

Funding Opportunity Information

RFA-FD-16-002: Local Food Producer Outreach, Education, and Training to Enhance Food Safety and FDA Food Safety Modernization Act (FSMA) Compliance (U01)

Introduction

This is a difficult time for small-scale farmers and other local food producers. The U.S. agriculture sector has entered into a period of what the U.S. Department of Agriculture (USDA) estimates will be a prolonged period of depressed prices. While farmers of agricultural commodities will be greatly impacted by the depressed prices, this is not exclusive to row crop producers. Fruit and vegetable prices are also down. For example, in the week of April 08, 2016, retail prices of broccoli were down by more than 23 percent, cauliflower was down 12 percent, and tomatoes were down more than 25 percent in comparison to last year.ⁱ A period of prolonged low prices as well as regulatory concerns can cause a major disruption in the preservation of small farms.

However, at the same time, local food production is growing and the value of local food sales is also increasing. In 2012, 163,675 farms were marketing foods locally. USDA estimates that local food sales totaled an estimated \$6.1 billion in 2012.ⁱⁱ The local foods sector is dominated by small, diversified farms--farms with gross cash farm income below \$75,000 accounted for 85 percent of local food farms in 2012.ⁱⁱⁱ Consumer awareness and demand has increased for local foods and USDA has helped foster the growth of direct-to-consumer and local farms to meet that demand.

The Food Safety Modernization Act (FSMA) Standards for the Growing, Harvesting, Packing and Holding of Produce for Human Consumption (Produce Rule) provides new and unique challenges to these small and mid-size farmers involved in local food production and processing, as well as diversified, sustainable, and organic operations. According to the Food and Drug Administration's Regulatory Impact Analysis, "the proposed rule will have a significant economic impact on a substantial number of small entities."^{iv}

Our project, *Enabling local produce growers and processors to comply with the Food Safety Modernization Act (FSMA) through specialized, needs-specific resources and training opportunities*, aims to do just this. We will target very small and small growers, as well as small-scale processors and mixed-type facilities, with scale-appropriate FSMA training and resources. In addition, our project will specifically target very small and socially disadvantaged farmers in Alabama and Mississippi to ensure compliance with the FSMA produce rule.

The target audience for this proposal includes small growers, small-scale processors, mixed-type operations, very small and disadvantaged farmers in Alabama and Mississippi (including low literacy farmers), food hubs, agricultural marketing co-ops, and small-scale processing co-ops. In addition, our proposal will work to address the needs of small-scale processors, since their specialized needs were not included in the initial development of the Food Safety Preventive Controls Alliance curriculum.

Our project will build upon existing available resources and modify the curriculum and delivery to serve local food producers in particular. It will focus on identifying and better understanding the unique needs of the sector in attaining compliance with FSMA and establishing targeted resources and training to address their needs. In addition, our proposal will allow for collaboration between all parties involved in food safety to share best practices and establish a network of cooperation.

As indicated in the Preliminary Regulatory Impact Analysis, FSMA may cause some small farms to halt production of crops that are too costly to grow, pack, harvest and hold. Farm size is a determining factor for risk associated with regulatory impacts - “small entities with above average costs of doing business will be at a competitive disadvantage.” As a result, some small farms may determine that the costs associated with FSMA compliance exceed revenues.^v

As the demand for local food increases, so will the opportunity for small-scale producers to access regional wholesale markets. These markets are likely to require higher standards of food safety certification. Now is the time to foster a culture of food safety among all producers - even those not subject to the full requirements of FSMA, and guide them towards the appropriate resources and trainings to satisfy regulatory compliance and the unique requirements of their local markets. Our approach will incentivize the adoption of food safety practices based on the economic opportunity offered by access to more markets.

Small farmers have unique challenges. Small-scale farmers may lack technical resources and skills necessary to comply with market-driven compliance mechanisms or regulatory requirements. Additional challenges include off-farm jobs that limit the time available for education, training and requiring multiple channels for marketing.^{vi} Small-scale farmers have difficulty accessing credit and grants. Small-scale farmers also have to compete with larger farms that have a competitive advantage with economies of scale.

The average age of today’s farmer is 58.3 and is increasing every year.^{vii} Unfortunately, the number of new farmers decreased from 2007 to 2012.^{viii} Now is a critical time to foster the entrance of young people into agriculture. There is a critical need to maintain small and mid-size farms, as well as encourage beginning farmers to get started. Education, outreach, and training to small and mid-size farms are absolutely critical to ensuring both the continuation of farms as well as the entrance of new farmers into the sector. Compliance efficiencies can also be gained by imparting these lessons to prospective producers before they obtain management responsibility.

Development and Implementation

As membership-based farm organizations and farmer-serving groups, we understand the unique needs and challenges facing small, local food producers around the country. These farmers aim to produce healthy, safe, high-quality food. They are concerned about the burden that new regulations and requirements will place on their farm and they need clear, accurate and accessible information about what is required of them. The organizations involved have experience and insight from both regulatory and regulated communities, ensuring a comprehensive understanding of the needs to be addressed.

Through this project, we aim to efficiently provide easily accessible and direct information to these farmers. Through trainings and specialized resources, we will help farmers understand their legal obligations. We will also subsidize the cost of these training and resources to minimize the financial burden on small farmers.

We do not just aim to educate small farmers and local food producers, however. We also will work closely with the Produce Safety Alliance, Food Safety Preventative Controls Alliance, National Coordination Center, and Regional Coordination Centers, and other organizations focused on food safety to connect these groups with small and local food farmers and strengthen the food safety community overall. Just as we aim to leverage all existing resources available from these groups, we want them to leverage the project partners to reach this underserved group of producers. The process will be continuously improved by rigorous self-

evaluation, as will be discussed in greater detail later. Through our collaboration, we will constantly improve methods of outreach based on data gained in education efforts i.e. more efficient identification of targeted farmers and better routes of reaching them. In addition, through our network, we will share best practices with one another to improve overall efforts.

