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GROWER LIAISON MODEL REPORT

Local Food Safety Collaborative

The United Christian Community Association

National Farmers Union



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Purpose

The purpose of the Grower Liaison Model (GLM) was to assist limited resource and socially disadvantaged fruit and vegetable farmers in Alabama & Mississippi with their understanding of the Food Safety Modernization Act (FSMA) regulations and food safety best practices. GLM goals were to:

- 1) Introduce FSMA to farmers and encourage these farmers to take advantage of Produce Safety Alliance (PSA) Grower trainings in their area.
- 2) Work closely with community groups and to identify farm sites willing to demonstrate food safety best practices.
- 3) Work closely with local agencies and community groups to provide on-site workshops that address food safety within the context of the urgent issues that limited resource and socially disadvantaged farmers face.

Stakeholders

As of 2012, Alabama and Mississippi are home to 5,292 produce farms; 3,203 and 2,089, respectively (AMS, 2012). The U.S. Department of Agriculture (USDA) defines a socially disadvantaged group as a group whose members have been subject to racial or ethnic prejudice because of their identity as a member of that group. Small and limited resource farmers make up over ¾ of all farmers in Mississippi and Alabama (Molnar, Bitto, & Brant, 2001). Certain counties within Alabama and Mississippi have a proportion of farmers belonging to a socially disadvantaged group that is much higher than the national average. The current GLM demonstration sites are in these counties. In 2012, 24% of all farmers in Marengo County, Alabama, 35% of farmers in Jefferson Davis County, and 43% of farmers in Sumter County belonged to a socially disadvantaged group. All these farmers self-reported as Black. Small and limited resource farmers make up over ¾ of all farmers in Mississippi and Alabama. In rural areas, poverty tends to be more concentrated, especially among Black residents. The official poverty rate in the United States in 2018 was 11.8% (Semega, Kollar, Creamer & Mohanty, 2019). In Sumter County, Alabama 35.9% of people of all ages live in poverty. In Marengo County, Alabama 22.8%. In Jefferson Davis County, Mississippi 32.5%. Finally, in Chickasaw County, Mississippi 18.2% of all people live in poverty (U.S. Census Bureau, 2019).

Problem

Most of these stakeholders are either not covered by the FSMA Produce Safety Rule (PSR) requirements or fall into the qualified exempt category. However, these stakeholders, as public citizens and taxpayers, deserve access to food safety education in order to gain access to markets, increase farm viability, and produce safe food for consumers. By neglecting to provide this education, it is possible that these stakeholders could inadvertently put the health of their own families and communities at risk. Historically, socially disadvantaged, and limited resource growers in this region have not had the same level of access to credible, reliable, and consistent information, or resources. It is possible that these groups are missed by more traditional education and outreach methods used by local agencies or universities.

Addressing the Need

The United Christian Community Association (TUCCA) has served limited resource and socially disadvantaged individuals in Alabama and Mississippi for over twenty years. In order to address

the problems identified above and meet the increasing need to help farmers with food safety, TUCCA and its partners proposed to provide specialized, on-farm assistance. These stakeholders also shared that hands-on demonstrations are the most beneficial type of learning for them. In areas where general literacy levels are lower than the national average (14.5%)¹, the use of on-farm demonstrations is critical.

In addition, by installing food safety infrastructure on demonstration sites, farmers can see options for improving food safety on their own operations. GLM is a comprehensive approach for supporting limited resource and socially disadvantaged farmers' understanding of the evolving food safety landscape, and where they fit into that landscape. It is essential to understand the barriers that these groups face, i.e. access to quality information that stakeholders can understand/use, as well as economic constraints, in order to provide programming and resources that can address food safety education within this framework.

Description of Grower Liaison Model

The GLM operated among competing needs and values, yet its core mission is to address the lack of information or awareness about FSMA and food safety. In doing so, GLM sought to stimulate long-term behavior change to improve food safety practices among limited resource and socially disadvantaged farmers. The GLM involved the strategic use of farm demonstration sites to provide a place where stakeholders can visit a familiar, convenient location to view best food safety practices and experience hands-on food safety instruction from trusted community leaders/partners. These stakeholders are primarily concerned with making a profit by farming in order to supplement the family income. New rules and laws cut into what small profits these farmers work so hard for. Therefore, the GLM demonstrated how agencies and institutions could partner with farmers to help offset the cost of installing low-cost and low-tech food safety infrastructure.

