm	Michigan Upper Peninsula Location	Cultivated Acreage of Fruits/Vegetables	Crop
Anya Farms	Chassell	1 acre	garlic
Blueberry Pier	Menominee	0.2 acres	various fruits and vegetables
Hannah’s Garden	Marquette	0.5 acres	beets, carrots, leeks, parsley, peppers, tomatoes, various other vegetables
Reh-Morr Farm	Eben Junction	0.5 acre	beans, beets, carrots, corn, kohlrabi, onions, peas, potatoes, radishes, spinach, squash, Swiss chard
Rock River Perennial Garden and Greenhouse	Chatham	less than 1 acre	various herbs
Ski Country Farm	Sault Ste. Marie	1 acre	beans, beets, broccoli, cabbage, carrots, cucumbers, eggplant, lettuce, peas, peppers, spinach, tomatoes
Slagle’s Family Farm	Felch	6 acres	tomatoes and squash
Sleepy Hollow Farm	Munising	0.3 acres	kale, leeks, lettuce, onions, radishes, squash, Swiss chard, tomatoes

Each of the 10 farmers learned of the GroupGAP pilot opportunity through the UPFE newsletter. Initial discussions of the project were met with interest, but there was an overall concern about cost to farmers. As the process began, a number of farmers felt overwhelmed at the number of steps and the amount of paperwork involved in the process.

However, there was a general understanding that both supplier and buyers require a level of traceability when entering the wholesale market. Regularly, farmers began the process and were surprised by the amount of paperwork required. Amount of time ranged widely, varying by product.

<sup>4</sup> The ten farms are also listed in the Appendix



“Since it involved food and to be on the ground floor, I thought it would be good just to be on the forefront of the whole thing. And to finish what it was that has been established for the group. I thought there was a benefit just because I was learning.”

— Treasa Sowa, *Treasa’s Treasures, Munising, MI*

At the onset of the interview, the majority of farmers indicated planning to progressively certify each crop for institutional purchase and more as they became financially able. Most were beginning the certification process with what was currently ready and planned to scale up after seeing the process through one time. Farmers responded that they wanted their crops certified because they are selling to hospitals or other institutional customers that required such reliability.

### Program Benefits

Interview responses indicate that those completing certification did so because they wanted to expand the growth of their farm and understand its impact on the market. For some, the SCBG mini-grant of \$500 was an appropriate incentive. For other farmers with the desire to be competitive, the process was seen as an innovative way to help themselves and others. Several farmers also had side projects simultaneously in process: organic certification, Hoophouses for Health,<sup>5</sup> ServSafe,<sup>6</sup> and more. By joining the GroupGAP pilot, these farmers felt they were further expanding options and opening new markets. In addition, the UPFE and particularly Marquette Food Co-Op served as backbone organizations for this project, fostering the collaboration infrastructure and spending significant time with the growers in person and on the phone. The phone calls and meetings with growers helped to assuage concerns about the project and assured the growers they were not in it alone.



“In terms of the market, the new markets will also help us get rid of volume by expanding our buyers but with less travel through options like the UPFE online market.”

— Jason Slagle, *Slagle’s Family Farm, Felch, MI*

<sup>5</sup> F A W. K. Kellogg Foundation-funded project led by MSU CRFS and Michigan Farmers Market Association that provides a loan to build hoop houses, paid back through revenue generated by selling produce to low-income consumers.

<sup>6</sup> A food safety certification offered by the National Restaurant Association.

# Discussion

## Perceptions of GroupGAP

In their interviews, farmers in the pilot were asked what changes they perceived they would have to make to their farm and practices, what actually happened, and what challenges were encountered. All responded that their operation was changed in some positive way: adding a paper towel dispenser at a wash station, transitioning to plastic mulch, or changing lighting covers and adding back flow preventers. One of the most frequently mentioned changes desired was the addition of a covered wash-and-pack station. The majority of participants indicated some difficulty comprehending all the pieces of the process; some noted difficulty with additional record keeping, like adding the crop, the row, and Julian date. It was also noted in the majority of interviews that farm practice methods were confusing because of perceived conflicting suggestions and guidance.

“The manure rule seems like several different sets of guidance—USDA, FDA, and state. There’s not a good level of cohesion between the three.”

— Michael Hainstock, *Badger Creek Farm, Marquette, MI*

After they described what changes they thought they’d have to make given their participation in the pilot, farmers were asked what the resulting impacts would be. There was a general feeling that while it would be more work for one individual or farm with some out-of-pocket expense, there was a benefit



of an increased culture of food safety that would be built and a resource network developed. Some farmers wondered about new regulations that might be enforced, potentially canceling out GroupGAP or making their newly implemented practices inadequate.