Objectives and Methods

The objectives for this project are:

- Conduct needs assessment to better understand the specific needs of farmers and small-scale processors for FSMA education, outreach, and technical assistance, ensuring an evidence-based approach
- Develop a national training plan for local producers, including workshops and trainings
- Develop and distribute educational materials to supplement existing curricula
- Develop a national framework for communication with collaborators and local food producers
- Outreach to farmers and small-scale processors for increased awareness about food safety compliance

Conduct needs assessment for training, education, and technical assistance

The first phase of the project will include conducting a needs assessment for training, education, and technical assistance. The needs assessment will identify specific needs and resources that can be developed for farmers in the region to improve food safety standards and remain competitive in the market.

One aspect of the needs assessment will be conducted by using the collaborators' networks to survey growers, small-scale processors, food hubs and cooperatives nationwide on the most appropriate outreach mechanisms to develop for local food producers and processors. These programs and resources will need to be science-based, and specific to the diverse regions, crops, and cultures found nationwide. Surveys will be distributed in winter of 2017 through the email lists of National Farmers Union, National Hmong American Farmers, and National Young Farmers Coalition, as well as through social media, newsletters, and additional collaborators' websites. The survey will also be shared with state agencies that work with producers and processors through the Association of Food and Drug Officials and their regional affiliates as well and through National Association of Departments of State Agriculture (NASDA). Depending on the audience, producers will be able to fill out surveys electronically or through printed materials. Survey questions will focus primarily on quantitative data – this includes numerically ranking fact sheet ideas and resources by need and providing market data. Additionally, producers who have attended the PSA Grower Training and/or the FSPCA Qualified Individual Training will be surveyed to determine what additional resources are needed to bridge gaps in knowledge for small producers.

As a supplement to the national surveys, listening sessions will be hosted by regional collaborators for local growers and small-scale processors. These sessions will be used to verify and clarify information gathered in the survey. This will include asking more specific questions to further define what types of training, education, and technical assistance will be most effective and most desired by small producers and processors. It will also provide an opportunity to define regional needs and differences that may impact training, education and technical assistance. These listening sessions will provide detailed, qualitative knowledge surrounding producers' need and provide organizers with insight to more readily identify and find producers in need of training.

Sessions will be organized with a clear statement of the objectives. A presentation of the survey results will be made to the sessions. During these sessions, participants will be asked to share information about their operations and what type of training, education, and technical assistance they need to both understand requirements and implement practices. Targeted questions will be presented in each session so that each working group has an opportunity to respond to a uniform set of questions. This will allow data analysis across the regions. In addition, regional collaborators may ask questions or provide unsolicited feedback during open sessions that will provide opportunities to explore information that may be missing from the targeted questions. Comments and suggestions made by the working groups will be documented on flip charts for constant review as they progress. Additional notes will be taken by a designated note-taker to capture all ideas shared.

Through the assessment the project hopes to identify resources that already exist and are providing value to growers, small-scale processors, food hubs and cooperatives nationwide. Existing resources will provide a starting point and ensure limited project resources are not used recreating prior materials. Many resources may simply require updating for new FSMA elements and already have the fundamental information that would be beneficial to a wider and broader cast of producers and processors beyond local or state borders. For example, the Washington State Department of Agriculture (WSDA) has a number of materials that benefit small producers and processors that have been developed over the years through agency and grant funding such as USDA Specialty Crop Block grants and USDA Risk Management grants. Some of the materials are outdated and were developed for specific licensing issued in the State of Washington, but updating would be more efficient than beginning again. This is the case with many educational materials from land-grant institutions as well as grower and commodity groups so it is important to identify materials that are already being used.

The needs assessment will help determine the particular language translation needs of the targeted growers. Our proposal will include translation into Spanish, but we will work with regional groups to better understand what other languages will be necessary to reach the vast majority of targeted groups.

The needs assessment will target the following diverse group of producers: underserved, low-literacy southern African American, minority groups in the West, organic, small, and beginning farmers, as well as assessing the needs of various markets such as retail farmers' markets and small wholesalers. The needs assessment will help to better identify the establishments that will be mixed-type-facilities under the Preventive Controls rule. These establishments are particularly important to understand in the needs assessment so that we can effectively work with those that may be currently or temporarily exempt from regulations, but would be covered with the growth of their business. Education and outreach can help to make sure that growth does not function as a punishment for small-scale processors.

Additionally, targeted producers may be engaged in on-farm value-added processing that triggers compliance with the Preventive Controls. Resources will be deployed to quantify those products and provide appropriate education and outreach. Maple syrup and associated products on a diversified fruit and vegetable farm is one such example where a regionally specific value-added product requires compliance with the Preventive Controls rule.

The needs assessment will also include an analysis of the top 20% of local food production markets for products covered under the Produce Safety Rule and the Preventive Controls Rule. Using existing analyses of local food markets, as well the 2015 USDA Local Food Marketing Practices Survey, our need assessment will add to the body of knowledge on local food production by including in our survey questions regarding the produce sold, as well as the

products that local food producers sell that fall under the Preventive Controls rule. These products are likely to vary by region, so our project's broad geographic footprint will help to identify these regional differences. For example, the majority of maple production occurs in regions covered by NFU and its divisions. Smaller and mid-scale producers of maple products are often also engaged in other forms of agricultural production, potentially falling under additional FSMA requirements.

Working with other grower groups, coops, food hubs, farmers, stakeholders, and with the appropriate state regulatory agencies, we can identify licensed farm value-added producers and educate them on any additional requirements under FSMA for their operations. This will also enable us to ensure that resources address the regional diversity of products grown and sold.