TUCCA defined a demonstration site as “an active produce farm where a working relationship has been cultivated between the farm family/organization and the partnering institution.”

A demonstration site could transform a community by:

1. Cultivating food safety role models/ambassadors, engaging the farming community, deepening relationships, and broadening networks.
2. Nourishing community members with fresh and local produce.
3. Promoting inter-related farm health topics, e.g. soil health, agricultural water testing, business planning.

“GLM is an entry point to information and gate-keepers... We are guiding farmers on how to access resources. We must hold their hands. They need to learn how it works. We are creating ambassadors. We have to introduce them to the agencies.”

Andrew Williams, TUCCA

¹ General literacy rates: Sumter County= 28%; Marengo County = 22% (County Health Rankings & Roadmaps, 2012).; Jefferson Davis County= 24%; Chickasaw County= 22% (County Health Rankings & Roadmaps, 2012).

4. Providing hands on examples of production practices and funding routes for them, e.g. drip irrigation and high tunnel systems via USDA/Natural Resource Conservation Service (NRCS) Environmental Incentive Program (EQIP).
5. Hosting agricultural workshops throughout the year that introduce resource people and educators, as well as have community members share knowledge.
6. Introducing future farmers to food production in a safe, affordable, and accessible way.
7. Offering farmers, the demonstration site farm as a safe learning space, educational destination, and community gathering place.
8. Developing sites that increase property values and decrease “rural flight.”

“Small-group learning is important because with too many people around, people [feel like they] can’t be honest with us and share their situations... tax liens, child support payments, not being able to afford tax liabilities from a 1099, or USDA program participation affecting financial benefits of farmer veterans. We are dealing with all the barriers.”

Andrew Williams, TUCCA

Approach

The principal elements of implementing the GLM were:

1. **Outreach:** TUCCA conducted outreach to socially disadvantaged and limited resource farmers as well as community and/or farm organizations in the region serving this audience. TUCCA helped introduce farmers and organizations to the FSMA Produce Safety and Preventive Controls Rules to create awareness and understanding of the new and changing regulations. TUCCA conveyed the requirements for this specific type of produce safety training, as well as the benefits of incorporating produce safety best practices could bring. TUCCA established community partnerships and identified four demonstration sites to deliver on-farm food safety education. This outreach led to opportunities to host Produce Safety Alliance (PSA) Grower Trainings, food safety workshops, and FSMA/produce safety overviews at conferences where the target audience or farm organizations were present.
2. **Engagement:** TUCCA engaged directly with farmers and learned how to motivate them to prioritize food safety on their operations. Time after time, TUCCA heard from limited resource and socially disadvantaged farmers in this region that they cannot focus on food safety alone when they are trying to feed themselves and their families. This group’s primary focus was building a profitable operation. Food safety was one concern among many. TUCCA continued meeting with farmers and organizations in order to listen to their needs, plan events that could meet these needs, and build trust. Therefore, TUCCA began to incorporate whole farm health topics such as complementary USDA programming and farm business health. Examples of specific topics that farmers requested included:
 - a. Teaching the USDA eligibility process to participate in USDA programs
 - b. Proving land ownership and control.
 - c. Obtaining a tract & farm number to locate farm.
 - d. Learning USDA/NRCS application and qualification process for EQIP and Conservation Stewardship Program (CSP).