Each farmer felt profit was very important, and none of the participants’ long-term goals deviated from their intentions prior to certification. The farmers generally agreed that this GroupGAP pilot program could pay off for them to help create safer products and assist their fellow farmers in recognizing the importance of food safety. For all, it meant larger networks reviewing and understanding their efforts, and for some, stronger momentum to expand their production to markets requiring food safety assurances. Still others felt participation was a way to make necessary modifications to their operations in an efficient and cost-effective manner.

## Challenges to GroupGAP

In spring 2014, farmers were provided a template food safety manual and worked with members of the UPFE to update and customize the manual to their own farm practices. As a part of food safety manual documentation, field logs were kept for traceability reference. Record keeping (a necessary daily activity to stay in compliance) was most noted as a significant challenge of GroupGAP; farmers noted the significant amount of time and effort needed for keeping records and updating them as well as customizing log books. Most found that the actual practices were in line with what they were already doing but necessitated some minor and in some cases time-consuming changes. The group also felt pressure to not let their fellow participant farmers down. While this was a worry, the group pressure also acted as an insurance method to keep each participating farm in daily compliance, adhering to food safety manual and QMS policy.

“The biggest obstacle was paranoia that we have all our policies in place and that we’re performing them on a daily basis.”

— Wendy Gibson, *Sleepy Hollow Farm, Munising, MI*



## Cost-Benefit Analysis

By the end of October 2014, four farms had been USDA audited, costing a total of \$3,450.00. The auditor spent a total of 37.5 hours and charged \$92.00 per hour. This hourly fee included travel, time spent on farms, and paperwork. Additionally, the group's USDA QMS audit was a flat fee of \$1,472.00. The total cost of the GroupGAP audit was \$4,922, or \$492 per farm. While there is not currently a direct comparison, it should be noted that if the four farms were audited individually, each would have paid \$862.50. It also is important to note that if the auditor had made four separate trips (as would have been likely without this collaborative pilot), the cost would have been much higher per farm. Currently, MDARD estimates that an audit would take a minimum of 16 hours for one farm, including travel, time on the farm, and paperwork. At \$92 per hour, that cost is just under \$1,500. Under individual GAP, the USDA also performs additional unannounced visits, which will also increase the cost of GAP certification. Even without the group certification, there is a benefit to farms coordinating the timing of their audit.

The costs of coming into compliance, as indicated by farmers, were relatively minimal. The SCBG mini-grant of \$500 covered most changes. Items purchased to bring farms into compliance included: buckets, spinners, a new refrigerator, and other equipment upgrades. In some cases, such adjustments were necessary; for example, a cracked bucket can lead to contamination, and an old spinner might be inefficient. When considering the overall costs of participation, including the audit, participants were split on either not knowing costs or anticipating the expense to be easily covered by the \$500 mini-grant. Farmers went into the project with an open mind, not knowing what to expect, and found that they mainly kept their practices the same, such as sticking with drip irrigation or using home well water.

As for their time and fees, a few farmers did not begin regularly tracking additional time spent due to GroupGAP procedures, including money spent on upgrades. However, during a November 2014 debriefing, those who did keep track shared that while it took some time to set up the logs and record keeping, once the farmers got in the habit



of using them, the format did not take more than 10–15 minutes per day or about one hour per week to utilize tools provided. At the time of the interview, farmers had as much as \$800 in out-of-pocket expenses. To save on these, farmers offered advice such as finding something already on hand they could adapt for use or purchasing a used item.

It is important to note that the condensed time frame for the pilot also meant activities and associated costs were compressed into a small time window. In consecutive years moving forward, the process could be started earlier and the activities and involvement in certifying could be spread over a longer period of time. This would make the GroupGAP process less onerous for small farmers.

As of late fall 2014, farmers had not yet planned how to cover potential 2015 GroupGAP costs. This was in part due to not knowing the full costs of the USDA and QMS costs in the coming year. When asked how much sales were anticipated to increase from the GroupGAP certification, participant farmers felt sales would increase but did not know to what extent. Farmers stated that while it might not matter in the short term, either at a farm market or at the UPFE Online Marketplace, in several years such certification might pay off as more purchasers required it. In the long run, all farmers hoped it would pay off by opening new markets, providing more credibility, and growing community awareness to support future efforts.

“I think the paperwork should be in such a way so I don’t have different papers for different co-ops. I don’t want to have less crops because of paperwork. It should be tweaked to make this work, because otherwise I’ll get buried beneath more paperwork. Before Cloud, I was carting files between sites. I can’t put a filing cabinet in my car.”