The needs assessment methodology is as follows:

- Host survey sessions during 2017 winter meetings in the represented regions
- Perform regional needs assessments
- Conduct listening sessions in Winter and Spring of 2017
- Survey producers who have attended the FSPCA QI or PSA grower training to determine what are the additional requirements needed for compliance or to bridge knowledge gaps

Develop training plan for local producers, including workshops and trainings

Our project will use the Produce Safety Alliance (PSA) and Food Safety Preventive Controls Alliance (FSPCA) infrastructure and curriculum as the core basis for training local producers. In order to make the most efficient use of funds, the standardized curricula developed by the PSA and the FSPCA will be leveraged as the basis for the FSMA local foods training. We will modify the curriculum based on the outcome of the needs assessment as well as additional feedback from other non-governmental organizations, the National Coordination Center, and the Regional Coordination Centers, in coordination with the Produce Safety Alliance and Food Safety Preventive Controls Alliance.

After completion of the needs assessment, composed of the nationwide survey and regional listening sessions, NFU will host a Local Foods Outreach Meeting among collaborators and other invited participants. Invitees will include representatives of the Regional Coordination Centers and the National Coordination Center. Key results from the needs assessment will be presented to the attendees, and ample time will be given to discuss and develop a detailed training plan, evaluation plan and timeline for the creation of resources. Attendees will be encouraged to bring samples of successful food safety extension materials and share their experiences in developing resources for local producers and processors.

Subsidizing Trainings for Greater Reach

The training plan will be executed at local, state, regional, and national meetings. The number of trainings will be determined by the outcomes of the needs assessments. The number of trainings will range from 30 and 125 each year, with fewer trainings in year one while curriculum is being developed. The primary goals of the training plan will stem from the findings of the needs assessment, but will ultimately work to advance local food producer and small-scale processor understanding of food safety. Through a coordinated approach, we will leverage the networks of the partners and collaborators. Subsidized trainings will encourage higher levels of participation among local producers by making trainings more affordable, therefore improving compliance and public health. The training plan's project goals will stem from the findings of the

needs assessment, but will ultimately work to advance local food producer and small-scale processor understanding of food safety.

Training subsidies will cover the materials cost of attending the PSA, FSPCA, or supplemental local food producers programs. In the case of the FSPCA Qualified Individual training and the PSA Grower training, the materials cost of \$30-\$50 will be subsidized, leaving the grower to cover the nominal costs of the training. We believe that local producers and processors attending the programs should cover a nominal portion of the costs in order to discourage uninterested participants.

We will collaborate with the National Coordination Center (NCC) and Regional Coordination Centers (RCC) on best practices for delivering training as well as the development of the modified PSA and FSPCA curriculum to reach the outcomes identified in the needs assessment. Additionally, we will work with the RCCs to collaborate by hosting FSPCA trainings in their respective regions at a low cost to producers and small-scale processors.

We will also augment the existing trainings to bridge the technical knowledge provided from PSA and FSPCA, while meeting the regulatory expectations. The training materials will build upon the existing curricula and incorporate critical concepts not adequately addressed, such as guidance for mixed-type facilities that fall under both the Produce Safety Rule and the Preventive Controls Rule.

In addition, this proposal will conduct workshops for small growers exempt from FSMA, who may not have attended a food safety training in the past and may be unfamiliar with key concepts of risk reduction. In order to accommodate their needs, the workshops will focus more on the required recordkeeping and less on the details of the FSMA regulations. It will target growers who are interested in third-party audits on recordkeeping and food safety plan writing.

In addition to improving recordkeeping, these workshops will result in improved knowledge and skills related to food safety that could improve product quality, address efficiency issues with wash/pack facilities, and potentially prepare small growers for growth or collaborative marketing by integrating clearer, measurable standards in their production. We will also conduct value-added workshops for small processors which may be commodity- and market-specific depending on the outcomes of the needs assessment.

Train the trainer

One challenge we foresee in training local producers in the standardized curricula is the limited number of PSA and FSPCA lead trainers. Small, local growers and processors cannot be expected to travel far to attend a Grower or Qualified Individual training, therefore trainings will need to be hosted locally. In order to address this limitation, annual registration funds have been set aside to send six collaborators to the FSPCA lead instructor course, and six collaborators to the PSA Train-the-Trainer program. Those collaborators, representing various regions nationwide, will be identified based on need upon funding of this proposal. In the case of the FSPCA lead instructors, funds will cover the cost of registration (less than \$2,000 per person). The collaborators interested in becoming PSA lead instructors will have both their Train-the-Trainer (TTT) registration funded and the cost of the follow-up interview (\$200 for the PSA training and \$200 for the interview). In exchange for covering the costs of becoming a lead instructor, those trainers will be asked to host a certain number of PSA and/or FSPCA trainings within their region at a reasonable cost. This agreement ensures that an adequate number of

the standardized curricula trainings will be hosted locally and at a reasonable cost for the producers.

Employing the Grower Liaison Model

Through our partnership with the DFSA, we will employ a grower liaison model based on the outcomes of the needs assessment. The grower liaison model will aim to provide specialized assistance to producers. Successful deployment of this model will serve as a pilot project for additional regions. The DFSA and its primary partnership, The United Christian Community Association (TUCCA) has served small limited resource, minority and socially disadvantaged individuals and communities for over 20 years. Many of these landowners are socially disadvantaged; however, they have utilized the land to provide a sustainable supply of food and income for their families down through the years. The land and farm is key to their financial success and community self-determination in an area of the country with limited employment opportunities in other areas of the economy. In an effort to ensure that such producers can continue to compete in the market, the DSFA and TUCCA will implement the Grower Liaison Model to increase awareness of the regulations associated with the FSMA Produce Rule and Preventive Controls Rule and implement needed practices on the farm.

The Grower Liaison Model uses the theoretical framework originated by Seamon Knapp toward the end of the 19th century. Knapp launched a Cooperative Farm Demonstration Work project in which USDA employees worked in the field alongside farmers to implement new, yield-improving technologies. The proposed grower liaison model draws on this history in another important way. In 1906, Tuskegee pioneered the use of agricultural demonstration wagons (commonly called Jesup wagons) to instruct farmers in disadvantaged and underserved regions of the state about farming methods to improve production. The wagons were so successful that they were eventually adopted as an integral part of the USDA outreach program (Cooperative Extension). More recent research continues to support hands-on experience as the best model for providing educational opportunities to farmers (Johnson, Carter, & Kaufman, 2008). Though many growers in the US have sufficient access to internet, in Central Alabama and Eastern Mississippi, internet connectivity is inconsistent. Additionally, growers lack some of the basic infrastructure necessary to improve product safety and quality, such as hand washing stations and coolers. The use of farm-level demonstrations becomes even more important in these areas.