- e. Understanding the Farm Service Agency (FSA) micro-loan program application and qualification process.
3. **Development:** Four sites were selected for infrastructure improvement/development to demonstrate on-farm food safety practices to the target audience². TUCCA created avenues for greater collaboration among farmers, educators, and community partners to collaborate on food safety by involving various groups in this selection process. With assistance from National Farmers Union (NFU) and PSA, TUCCA co-developed food safety plans with the farmers and created specific infrastructure improvement plans for each site. This individual attention helped host farmers and farm organizations increase their food safety knowledge. TUCCA aimed to empower host farmers to lead and communicate to their peers the importance and value of food safety.
 4. **Education:** TUCCA offered educational on-farm workshops/tours for farmers in the region including PSA Grower Trainings, food safety workshops, and “field days” or tours of the demonstration sites. Attendees of PSA Grower Trainings held at the Rural Training and Research Center and the Mississippi Minority Farmers Alliance farms were also able to tour the demonstration sites³.
 5. **Follow-up:** TUCCA continued follow-up with the demonstration sites, provided labor, technical assistance, and general support throughout the course of the project. After farmers participated in educational events, TUCCA offered individual on-farm consultations or follow-up meetings. Topics included: Implementing food safety practices, writing a farm food safety plan, or guidance on applications to USDA programming that supports overall farm viability and food safety. TUCCA also made a point of connecting workshop participants with experts from agencies or local businesses that presented during workshops.
 6. **Evaluation:** TUCCA collected surveys from training/workshop participants and collected feedback during follow-up meetings or one-on-one consultations. Feedback was essential to inform service providers what was working and what was not working for participants. TUCCA leveraged feedback and testimonials by inviting training/workshop participants to testify at subsequent trainings or workshops on their experience.

“This is what I tell farmers: ‘Stuff is going to happen. You have to persevere. You will need to be resilient.’”

Darrell McGuire,
TUCCA

Demonstration Site Selection

TUCCA selected demonstration sites so communities could have infrastructure and partnerships in place to continue food safety education after project-based funding ends. Demonstration sites were selected based on the following criteria:

² See Demonstration Site Selection section.

³ See Activities at Demonstrations Sites section.

1. **Accessibility:** The location of demonstration sites must be safe, easily accessible by vehicle, easily identified, and/or familiar to target audience. Ideally, a site had access to an indoor learning facility nearby or on-site.
2. **Willingness:** Land-owners (host farmers and organizations) of demonstration sites must be willing to allow groups of farmers to visit the property to learn. They must be able to commit time to GLM, i.e. assist in outreach and/or co-host educational workshops. Land-owners must be willing to absorb long-term costs or liability risks associated with on-farm infrastructure improvements, e.g. electricity bill for CoolBot installation.
3. **Capacity:** Land-owners (host farmers or organizations) of demonstration sites must be able to maintain a demonstration site. Ideally, they possess a high degree of influence within an existing farmer network that reaches the target audience. They may also possess public-speaking skills and/or a teaching/preaching background that makes them strong, compelling presenters. They may have connections to nearby Universities or agencies via program or research participation and may have a working knowledge of local resources, as a result. They must be financially stable, so they are less likely to be adversely affected by unforeseen costs or events.

“We have to make wants versus needs very clear... resources can be overwhelming.”

Orlando Trainer,
Oktibbeha County,
Supervisor, District 2

The four demonstration sites selected for GLM in Mississippi and Alabama included both host farmers and organizations:

1. PI88 Farm in Prentiss, MS.
2. Mississippi Minority Farmers Alliance (MMFA) farm in Okolona, MS.
3. Rural Heritage Training and Research Community Center and farm in Thomaston, AL.
4. Federation of Southern Cooperatives Training and Research Center farm in Epes, AL.

Activities at Demonstration Sites

The on-farm infrastructure improvements made to demonstration sites were designed to help on-farm workshop participants see and learn about best practices to carry out on their own farms. Andrew Williams, TUCCA, described the opportunity of educational events at demonstration sites as follows “Participants can see what other people are doing, what they need to be doing, what they could be doing, and find out what they might be interested in doing.” The demonstration sites included examples of what some operations must consider and implement in order to be economically viable and competitive in the region. Within the target audience, it was essential to highlight the potential for increased farm viability and profitability by implementing better food safety practices.

For example, permanent employee/visitor hand-washing stations were installed at demonstration sites for participant observation. At the MMFA site, presenters explained how CoolBot systems could increase shelf-life and maintain quality of produce that is safe for consumption. The MMFA, Rural Heritage, and Federation demonstration sites were outfitted with permanent

micro-irrigation systems and during educational workshops, farmers were instructed by Natural Resource Conservation Service (NRCS) agents on how to use drip tape, while TUCCA staff explained the co-benefit of using this method as a lower-risk, cost-shareable food safety option. Other demonstration site assistance included: food safety plans, high-tunnel maintenance, fencing for animal exclusion, and break areas that could be leveraged for groups touring the farm.

“A lot of people don’t know how to use their books [Produce Safety Alliance Grower Training Manuals]. This group works best by hands-on learning.”