— *Andrea Corpolongo, Wintergreen Farm, Ontonagon, MI*

## Using Improved Technology or Equipment

Farmers know that saving time means more money in their pockets. Most participant farmers felt the appropriate technology could help them do this, but they were unsure how to best assess what is appropriate for their unique situations. For example, when asked if technology could reduce the costs of GroupGAP, several farmers offered up the idea of a smartphone app to assist with record keeping and to keep labor costs down. Currently, most use handwritten records in the fields and on-site, then go back to their computers and update spreadsheets. The changes of additional record keeping processes were new to many farmers, and most were still building a habit of such regular computer use. Helpful forms of equipment discussed included machinery such as a power washer or utility vehicle. Almost all were willing to upgrade their technology or equipment as long as it could be easily transported and operated in the field.

Many farmers used a computer for record keeping and entering field notes, but bookkeeping was relatively limited; used for tallying end-of-year sales, for example. While most participants preferred paper bookkeeping, software packages used include QuickBooks, Microsoft Excel, and Linux. During the November 2014 debriefing and again in March 2015 training, farmers noted that the previous year’s record keeping helped them plan for the upcoming year, providing insight into which outlets they sold at, their volume, and shortage or abundance. This information helped them plan their scale-up for 2015. Using a computer, tablet, or smartphone was not new, nor a difficult business practice for the majority of farmers, although many indicated it was time-consuming. Each farm was willing to upgrade its current technology, but most farmers did not believe much was available to reduce time spent.

## Training

Pilot participants agreed that the most helpful part of joining the group training was the camaraderie and sharing of best practices. When asked what folks expected to accomplish by completing the GroupGAP training, responses centered on market benefits. Some wanted the benefit of an additional certification while others were more focused on achieving the goals set. There was curiosity and desire to stay ahead of food safety requirements for greater access to markets. When asked if there have been any surprises or unanticipated circumstances that have developed, many farmers noted the quantity of things necessary to happen at once, such as having to regularly check cooler temperatures and additional cleaning processes at the same time.

Requests for additional training on record keeping (including tips on consolidating and streamlining log sheets) were made, as well as requests for more demonstrations such as short best practices videos. Farmers were also asked who else should attend the training. Each farmer indicated that food processors, buyers, and aggregators as well as representatives for insurance companies, should be invited.

“If an insurance company goes to it [GroupGAP training] then they’re more comfortable buying from the farmers. They’ll know what quality, safe food is and the farmer’s efforts. Schools should go so they know what they’re getting. Anyone interested in buying from farmers, because how else will they know? I don’t know who else locally knows. Anybody that has contact with the merchandise [should attend] so it continues to be handled appropriately. Everyone benefits to know what’s going on.”

— *Jason Slagle, Slagle’s Family Farm, Felch, MI*



## Group Participation

By agreeing to participate, all members were committed to one another and were accountable to the group. To better gauge this, it was asked how each participant envisions a commitment to food safety from fellow group members. All felt ahead of the curve, connected to and made safer by the larger group network.

“Since we’re a group, we worry about doing our part for the farm and the other farms. As a group, we accomplish this. The network has been the best part. We want to make it work, keep it working, and have it grow. We have the same process for handling produce, and everyone is on the same page.”

— Wendy Gibson, *Sleepy Hollow Farm, Munising, MI*

“Now that everyone’s been through it, it will be so much easier. Being an early adopter, they’ll know, and the pilot leaders will know.”

— Greg Zimmerman and Carolyn Rajewski, *Ski Country Farm, Sault Ste. Marie, MI*

## Local Partners: U.P. GroupGAP Pilot Team

The farmer interview concluded with questions about the UPFE GroupGAP team’s level of support as well as pilot project feedback and questions. The UPFE GroupGAP lead team was composed of Natasha Lantz, Marquette Food Co-Op Outreach Director; Phil Britton, volunteer; Neal Curran, Marquette Food Co-Op Local Food Projects coordinator; and the internal inspector team. Together, this team brought a wealth of experience of on-farm practice, quality management, agribusiness education, and marketing. All respondents in the GroupGAP pilot project indicated that they would work with this team again, highlighting how patient, flexible, and willing they were to “go the extra mile” for farmers. Both the team and farmers exhibited the necessary flexibility to carry out a pilot project and formed a co-learning space where questions and best practices could be explored.

In November 2014, the UPFE coordination team, Marquette Co-op members, pilot farmers, stakeholders, legislative representatives, and USDA staff gathered for an award ceremony and press conference to share with the greater community results of this GroupGAP study, its implications, and next steps. Farmers received their official USDA certification and were acknowledged by the UPFE and partners for their dedication to the process, commitment to the group, and successful auditing. This awareness-building event and debriefing ended with a roundtable and next steps discussion. Both the sampled farmer participants and their QMS systems received USDA approval and were certified for 2014–2015. Participating farmers wanted to know future funding opportunities, pilot project next steps, and scheduled market trainings. Networking and the sharing of tips were also requested.