The DFSA along with partners, propose to provide a Grower Liaison that will develop innovative ways to present information to limited-resource farmer groups as it relates to the FSMA PSR and PCR. The DSFA has established relationships with farmers within socially disadvantaged communities and connected them to markets that require GAP certification. The Grower Liaison will use this established network of growers to conduct outreach to create awareness of the FSMA PSR and PCR. The Grower Liaison will design educational demonstrations to reach farmers within these groups at the desired level. It is anticipated that the types and levels of needs will vary considerably. Some growers will need assistance installing a hand washing sink, while others will be more concerned with developing an accurate microbial water quality profile for multiple on-farm water sources. The Grower Liaison will be able to deliver this specialized support needed by the unique growers in the area.

The DSFA will:

Year 1

- Coordinate and lead roundtable discussions concerning the needs and opportunities faced by minority groups concerning the FSMA PSR and PCR. The participants will provide the vision to guide training and practice implementation workshops that will form the basis of outreach. The grower survey from the national needs assessment will also be included to capture the needs of farmers unable to attend the roundtable discussions.
- Develop a media campaign within minority targeted groups as it relates to outreach concerning the FSMA.

Year 2 and 3

- Develop a “boots-on-the ground” approach to outreach and technical assistance using the needs identified by roundtable group in year 1. The Grower Liaison and Field Representative will travel to the farm to assist and demonstrate how to meet the requirements of the FSMA using innovative and low-cost methods.
- Develop workshops to involve adult and youth community leaders as it relates to how the FSMA regulations will affect the health of the communities involved. The workshops will garner support for the project and raise awareness of the importance of developing a safe supply of local produce to the health of community members. Much of the target area is considered by USDA to be a food desert and this initiative fits well with other community initiatives with a focus on increasing the availability of fresh fruits and vegetables (Economic Research Service, Food Atlas).
- Develop hands on workshops and demonstrate how to construct on farm and portable restroom/hand washing stations, on farm cool bot units, and irrigation systems using drip tape and plastic mulch to improve the safety and quality of fruits and vegetables.

The initial needs assessment roundtable discussions will be held at four locations in Central Alabama that have facilities to accommodate a large number of growers. In years two and three, demonstrations will be held on-farm locations in each county served: Marengo, Wilcox, Perry, Butler, Choctaw, Dallas, Hale, Sumter, and Greene. All of these counties are considered by USDA to be high poverty StrikeForce counties.

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The Grower Liaison model will be used only in the Southeast, specifically Alabama and portions of Mississippi. The hands-on support provided by the liaison will be imperative in helping the underserved, low-literacy minority growers in the region come into compliance with FSMA, improving their market share and benefiting the local economy, while achieving favorable food safety outcomes. Many of the communities where minority farmers live do not have access to the internet at the farm, so information that is posted online may not be best way to reach these customers. The Grower Liaison will facilitate, monitor, and evaluate this practice for possible replication in other regions of the country.

In addition, the Grower Liaison will take a holistic approach with growers to address other topics key to remaining competitive in the market including:

- Transportation & Logistics
- Access to Capital
- Access to Markets
- Labor, Irrigation
- Seasonal High Tunnels

Develop educational materials to supplement existing curricula

A key deliverable from this cooperative agreement will be the development of science- and legal-based guidebooks with standardized basic information and resources for local producers. The standardized portion of the guidebook will be supplemented with additional materials specific to a grower or processors' practices, region, culture, or market. This guidebook will include the legal requirements under FSMA for growers and small-scale processors.

The guidebook will contain matrices comparing the FSMA requirements with the USDA Good Agricultural Practices (GAP) audit, the National Organic Program (NOP), and other relevant third party audit certifications. This resource will be key in helping growers compare FSMA regulation to current recommended practices they may already be doing for certification programs, thus helping them become more comfortable with FSMA requirements. Additionally, these matrices will ensure that growers do not duplicate efforts in recordkeeping for multiple programs. For example, in many cases records used to demonstrate compliance with the National Organic Program standards can be adapted to also meet food safety standards reducing the recordkeeping requirements for small and very small farmers.

An example of an additional resource that can be created for small growers and processors is a technically accurate, simple-to-use microbial water quality profile calculator based on a commonly used software product such as Microsoft Excel. This calculator will differ from the available tools by its simplicity and ease of use, and will be made freely available as a stand-alone file for those without easy access to the internet. Accuracy will be verified against other similar calculators including the one created by the Western Center for Produce Safety. This version of the calculator will be designed specifically to meet the needs of small, diversified, and organic farmers to calculate microbial water quality statistics and compare the calculated statistics against the numeric criteria for agricultural water used during growing activities that are included in the Produce Safety rule. Growers in the target audiences will be taught to use the calculator as part of a decision-making process, so they may easily make management choices based upon their microbial water quality profile. The calculator will be made publically available and its use will be emphasized and demonstrated during hands-on workshops.

The guidebook will include culturally appropriate methods such as pictorial-based resources for low-literacy farmers and videos. Included in the guidebook will be a survey to assess the impact of the educational materials. The guidebooks will be distributed through the partners, as well as additional collaborators.

In addition to the development of guidebooks and videos, under this cooperative agreement we will employ hands-on workshops, educational resources for trainers (including agendas, instructions, and examples for hosting hands-on workshops), and allowing hands-on workshops to be hosted in localities not represented by collaborators. Examples of these hands-on workshops may include managing water sanitizers, building a simple produce cooler, and teaching worker hygiene. These educational resources will be available on the website as well

as in a teaching manual. We anticipate that partners will employ these resources throughout their regions.