Darrell McGuire, TUCCA

Educational workshops, or “field days,” were designed to accommodate small groups which seemed to improve the quality of teaching and learning. Farmers from limited resource and socially disadvantaged groups felt more comfortable engaging, asking questions, and sharing their personal problems or experiences. Most farmers in attendance were not covered or qualified exempt from the PSR, but TUCCA encouraged the adoption of food safety best practices into their existing operations as these farms continued to build capacity or attempt to scale up. At these workshops, TUCCA demonstrated the “Do’s” and “Don’ts” of food safety practices.

Farmers often reported feeling fatigue, confusion, and a sense of overwhelming about the amount of information they needed to find and be aware of. In response, TUCCA designed workshop agendas that maximized the amount of information that participants were exposed to in one event. NRCS, Extension agents, etc., spoke on a variety of farm viability/health topics, in order to help the farmers, feel justified in spending time at the workshop⁴. Specific examples were offered that were relevant to participants present. Private follow-up consultations were also offered to workshop participants. Due to TUCCA’s consistent, open collaboration with NRCS and Extension to co-deliver programming, food safety is more frequently considered as an item to include in workshops hosted by other organizations.

Methods for Delivering Food Safety Education

Building trust with community members, as well as “gate-keepers” to information and resources, is the foundation of GLM. An intense amount of outreach, engagement, and assistance was given to a small sample of limited resource and socially disadvantaged farmers that have not had equitable access to information or resources in life or work. The GLM approach to delivering food safety education and its subsequent qualitative and quantitative trends are identified in this section.

Approach

1. **Pre-Workshops:** TUCCA held community meetings to gauge the needs and barriers of limited resource and socially disadvantaged farmers. TUCCA identified organizations, like churches or community centers, that had an existing focus on assisting limited resource/socially disadvantaged farmers in order to leverage those relationships. These meetings provided an opportunity to get buy-in from farmers and for farmers to have a sense of ownership and pride in their continued education. In order to solidify farmer

⁴ See Appendix B.

loyalty and influence behavior change, TUCCA often invited “farmer ambassadors” to testify at these meetings or at workshops. For example, a farmer who went through a PSA Grower Training would be invited to speak about what they learned. If a farmer had recently gone through a Farm Service Agency loan application process, they were invited to discuss those experiences. The community meetings are examples of how outreach shifted into deep community engagement within the GLM.

“Everyone asks ‘What’s the point?’ TUCCA has been educating the farmer and the consumer to adopt these practices.”

Harvey Gordon, Mississippi
Minority Farmers Alliance

2. **Workshops:** TUCCA endeavored to ensure that the concept of whole farm health was conveyed in language that the target audience would understand and appreciate. TUCCA looped in external agencies and partners to ensure 1) delivery of quality information from experts, 2) strong attendance and participation, and 3) introduction of the target audience to the “gate-keepers”. TUCCA approached crafting workshop agendas with the mindset, “What do we want this audience to gain?” Stakeholders for this region included:
 - a. Extension Agents
 - b. NRCS Agents
 - c. Farm Service Agency Agents
 - d. Forest Service Agents
 - e. Pastors
 - f. Local government representatives
 - g. Inspectors
 - h. Experts or consultants on farm financials, land management, farm insurance, farm transitions/transfers, whole-farm diversity (goat, hair, sheep, small cattle operations), etc.

Post Workshop Evaluations

TUCCA and its partners used follow-up consultations and a variety of assessments to gain feedback on workshops. The group endeavored to minimize meetings that covered only one agency or institution’s program or service. Together, the group of partners scheduled one meeting or workshop for a community and invited staff to highlight each partner’s services or resources. Based on the needs of the audience the appropriate agency or institution was looped in whenever possible.

1. **Workshop Assessments:** Generally, TUCCA tried to assess (orally or in survey format) the following from workshop participants: 1) what they learned; 2) what they are doing differently; and 3) asked for the farmer to share their experience. Depending on the topics and presenters involved, a survey was used to gauge satisfaction, baseline knowledge of food safety needs, and gather specific demographic data (farm size, type, income, etc.) from the workshop participants *only* if they requested a field visit.