Utilizing farmer feedback from the 2014 process and from UPFE and USDA input, the food safety manual template and QMS were revised and updated in early 2015. It was anticipated that a second GroupGAP certification process would begin during the spring of 2015, utilizing the pilot group’s expertise and feedback. However, in February 2015, after much consideration, the UPFE decided to continue with this project but not administer a pilot group. It was determined that much of the pilot study’s expenses were absorbed by outside funders and that associated Marquette Food Co-Op staff time and resources to run the second year were not sustainable. The UPFE will continue to participate in the GroupGAP Community of Practice and to teach GAP food safety planning and management to its vendors and to other farms in the U.P. UPFE will also help coordinate the auditor’s time in the U.P. so that he or she can visit as many farms as possible in one trip to reduce travel costs associated with individual farm audits.

# Key Lessons Learned



The UPFE GroupGAP pilot study was intended to explore opportunities and obstacles associated with a novel approach to farm food safety management with an end goal of small farmers assuring safe food at a reasonable cost. In this study, it was found that GAP certification could meet group needs working with small and very small farms. The study also found GroupGAP to be affordable. While there is not a direct farm or GroupGAP audit pricing comparison, had each participating farm been individually audited, the total price of certification would be significantly higher than the total \$492 per-farm cost. Direct costs to each farm for individual certification can be estimated based on mileage and the hourly rate of inspection that necessitates a USDA inspector to drive to and tour each farm.



Within this project, the cost of USDA staff time and resources was significantly reduced. Including QMS manual audit and the costs of four farms inspected, it is estimated that individual farm savings through GroupGAP certification versus individual GAP certification is about \$700. It is important to note that each farm had group support and an internal system assisting to build its food safety plans.

It is this group support at the farm level and through the organizational partnerships that were critical in making the GroupGAP pilot a success. Through collaboration of key stakeholders and local and statewide partners, a Michigan learning community is becoming established and farmers are building a knowledge network among themselves. The first meeting of this Michigan community of practice occurred on March 2, 2015. Within the farming knowledge network, this group support approach was also able to shift focus from peer pressure-like

thinking such as “What if one of us fails?” to “What systems does the group have in place to bring a noncompliant farm back into compliance?” This is an example of the broader thinking and systems-based approach that GroupGAP helps cultivate within the culture of food safety among farmers.

Each farm must weigh and value its staff and resources toward food safety plan implementation. While a general cost-savings of GroupGAP over individual GAP certification has been demonstrated, it is not fully known if this savings will also increase farmers’ profit by helping them access new institutional markets. During the 2014 pilot project year, UPFE staffing time also must be taken into account. **Between attending pilot project meetings and calls, creating the QMS and food safety manual, audit and reporting time, as well as farmer mentoring and question and answer support, more than 1,000 UPFE staff hours were logged. Calculated at an average hourly rate of \$25 per hour, this local support cost for the pilot is \$25,000.**

Future GroupGAP programs based on the UPFE pilot, or other pilot programs in Michigan, will likely not require as large a time commitment from collaborating partners because of the groundwork laid by this initial study. Specifically, trainings are already in development between the USDA and pilot sites tailored to Michigan’s unique growing region. Additionally, the QMS and food safety manual have been revised and streamlined to incorporate 2014 pilot farmers’ feedback, tailoring them for more efficient use. Several U.P. GroupGAP graduates have also stepped forward to mentor future interested participants to create and implement farm safety and record-keeping practices. In spring 2015, Michigan local foods distributor Cherry Capital Foods, with support from the Wallace Center, is joining the pilot and assisting farms desiring GroupGAP certification in the Northern Lower Peninsula as they recognize food safety certification needs of their purchasers. A distributor of Michigan products, Cherry Capital has a compliance team in place and capacity to offer internal inspector and farmer support as well as QMS and food safety manual development. Research will continue through 2015 by recruiting a cohort based in Mid-Michigan with emphasis on certification benefits and farmer participation.

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## Appendix - List of U.P. Pilot Farms

- Anya Farm, Chassel
- Blueberry Pier, Menominee
- Hannah's Garden, Marquette
- Reh-Morr Farm, Eben Junction
- Rock River Perennial Garden and Greenhouse, Chatham
- Ski Country Farm, Sault Ste Marie
- Slagle's Family Farm, Felch
- Sleepy Hollow Farm, Munising
- Treasa's Treasures, Munising
- Wintergreen Farm, Ontonagon

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