Additionally, we will pilot the developed materials in represented regions through a series of focus groups. Local collaborators will ensure that each group is representative of the local producers from the region, addressing differences in culture, market, and commodity. The focus groups will help ensure the material developed reach the needs established from the needs assessment.

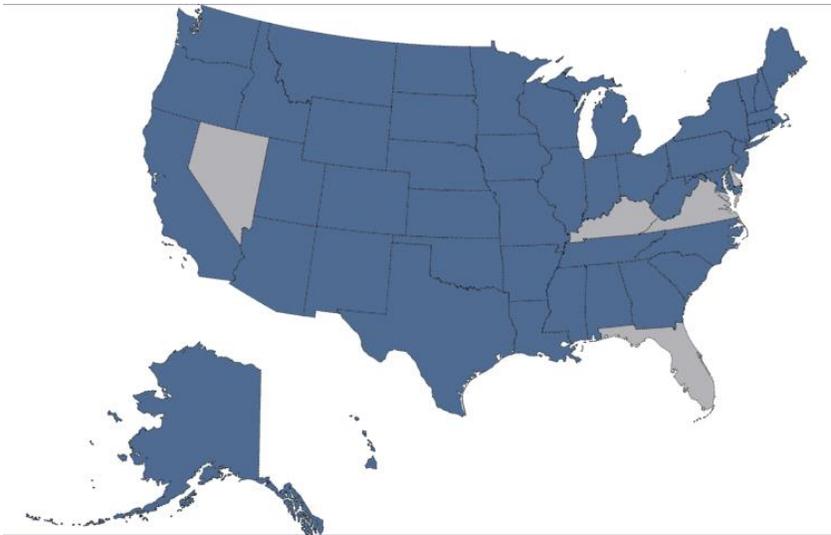
Develop national framework for communication with collaborators and local food producers

The outreach activities under this agreement will be rooted in a national network of farmer-serving organizations and state Departments of Agriculture. Our partner organizations will give the network a national breadth, but also depth in specific states and regions. This network will identify additional key partner organizations, host trainings, and disseminate resources, the backbone of which will be a website with partner information and outreach materials.

This network will provide both the breadth and depth necessary to make this agreement a success. National Farmers Union and the National Young Farmers Coalition reach farmers across the country and have members in every state. This broad, national coverage is critical to ensuring that all local food producers have resources available, regardless of whether there is a local partner in their region or not. The participation of these two national, farmer-based groups will guarantee that all producers have a representative and outreach partner within the network.

In addition to national breadth, local and regional partners will provide the depth needed to reach local food producers. These collaborators include the Deep South Food Alliance, in addition to NFU's 24 state and regional organizations and NYFC's 30 state and local chapters. Each of these partners works with local farmers on the ground every day. For example, local farmers, who are producing fruits, vegetables, and livestock for local and regional markets, run each of NYFC's chapters. These partners are experts in the challenges facing producers in their respective regions and the best communications channels to reach these producers.

Nonprofits are not the only local partners involved in this network. Several state Departments of Agriculture are partners who will bring critical expertise to the network. These states include Maryland, New York, and Washington. These Departments will help the network reach producers within these states. In addition, we expect state Departments of Agriculture to play a large role in the implementation and enforcement of food safety regulations. Engaging these Departments in the outreach process will help build trust and producer relationships, which is critical to successful regulatory implementation. These Departments will be able to explain to producers both the substance of the regulations as well as the process involved in complying. We also expect the network to draw on this unique expertise nationwide.



Map of existing partner coverage

This network will also leverage the existing organizations and resources that have been put in place by FDA. We will work closely with the FDA Food Safety Alliances, National Coordination Center, and Regional Coordination Centers. In addition, state Departments of Agriculture and state Cooperative Extension already have a broad footprint across rural America. We will engage and partner with these groups wherever possible to extend the network's reach to local food producers and to leverage existing relationships, resources, and infrastructure.

The network will play several key roles. First, it will engage other farmer-serving organizations and develop a directory of these groups. This directory will connect farmers with local, community-based organizations that can provide specialized resources. While many of these organizations are already partners, we expect to expand this group over time. Second, this network will host trainings for farmers across the country, organized and conducted in conjunction with partner organizations. A national network will ensure these opportunities are broadcast to a wide audience. Finally, this network will disseminate outreach materials. These materials will be available online as well as in hard copy through partner groups.

Supporting this network will be a website where anyone can access the outreach materials. Visitors will be able to find links to the Alliances, the Regional Coordination Centers, and local outreach partners in their area. The website will be critical to making the outreach efforts under this agreement a cohesive whole, rather than one-off outreach events. In addition, it will allow farmers who might not be already connected to a partner organization to find outreach materials and partners. In addition, we will undertake mobile application development to supplement the resources available on the website.

Upon execution of the proposal, we will expand our partner-base to include the appropriate regulatory agencies, cooperative extension services, non-governmental organizations, farmer and commodity groups across the country and territories.

This proposal will also work with the existing communications resources available through our collaborators, partners, and others. This will include employing the Produce Safety Alliance's established email listserv that reaches over 1,000 individuals in 44 states representing growers

and packers, educators, industry members and government and regulatory officials. This listserv has historically been used to provide newsletter updates from the PSA on FSMA regulations, GAPs education and training opportunities. Through collaboration with the PSA, this newsletter can be leveraged to highlight the development of materials and programs through the Local Foods project.

The limitations of this proposal are its lack of local organizations in all states and territories. Our project lacks local partners in Virginia, West Virginia, South Carolina, Nevada and Florida. The national framework will help to reach additional partners and collaborators across the country, but additional collaborators will likely be needed in order to have a truly nationwide on-the-ground deployment of education, outreach, and technical assistance.