Evaluation surveys designed by partner agencies and universities were passed out to workshop participants at the events. TUCCA stressed the importance of providing

feedback to help improve future workshops for participants' peers. Sometimes the staff had to help participants understand the meaning of the questions on the evaluation form. TUCCA collected surveys from training/workshop participants. Feedback was essential to inform service providers what was working and what was not working for participants. Comments were collated and analyzed by TUCCA staff, and changes were reflected in subsequent workshops. TUCCA leveraged feedback and testimonials by inviting training/workshop participants to testify at subsequent trainings or workshops on their experience. Evaluation Surveys were designed by these groups:

- a. Tuskegee Extension Program
 - b. Alabama Cooperation Extension System
 - c. NRCS
2. Consultations: Field visits and one-on-one consultations with farmers included the following considerations:
- a. Obtain contact information, farm location, and schedule a field visit.
 - b. Obtain farm maps and use the "Land Glide System" to ensure that the farm can be found on the ground with the landowner.
 - c. Walk the land with the landowner and listen to his or her concerns while taking notes.
 - d. When the field visit is complete, review the notes with the landowner, offer solutions and best practices based on the landowner's decisions concerning land use. At this point the landowner will decide whether he or she wants to participate as it relates to USDA programs.
 - e. Ensure landowner has proper documentation accessible, e.g. copy of deed.
 - i. Obtain a track & farm number so USDA can identify the farm, if needed.
 - f. Offer to help facilitate contact with appropriate agency, e.g. USDA/FSA or USDA/NRCS.
 - i. Offer to be a witness during process and offer to take peers so they can learn from this process.

"We have a market for produce. Consumers are asking for it... We can wash these vegetables and take them home. We want to show what people are doing now, what people *can* do, and get people interested in doing more."

Audrey Haskins, Federation of Southern Cooperatives

Conclusion

The Grower Liaison Model was intended to be a community-based solution to bring food safety education and training to historically underserved, limited resource and socially disadvantaged agricultural communities in the Alabama and Mississippi region.

Benefits

GLM incorporated food safety into two areas that farmers and community members care about most: healthy communities and farm viability. TUCCA was most successful at "getting food

safety on the agenda” and achieving a baseline level of awareness of food safety risks, consequences, and best practices. The GLM had several additional benefits:

1. **Direct Assistance:** Impact cannot be measured by numbers alone for this style of outreach and education. GLM provided an intense level of assistance to communities in need. All four demonstration sites exist in food deserts and three sites have found ways to make sure that the food produced reaches vulnerable community members.
2. **Building Community:** GLM has developed stronger coalitions around existing farms and organizations. Inviting agencies, farmers with different skillsets, and community organizations to participate in workshops helped to bring people of different races, classes, and backgrounds together to learn from one another.
3. **Improving Trust and Access:** By being honest, realistic, and authentic with landowners TUCCA was able to prioritize being an advocate for the farmer on a broad scale. While food safety was the goal, being willing to address other issues kept buy-in. GLM brought financial resources to the table to help the demonstration site farmer/organization and ensure investment and buy-in throughout the process, e.g. presence at workshops, infrastructure improvements, etc.
4. **Flexibility:** GLM can adapt to community needs readily. They can provide individual support (e.g. covering meals or transportation costs), whereas local/state institutions counterparts may not have the flexibility to do so. GLM can mitigate the immediate financial stress of attending a workshop for participants.

“We can’t leave people behind – it’s hard work and takes a lot of time. It may not be as broad of an impact [quantity], but it’s an intense amount of assistance to this small community.”

Chris Jones, Mississippi Minority Farmers Alliance

Lessons Learned

1. **Relationships:** The success of GLM is dependent on strong stewardship that incorporates personal and professional experience and connections. Maintaining deep ties to local schools, community centers, churches, farm organizations, local universities, and local federal agency branches is essential. It takes time to build trust with farmers that have historically been underserved or neglected. Relationship-building is the foundation of the GLM process. Although connecting this audience to gate-keepers is beneficial, food safety may or may not have been the primary lesson learned from educational workshops co-hosted with local agencies and universities.
2. **Evaluation:** Since the GLM integrates topics beyond food safety, some agencies bring their own evaluations due to funder/university requirements. It was challenging to motivate participants to complete surveys due to survey fatigue. It is also important to note that due to varying education levels, participants were not always willing or able to fill out a survey independently. A more robust evaluation of workshops and services provided is needed in order to better measure performance, efficiency, and effectiveness

of services offered. Examples of where correlations might exist, but more data is needed include target audience being unaware of what resources exist, confusion about how to use existing resources, and being unable to access existing resources.

