

**Engagement Incentive Grants**  
**Final Report- June 2017**  
**“Engaging Kansas produce growers in strengthening on-farm produce safety and quality education and outreach”**  
**Submitted by Londa Nwadike**

I. Summary of activity

a. Thesis of project or need addressed

On-farm produce safety and quality is an issue of growing importance to strengthening economic development of small-scale farms and communities throughout Kansas, as well as improving overall public health. Demand for locally-grown fruits and vegetables continues to surge, and along with that, buyer requirements will continue to get stricter. Interest in initiatives such as farm to school and food hubs continues to grow, which is very positive, but farmers may not always be prepared to meet the food safety and quality requirements of these markets. Some of these markets require Good Agricultural Practices (GAP) certification, which requires extensive documentation of the safety of their produce. Further, the US Food and Drug Administration (FDA) Food Safety Modernization Act (FSMA) produce safety final rules were released in November 2015, which is the first time that produce growers have had government food safety regulations imposed on them. Accordingly, many farmers, as well as the Extension and other educators serving them, have expressed that they feel overwhelmed by these food safety requirements and do not know where to turn for assistance to develop the on-farm food safety plans necessitated by all these requirements.

Feedback from farmers involved in previous related initiatives of Kansas State University Research and Extension (KSRE) and from the farmers engaged in the development of this proposal indicate that they are interested in having more tailored food safety and quality resources available for them to use to assist them in documenting their food safety plans. In fact, 62% of 109 attendees at the 2014 Great Plains Growers conference stated that they were interested in obtaining GAP certification. Discussions with produce growers and other agencies working on farm to school and related initiatives have also indicated that they would like their local Extension personnel to be able to provide more food safety-related assistance, including provision of applicable templates and other necessary documentation.

KSU has already been conducting critical research in produce safety and quality, so this project helped to further engage those researchers with farmers that benefit from the results of the research.

- b. Location of project- The project was primarily carried out in St Joseph, MO, Olathe, KS, and Manhattan, KS.
- c. Length of project- The activities directly funded by the project were primarily carried out between July 2015 and June 2017.
- d. What type of action(s) did your project take?
  - i. Outreach- We met with Kansas produce growers to get their input on a website, resources, training, and research needs for improving their on-farm produce safety and quality. A website and relevant materials for farmers were developed based on this input. We trained 18 Kansas Extension personnel through these funds and other complementary funds on the FDA Food Safety Modernization Act (FSMA) Produce Safety Rule official curriculum so that they can provide training and information to Kansas produce growers.
  - ii. Teaching (service learning)- Even though not funded directly by this grant, a Graduate Research Assistant funded through complementary projects has worked on some project activities and has learned much more about produce safety and working with farmers.
  - iii. Scholarly research- none directly conducted through this project.
  - iv. Training- We held an official FSMA produce safety rule grower training at a 4 state produce growers conference with 16 growers from Kansas in attendance.
- e. Who were the project partners?
  - i. University and Extension partners- Drs. Cary Rivard, Sara Gragg, Eleni Pliakoni, Londa Nwadike and Mr. Marlin Bates (KSRE Extension County Program Director in Douglas County) have been deeply involved in the project. They were involved in the initial planning of the project and in providing input on materials to be posted on the project website and to be developed. They have also listened to farmer input on research needs and incorporated them into subsequent research projects. In addition, 16 other KSU Extension personnel attended the FSMA Train the Trainers session.
  - ii. Community partners- Our farmer advisory team members Kathy Flora, Steve Benne, Allen Schmidt, and Mike Schoenecker provided excellent insight into this project by giving us feedback on materials and research needs they had related to produce safety. The Kansas Department of Agriculture and the Kansas Farmers Union also attended the FSMA train the trainers session and we continue to work closely with them in planning future produce safety training and outreach activities.
- f. In general, what roles did each partner play? See above