Program evaluation and reporting

Resource development, outreach activities, and education efforts will continuously evolve as programs are implemented and evaluations and feedback are received from collaborators. Regional partners will be requested to periodically report evaluations and performance metrics as a process for continual improvement. NFU will host and maintain a shared database for program, resource, and trainer evaluation so there is a consistent and uniform evaluation process among the national collaborators. Performance evaluations will ensure that materials within the nationally-distributed local foods guidebook will have the same measurable impact and benefit to local producers nationwide. Resources developed by collaborators for local audiences will be evaluated by the same standardized metrics.

Training evaluations for the standardized courses will be based on the evaluations developed by PSA and FSPCA, so these program results can be measured on a national scale. Evaluations for the supplemental programs and resources, including the Grower Liaison model, will be based upon the Kirkpatrick's Model.^{ix} This model contains four evaluation levels and is commonly used by extension and outreach organizations. Level 1, 'Reaction', can be measured by asking program attendees to evaluate the course contents, training environment, and the instructors on a 1 – 5 numerical rating scale. Attendees will be asked to self-report how they plan to use this new knowledge and will have a chance to provide written comments on the program. Training evaluations will be given to all participants at the end of the program. Additional levels of the Kirkpatrick Model measure 'Learning', 'Behavior', and 'Results' – specific details on evaluating the higher levels of the model will be discussed and developed during the Local Outreach Meeting in the first year.

Key evaluation metrics to be collected will include:

- o Training evaluations for each program conducted, whether it be a standardized alliance (PSA or FSPCA) alliance program or a novel program for a specific group of growers, production method or market.
 - i. Number of individuals trained, dates/locations of trainings, general demographic information, quality of presentations and material and initial knowledge gained.
- o Evaluation of innovative grower liaison model in South
 - i. Number of individuals trained and workshops hosted, knowledge gained by growers, measure of produce safety implementation through follow-up visits and surveys
- o Reporting on engagement of key stakeholders and industry partners, such as through presenting and sharing information at national and regional meetings and conferences

- i. Name of meeting or event, number of individuals reached, primary audience, type of information presented
- o Needs for curriculum modification and additions to standardized alliance curricula, workshops, and programs
- o Identifying opportunities for continuing education and need for additional resource development and identifying biggest challenges to compliance
- o Short and long term evaluation of implementation of produce safety practices and federal regulations through training and follow-up surveys

Key Personnel

The National Farmers Union and Key Personnel on this team embody an interdisciplinary network of collaborators who have the experience and expertise required to serve the fresh produce growers, processors, and potentially regulated cooperatives and food hubs outlined in the this funding opportunity, including small, diversified, sustainable, organic, and identity-preserved agricultural production. This partnership of organizations allows our team to utilize a nationwide advocacy network, while collaborating with local organizations that work directly with small and mid-sized food producers. This team has experience representing groups of underserved food producers who, due to their limited resources, will have difficulty complying with the FSMA Produce Safety rule and Preventive Controls rule.

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Key Personnel

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Additional personnel

In addition, this project will also employ a “FSMA Coordinator” who will work with the Project Director to establish a steering committee to have input and technical oversight of the project. The FSMA Coordinator will also be tasked with developing a communication plan for all coordinators and partners, as well as with FDA, USDA, and the FSMA Alliances, including one face-to-face meeting each year of the project. The FSMA Coordinator will also draft quarterly progress reports and conduct monthly teleconferences with FDA, under the supervision of the Project Director.

Additionally, the FSMA Coordinator will have technical expertise on either the legal components of FSMA and/or on other aspects of food safety. The FSMA Coordinator will assist in the drafting of resource materials.

This project will also hire a part-time employee to assist with the development of a website. This website will exist beyond the scope of the project and will require periodic updates after its initial development.

Key partners:

The key partners on this project include two national organizations (National Farmers Union, and National Young Farmers Coalition), three state Departments of Agriculture (Maryland, New York, Washington), Cornell University, and the Deep South Food Alliance. FDA has laid the groundwork for communication, coordination, and support for an integrated food safety system. This cooperative agreement will continue in that regard and expand the coordination to include local food producers, as well as the organizations that represent them. Effective education and outreach to local producers will require multiple approaches. The three national organizations listed below have a history of coalition building and partnership development, both nationally and at the local level. These organizations are established names within the communities they represent and are considered trusted sources of information. The partnerships listed below will help local food producers and processors understand and interpret new Federal food safety agricultural production and processing regulations and guidance enacted under FSMA. As the results from the needs assessment are compiled, additional partners may be added to ensure that the specific needs of local producers are addressed by the expertise of collaborators on this cooperative agreement.

National Farmers Union

National Farmers Union (NFU) represents many of the farms and food operations that will be most impacted by FSMA, including diversified, small, organic and direct-to-consumer markets. NFU is a general farm organization with over 200,000 farm family members across the country. NFU is organized in 33 states through a grassroots structure. Since 1902, NFU has advocated on behalf of family farmers and ranchers to ensure their economic and social well-being, and quality of life through education, cooperation, and legislation. NFU aims to maintain the diversity and viability of family agriculture – of all sizes and production methods – across the country.

In fact, this type of farmer is the fastest growing segment of NFU’s membership. NFU has 24 state or regional conventions between September and February each year, with additional county and regional meetings throughout the year. NFU also has a national convention annually that brings together members from across the country. Through the National Farmers Union Foundation, the organization reaches additional farmers through its Beginning Farmer Institute (BFI) where beginning farmers acquire leadership and farm management skills through educational sessions, business tools and professional speakers. Graduates of BFI often use their leadership skills acquired through the program in their local communities.

Many of NFU's divisions have taken active roles in their local areas on education and outreach on FSMA and its requirements to farmers. Nebraska Farmers Union, through a Local Food Promotion Program grant, recently completed a series of educational trainings on food safety for specialty crop producers in Nebraska. The trainings focused on recent changes to FSMA regulations. Participants developed and created Food Safety Action Plans required for sales into new markets. The intent of the training was to give producers a running start to find workable solutions and to ensure the continued success of local food and specialty crop producers to meet the increasing consumer demands for locally grown foods.