3. **Capacity:** The amount of technical expertise and supportive assistance needed to implement GLM was not anticipated. Sites were considerably spread out making it difficult for personnel to carry out and monitor work at demonstration sites. Two on-the-ground staff were not able to serve all the food safety needs of the farmers living and working in four of the poorest counties in Alabama and Mississippi. The up-front and on-going investment required (money, time, knowledge, and skill-building, etc.) to develop the capacity of the organization(s) and farmers conducting this work is high when compared to the number of stakeholders impacted. For programming to succeed in the region, funding for equipment, a high level of monitoring of project expenses/budget, and firm community buy-in and commitment are required.
4. **Facilities:** An indoor classroom or covered area is needed for workshops. Nearby access to an indoor facility or covered area helps to offset common problems that arise due to weather variability or access to restrooms. Creating opportunities for other community groups to benefit from GLM educational events is also important. For example, even though many churches may not charge for use of their facilities or services, e.g. providing light snacks, GLM provided some compensation.

“The calling is to change the mindset of the people. Success is when the influential farmer can talk to his or her peer group about food safety.”

Andrew Williams, TUCCA

Barriers

History, culture, and the social, political, and economic conditions that make up the human experience in this region cannot be ignored when attempting to influence behavior. At its core, GLM is about community outreach and engagement, which means the following factors must be considered to maximize success:

1. **Hierarchy of Needs:** As discussed earlier in this report, this audience is balancing a variety of urgent needs and food safety may or may not ranking within them. GLM works with stakeholders that are facing urgent needs and seeks to address multiple problems within historically oppressive systems for this audience. For this reason, TUCCA has always been mindful of how information is presented to this audience. Within GLM, TUCCA acknowledged this landscape of needs that exists, demonstrated the produce safety requirements, and communicated the potential short and long-term value of implementing food safety best practices.
2. **Resources:** Not dissimilar to the farming profession, a lack of time, money, labor, knowledge, skills, ability, and/or infrastructure, as well as adverse events, e.g. flooding, hurricanes, etc., can easily impede this work.

3. Regional Poverty: Farming is often a supplemental income because many farm families in this region must work multiple jobs to survive. The inability to seek out improvements, assistance, or workarounds to improve food safety is almost always tied to the underlying issue of poverty. Budgeting may not be an option when farm families are unsure of the amount or timing of revenue coming into the household or farm business.
4. Financial Instability: For this group of stakeholders, finances are limited, and the costs of ongoing education pose a financial burden. In addition, the up-front costs and on-going maintenance costs, e.g. utility bills for electricity and water, for equipment installation have not been quantified or measured for the demonstration sites.
5. Education: Services and resources will need to accommodate for varying levels of education among community members and workshop participants.
6. Commitment: Building trust and gaining a farmer's commitment to serve as a demonstration site can be difficult. Many individuals were approached about being selected but could not commit due to either lack of trust or not seeing the value of the assistance. Farmers must be willing to allow educators, peers, and potentially government representatives on their operation. Also, serving as a demonstration site may not be an economically viable option. This barrier is the principal reason that farm or community organizations are home to three of the four demonstration sites.
7. Inconsistency: Inconsistent practices, service delivery, or varying levels of expertise/experience from agencies working across counties presented challenges. TUCCA recommended that landowners request a receipt of service from agencies if there was doubt or concern.

Future Opportunities

When it comes to food safety outreach, education, and training in limited resourced, socially disadvantaged communities in this region, GLM has only scratched the surface. Included here are 1) opportunities for improvement of GLM and; 2) recommendations for expanding GLM.

1. Continuation: TUCCA could continue to help farmers and community organizations, manage their relationships with information gatekeepers, and provide assistance over time.
2. Scale: While the GLM could be repeated both in this region or across the country, sufficient personnel capacity and community networks are essential to making GLM function for its audience. A potential solution is to define a specific area and invest in only one or two demonstration sites. Increasing the frequency of on-site educational workshops held may off-set the potential issue of having to travel farther to attend a workshop. Alternatively, infrastructure improvements could be part of a larger team effort or contracted out.