- II. What were the impacts of your work?
- a. Juried essays / book chapters / conference presentations- Cary Rivard, Marlin Bates and Londa Nwadike presented at the 2016 KSRE Annual Conference on produce safety, which included information on this project, the website developed through this project, and other related produce safety resources.
  - b. Web site- This website <http://www.ksre.k-state.edu/foodsafety/produce/> was developed through this project and continues to be updated.
  - c. Training materials-We utilized the FDA recognized curriculum materials developed by the Produce Safety Alliance (in which the PI is involved) in the train-the-trainer and grower training through this project. We did also develop some fact sheets and related resources for farmers that are available on the above website.
  - d. Performances / exhibitions- N/A
  - e. Reports- N/A
  - f. New teaching areas or techniques- some of the information gained through this project will be utilized in the KSU credit course “Farm to Fork Produce Safety”
  - g. Changes in public policy- Partially as a result of this project, the PI now works closely with the Kansas Department of Agriculture on produce safety training and regulations in Kansas.
  - h. Community or organizational changes
    - i. Capacity built to continue work?- see grant funding section below. This project was a springboard for additional produce safety funding and training for all involved, as well as for further strengthening relationships with farmers, all of which has and will continue to be very beneficial to continue this produce safety and quality work in Kansas.
  - i. Grant funding
    - i. Additional funding you secured-
      1. Kansas sub-contract for Iowa State Regional FSMA produce safety training center- KSU portion \$8000/ year for 3 years
      2. Kansas Department of Ag Specialty Crop Block Grant- \$33,352 over 1 year
      3. Missouri Department of Ag Specialty Crop Block Grant- \$36,726 over 2 years
      4. USDA NIFA Food Safety Outreach Grant- \$150,773 over 2 years
      5. KDA Produce Safety Cooperative Agreement funds (from FDA) \$817,610 over 5 years
    - ii. Funding your community partners secured – the farmers became aware of additional funding available to produce growers from KDA through this project. The Kansas Department of Agriculture

received Produce Safety Cooperative Agreement funds from FDA, part of which was sub-contracted to KSRE (listed above). Kansas Farmers Union also received funding from the National Farmers Union to carry out produce safety outreach with KSRE.

- j. Jobs saved or created- we are hiring a Produce Safety Extension Associate through the KDA Produce Safety funds mentioned. This project helped farmers stay in compliance with federal regulations, so hopefully this can help their farm stay in business.
- k. Other- N/A

III. Self assessment of your project

- a. Successes- We were able to gain invaluable feedback and strengthen future relations with the farmer advisory team members. This project definitely served as a springboard for future grant funding related to produce safety outreach. We always listed this project as complementary funds in other grant applications, which have been very successful. We had a larger than expected number of Extension agents from across Kansas interested in the produce safety train-the-trainer, and also developed strong relationships with KDA and KS Farmers Union through this project. It has been very beneficial to have this project website as well, for future projects.
- b. Challenges- It takes a great deal of time, effort, and coordination to develop useful and accurate resources for farmers in produce safety. We were not able to develop as many materials ourselves as we thought due to these constraints, but there are other excellent resources available from other universities and institutions, so we utilized those resources and developed a few of our own.

IV. Final budget

Budget item	Amount- Year 1	Amount- Year 2	Total amount
Consultant	\$1000- paid to Karen Blakeslee for website development		<b>\$1000</b>
Travel	\$200 each to Kathy Flora, Steve Benne and Mike Schoenecker for travel to farmer advisory team meeting (\$800 total)	\$288.96 to Extension personnel for travel to produce safety train the trainer; \$415.09 for travel of trainers to grower training; \$686.38 to growers for travel to grower training	<b>\$2190.43</b>

Conferences/meetings		\$2388.07 for train the trainer certificates and meeting supplies	<b>\$2388.07</b>
Farmer advisory team compensation	\$1000- \$250 each to Kathy Flora, Steve Benne, Mike Schoenecker, and Allen Schmidt		<b>\$1000</b>
Printing costs		\$2721.50 to Cornell for Train the Trainer manuals	<b>\$2721.50</b>
<b>TOTAL</b>	<b>\$2800</b>	<b>\$6500</b>	<b>\$9300</b>