Another of NFU's divisions, New England Farmers Union (NEFU) was awarded a Specialty Crop Block Grant to provide FSMA education and outreach to Connecticut farmers. This 3-year grant will target outreach efforts to covered, qualified-exempt and exempt farms across Connecticut, providing them guidance on who must comply, when they must comply and how to comply by directing them to the appropriate resources available. NEFU is currently applying for an SCBG in New Hampshire to conduct similar outreach and education activities.

NFU and its divisions have a long history of working with partners both nationally and at the state and local level. Our leadership works with state departments of agriculture, extension, land-grant universities, other agricultural organizations and community-based organizations.

In addition, NFU has ample experience developing and delivering curriculum. Through its education programming, NFU has created curriculum at multiple levels and worked with state partners to deliver the education on a number of different subject areas.

National Young Farmers Coalition

The National Young Farmers Coalition (NYFC) has been engaged with food safety policy and outreach for several years. NYFC represents, mobilizes and engages young farmers to ensure their success. NYFC was formed by and for young farmers to tackle the challenges that we face head-on, in order to make farming a more viable career option, and clear pathways into agriculture. NYFC envisions a country where young people who are willing to work, get trained, and take a little risk, can support themselves and their families in farming.

Since its inception in 2010, NYFC has developed into a robust coalition of young farmers and their supporters with 30 chapters in 26 states, more than 1,400 dues-paying members, and a grassroots base of more than 75,000. The advocacy efforts of NYFC have already led to important policy wins and positive change, and have contributed to making young farmer success an issue of national concern.

NYFC and its local chapters have organized 50 events over the past year, and approximately 3,000 young farmers have participated. These national and local events bring farmers together to network, share information, and learn from one another, a model that has been shown to significantly contribute to beginning farmer success. NYFC has hosted online webinars and events to educate our members about the FSMA rule-making process and new requirements. Over 1,000 NYFC members and supporters wrote in with comments during the first comment period on the proposed FSMA Produce Rule. This issue is clearly something that NYFC members are concerned about and engaged with.

New England Farmers Union

New England Farmers Union (NEFU) has prioritized FSMA since its inception. NEFU, a membership organization, is committed to enhancing the quality of life for family farmers, and their customers through educational opportunities, co-operative endeavors and civic engagement. NEFU was founded in 2006 as a chartered member of the National Farmers Union. NEFU has led efforts in New England to educate farmers, legislators, and others on the proposed and final FSMA rules. NEFU has collaborated with other non-governmental organizations, FDA, USDA, and state government officials.

New England Farmers Union has made FSMA a priority from the release of the draft rule through the final rule. NEFU has collaborated with local, regional and national partners to inform and educate farmers, legislators, and others on the rules impact to local and regional agricultural.

Delivering the PSA curriculum or other approved equivalent training is one of the grants goals as well as directing farmers to scale appropriate further training options; including USDA-GAP's, and self-directed food safety training programs such as Family Farmed Managing for Wholesale Success program.

Deep South Food Alliance

The Deep South Food Alliance (DSFA) will create awareness of FSMA and provide hands-on training and implementation of protocol to meet the food safety demands of FSMA because of the importance of the impacts FSMA may have on southern produce farmers. Mainstream agriculture in West Central Alabama and East Mississippi consists primarily of cattle production, hunting, fishing and timber production for forest products. Yet, many limited resource and socially disadvantaged, minority and small landowners in the area lack the needed acreage for such mainstream agricultural production. The vision for the DSFA is to cultivate commercial markets that will purchase locally grown vegetables at the wholesale level from small to mid-size farmers in West Alabama and East Mississippi within a specific radius of the DSFA facility in Linden, Alabama.

The DSFA was organized in 2013 as a for-profit business working in partnership with The United Christian Community Association (TUCCA) a non-profit, faith-based 501(c)(3) organization. The purpose of this effort was to develop a food hub/processing/aggregation point for small scale farmers to have access to larger markets and serve the local communities as well. At this point, the DSFA facility has become GAP certified and has 20-35 small scale and mid-size producers that they purchase from and provide technical assistance to. The DSFA has a large building (40,000 sq. ft.) that can be expanded into a major operation.

DSFA has created major market opportunities for producers such as Red Diamond, a major coffee and tea distribution company head quartered near Birmingham Alabama. Red Diamond operates and distributes in the southeastern United States. In 2012, they opened up a produce component and developed a partnership with the DSFA to supply cut, washed, frozen collard greens. In addition, DSFA supplies produce to local school districts, communities and restaurants. One of the goals is to continue and expand this work with socially disadvantaged and limited resource farmers to help them improve their practices to comply with the FSMA Produce Safety Rule (PSR), and use this compliance to build wealth creation opportunities for these producers.

The DSFA is managed by Andrew Williams, a former USDA employee who has over 40 years of experience working with African American farmers and communities. The DSFA and its staff will develop training materials, and presentations to assist the above farmers in complying with

FSMA. Employees of the DSFA processing facility will be trained concerning both the Produce Safety Rule and the Preventative Controls for Human Food (Preventative Controls Rule) as it relates to small, local processors specific to the Southeast.

Maryland Department of Agriculture

All programs within the Maryland Department of Agriculture (MDA) work with local producers and underserved groups and have extensive experience in reaching out to these groups. MDA is a cabinet-level state agency responsible for a wide variety of programs related to agriculture. Regulatory, certification, and marketing programs within MDA are designed to protect both farmers and consumers. The Food Quality Assurance Program housed within the Animal Industries, Marketing and Consumer Services unit is responsible for administration of the USDA-Accredited MDA Organic Certification Program, the provision of USDA GAP and USDA Harmonized GAP audits and the administration of the MDA State GAP program.