3. Holistic Approach: While addressing multiple needs at the same time can complicate evaluation, an integrated approach to farm education and overall community health should continue in order to meet the needs of a community. At the local level, there may be more opportunities to combine food safety with farm topics like conservation, nutrition, farm health, etc. Examples for continued exploration from this project include:
 - a. Mississippi Minority Farmer's Alliance (MMFA)'s mission is to educate farmers on NRCS programming; what exists and how to leverage these resources.
 - b. The Federation of Southern Cooperatives helped people to create a farm business plan.

4. Engage Youth: In an effort to build a food safety culture in rural communities, there's an opportunity to teach and bake that learning into existing curriculum related to food, nutrition, and farming. "We are building and nurturing [community] in a rural area...If we can excite kids about farming then maybe they'll stay."- Board members, Alabama Rural Heritage Community Center. TUCCA helped to develop a school garden in a small, rural public school near the Rural Heritage demonstration site. While instructing on production practices, they also discussed food safety with third, fourth, and sixth graders. Everything that was harvested went to the school cafeteria where the elementary and middle school students were able to enjoy the food they grew. This concept was totally supported by the system administration.

5. Feedback: GLM workshops and demonstration sites have increased peer to peer learning and access to informational experts. Direct feedback is the cornerstone of continuous learning and improvement. These workshops also create pathways or provide a forum for government institutions and subject matter experts to receive requests and feedback from limited resource and socially disadvantaged farmers.

Acknowledgements

TUCCA hopes to continue to build relationships and provide avenues for food safety education because they are an organization committed to continuing the legacy that family farmers in the community have built in this region. TUCCA would like to thank Kristin Woods, Ph.D., Juan Silva, Elizabeth Miles, Chris and Carolyn Jones, Ozell White, The Federation of Southern Cooperatives, The Rural Heritage Community Center, the Natural Resources Conservation Service staff in Alabama and Mississippi, the Tuskegee Extension program staff, the Alabama Cooperative Extension System staff, and the NFU staff for their support.

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Appendix A: Sample Survey



Workshop Title

Date: 8/17/2019 County: Jefferson Davis County

Location: Ezra Garner Building, Prentiss MS

Please circle your response to each item.	Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
1. The instructor					
a. was knowledgeable of the subject matter.	SD	D	N	A	SA
b. related program content to real-life situations.	SD	D	N	A	SA
2. The content was					
a. relevant to my needs.	SD	D	N	A	SA
b. at an understandable level.	SD	D	N	A	SA
c. well-organized.	SD	D	N	A	SA
d. based on credible, up-to-date information.	SD	D	N	A	SA
3. Attending this program was worth my time.	SD	D	N	A	SA
4. I would recommend this program to others.	SD	D	N	A	SA
5. I increased my knowledge of the topics covered.	SD	D	N	A	SA
6. I learned new skills related to the topics covered.	SD	D	N	A	SA
7. I will use information I learned in this program.	SD	D	N	A	SA
8. I will tell others about what I learned in this program.	SD	D	N	A	SA

9. The most important thing I learned or gained through this program was:

Food Safety

10. One specific thing I plan to use or apply as a result of this program is:

Micro Irrigation Drip System

11. When I apply the information I learned in this program, the economic impact will be (check all that apply):

- Saving money – approximately \$ _____ per _____ (e.g., acre, person, field, pond, etc.)
- Making money – approximately \$ _____ per _____ (e.g., acre, person, field, pond, etc.)
- Don't know

12. How much of the content covered did you already know?	None	A Little	Some	A Lot
13. How many of the resource materials will you use?	None	A Little	Some	A Lot
14. How well did the information presented meet your expectations?	Not at All	A Little	Some	A Lot

15. Other topics that would be of interest to me in future workshops are:

****Thank you for your response!!! Please write any additional comments on the back.****

Appendix B: Sample Workshop Agenda

Food Safety and Natural Resources Workshop
Saturday, August 17, 2019
Ezra Garner Memorial Market Building
26 Airport Road
Prentiss, Mississippi
Agenda

- 8:00-8:30**.....Registration
- 8:30 – 8:35**.....Meeting Call to Order.....Elvert Cole
NRCS District Conservationist
- 8:40 – 8:45**.....Invocation & Welcome.....Pastor Ozell White, Owner PL88 Farm
- 8:45 – 9:15**.....NRCS Update.....Dennis Jones
NRCS Area Conservationist
- 9:15 – 9:30**.....Farm Service Agency.....Rebecca McKenzie
.FSA County Executive Director
- 9:30 – 10:00**.....Food Safety.....Britton Walker, Outreach Coordinator, Produce Safety Division
Mississippi Department of Agriculture and Commerce
Darrell McGuire, Lead Trainer
Local Food Safety Collaborative
- 10:00 – 10:30**.....Unmanned Aerial Systems in Agriculture.....Louis Wasson
Senior Extension Associate, Precision Agriculture
Mississippi State University Extension Service
- 10:30– 11:00**.....Produce Marketing
- 11:00 – 11:30**.....Resource Management Planning.....Craig B. Johnson
Resource Conservationist
- 11:30 – 12:00**.....Growers Liaison Model.....Andrew Williams, CEO
Deep South Food Alliance
United Christian Community Association
- 12:00 – 12:30**..Evaluations/Lunch/Networking/Closing Remarks.....Thomas Brewer, County Director
Jefferson Davis County Mississippi State University Extension Service

Sponsored By:

Mississippi State University Extension Service
USDA/Natural Resource Conservation Service (NRCS)
USDA/Farm Service Agency (FSA)
Local Food Safety Collaborative (LFSC)
The United Christian Community Association (TUCCA)



Appendix C: Key Components to Replicating the Grower Liaison Model

Recommended Target Audience for GLM Workshops

1. Limited resource farmers.
2. Socially disadvantaged farmers.
3. Extremely rural farmers.
4. Small diversified farm operations.
5. Small farms or gardens interested in scaling up.
6. Small farms or gardens providing produce to community members, especially vulnerable populations, e.g. the elderly and children.

Milestones

Major milestones for successful completion of GLM are outlined here:

1. Determining interest level and needs. Estimated 16 hours per site.
2. Identify key community stakeholders and partners. Estimated 4 hours per meeting.
3. Identify demonstration farm sites. Estimated 4 hours per site.
4. Complete documentation: Lease agreements, liability waivers, insurance, etc. Estimated 20 hours per site.
5. Draft farm plans (food safety, conservation, etc.) and associated budgets. Estimated 15 hours per site.
6. Build days (fence repair, irrigation system installation, etc.). Estimated 50 hours per site.
7. Find partners/experts to co-deliver workshops. Estimated 15 hours per workshop.
8. Conduct outreach/promote upcoming workshops. Estimated 15 hours per workshop.
9. Hold educational workshops. Estimated 10 hours per workshop.
10. Farm production and maintenance. Estimated 50 hours per site.

Considerations for GLM Demonstration Site Selection

Above all, a host farm needs to understand the expectations and obligations to becoming a GLM demonstration site. An organization should ask these questions to determine if a demonstration site would be desired by the community, utilized by farmers in the region, viable for educational workshops, viable for crop production, and sustainable over time.

1. Does the farmer have the resources available to be a demonstration site?
 - a. Are they financially stable?
 - b. What equipment is needed and what equipment already exists?
 - c. What knowledge, skills, abilities (KSA) are needed and which KSAs already exist?
 - i. Experience in different types of crop production or livestock raising, community organizing, education, food safety, construction, participation or knowledge of government agriculture programming, are desirable and beneficial.
2. Does the farmer have the influence to gather other farmers to workshops?
3. Does the farmer have the time to help plan and host workshops?

- a. Are they willing to sign an agreement for this time and access to their property?
4. Are they willing to take on liabilities or unforeseen risks?
 - a. Are they willing to have all types of visitors (including government representatives and/or the funders) visit their property for workshops?
5. Are they accessible or visible to other farmers?
 - a. Proximity to major transportation, schools, churches, i.e. familiar gathering places that are regularly accessed.

Infrastructure

This is a sample list of infrastructure installations or improvements that have two-fold benefits: Enabling a safer, more “visitor friendly” learning environment while optimizing and reducing risks regarding crop production and storage.

1. High tunnel
2. Handwashing station
3. Restroom
4. Designated covered “break” area
5. Permanent irrigation system
6. Ability to take field heat out, i.e. CoolBot system
7. Animal exclusion and fencing
8. Produce shed and tool storage