Deanna Baldwin is the Program Manager for the Food Quality Assurance Program with thirty eight years of experience assisting farmers with compliance with food safety rules. In addition to the programs she manages, Deanna is also MDA's liaison to the Maryland Department of Health and Mental Hygiene which regulates food processing in Maryland. In this role she has assisted small and very small farmers with compliance issues concerning on farm processing of food. The MDA staff will use their knowledge of the USDA GAP standards and the USDA National Organic Program standards to create the matrices comparing these standards to FSMA regulations. MDA staff will also use their contacts in the agricultural community to disseminate the guide books and facilitate FSMA training.

Washington State Department of Agriculture

One of Washington State Department of Agriculture's (WSDA) major goals is to protect and reduce the risk to public health by assuring the safety of the state's food supply. WSDA is responsible for carrying out a broad spectrum of activities that support the producers, distributors, and consumers in Washington. WSDA is comprised of six divisions: Administrative Services, Animal Services, Commodity Inspection/Market Development, Food Safety and Consumer Services, Pesticide Management, and Plant Protection. The Food Safety Program and the Office of Compliance and Outreach are located within the Food Safety and Consumer Services (FSCS) division. The Food Safety Program is responsible for compliance, the licensing and inspection of food processing facilities, food warehouses and dairy farm operations throughout Washington.

Claudia Coles is the Policy & External Affairs Advisor for FSCS with thirty three years of experience in WSDA and particularly with Food Safety. In addition to this role she is a member of the Food Safety Preventive Controls Alliance (FSPCA) where she helped in the development and implementation of training on the Preventive Controls (PC) which were initiated in November 2015. Claudia is a FSPCA PC Trainer of Trainers and a Lead Trainer providing the FSPCA PC course in the Pacific Northwest which also includes small-scale food processing units. Previously Claudia was the Administrator for the Office of Compliance and Outreach (OCO). In this role she worked on a team of Food Safety Compliance and Outreach members that worked across WSDA as well as with local health jurisdictions, the State Health Department and both FDA and USDA organizations as well as local producers, processors, school districts and many other nongovernment organizations promoting public health, food safety and local foods. The WSDA and Claudia will assist this project by assisting with PC trainings as well as in providing assistance on the development and updating of guidebooks that will be distributed.

Claudia's prior experience working across multiple organizations and programs in the food safety realm will also be of assistance to this project.

Cornell University

The Department of Food Science is one of the premier food science programs in the nation and works to apply the principles of science to the safety and quality of foods in the United States. Elizabeth Bihn is the Senior Extension Associate for the Cornell University Department of Food Science. They are at the forefront of identifying and limiting outbreaks of foodborne illnesses. As the Senior Extensions Associate, Elizabeth is responsible for translating and transferring research-based knowledge to stakeholders both in New York and across the United States.

For the last fifteen years Elizabeth has focused on educating growers, farm workers, and high school agriculture students in the areas of Good Agricultural Practices (GAPs) including the development of curriculum, educational materials, and training programs that focus on risk reduction. Elizabeth's current extension and research efforts focus on leadership and development of the Produce Safety Alliance to assist growers with implementation of the FSMA Produce Safety Rule, training including farm food safety plan development with produce growers in New York, and nationally, economic impact of implementing food safety practices on fresh produce farms, oversight of the GAPs Online Produce Safety Course, and coordination of the National GAPs Program including the GAPs Bookstore. She has experience facilitating having led the Produce Safety Alliance through the development of a nation-wide produce safety curriculum. Through her research she engages with fresh fruit and vegetable growers and packers through trainings and one-on-one interactions daily, taking time to gather their input and suggestions.

Elizabeth will assist this project through her experience in developing educational materials, promoting education materials across the nation and through her vast background in food safety, particularly the FSMA Produce Safety Rule. Elizabeth will create and conduct the surveys and focus groups for the needs assessment, in addition to modifying existing food safety curriculum to meet the needs of the target audience.

Collaborators

Our project has worked to identify collaborators who will expand our reach to provide education, outreach and training to a larger population. Those collaborators include the National Hmong American Farmers, Inc. and the Food Bank of North Alabama.

National Hmong American Farmers, Inc.

Started in 2003, National Hmong American Farmers, Inc. (NHAF) is a non-profit 501c3 organization whose mission is to preserve Hmong-American farm culture by promoting economic self-sufficiency for Hmong-American and other immigrant and ethnically underrepresented farmers. We provide services to independent farmers throughout the country, with special focus on California's Central Valley farmers, who may have limited access to government programs. We believe that the success of small farmers is a benefit to us all. NHAF encourages maintaining a healthy planet through culturally and environmentally friendly farming.

NHAF serves as a one-stop resource training center for small farmers in the Central Valley. Working with groups with different ethnic backgrounds, including Hmong, Lao, Minh, Latino, African-Americans, and Armenians, NHAF provides technical assistance and training on a variety of topics, including compliance with produce safety regulations and obtaining third-party audit certification.

NHAF will bring a particular focus on minority and limited resource farmers to the network. NHAF serves farmers from Hmong, as well as Lao, Minh, Latino, African-Americans, and Armenian descent across the U.S., with a particular focus on California's Central Valley. In addition to in-person meetings and events, NHAF uses a weekly radio show and online videos to reach minority farmers. With NHAF's assistance, the network will be able to leverage these tools as well.

Food Bank of North Alabama

The Food Bank of North Alabama aims to alleviate the suffering caused by hunger and poverty. Kathryn Strickland is the Executive Director of the Food Bank of North Alabama (FBNA), which provides food assistance to over 80,000 people in North Alabama through a network of over 200 feeding programs. Kathryn joined the Food Bank in 2009 as the agency's first Community Food Security Director. In this capacity she coordinated initiatives designed to move beyond charity to foster economic development within the local food system. Projects include a revolving loan fund for local farmers and facilitating the development of a local food hub.

The Food Bank of North Alabama has committed to hosting a Produce Safety Alliance and a Food Safety Preventive Controls Alliance training annually in north or central Alabama with Cornell-certified trainers and curricula. The trainings will be coordinated with other Alabama stakeholders to ensure there are not duplicative trainings in the same region of the state.

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