

Project Title	Exploring Regional Extension Teamwork and Best Practices
Project Synopsis	<p>Cooperative Extension, through the Smith-Lever Act of 1914, has provided home food preservation information and education for more than 100 years. As many states have undergone staffing changes and program realignments, Extension's role in home food preservation education has changed through the years. The overall goal of this proposed project is to assist NEAFCS affiliate groups to create regional teams to implement Extension FCS networks. While our focus is on food preservation, this model could be used for other topics among our NEAFCS colleagues.</p> <p>This project will develop and deliver the following:</p> <ol style="list-style-type: none"> 1) Three sessions delivered live on Zoom and recorded as MP4 files. 2) Three handouts, including a Best Practices in Regional Evaluation, Best Practices in Communicating Across States, and Best Practices in Food Preservation Education. 3) Online evaluation tool to accompany the live/recorded sessions. 4) Follow-up evaluation tool to determine if states try the methods. The group also can serve to answer questions of NEAFCS participants. 5) Updated regional food preservation resource website, which will house the recorded modules. 6) Shareable social media (at least 12 posts) on best practices in home food preservation. 7) Poster or concurrent session at an NEAFCS conference; publication for the NEAFCS Journal.
Program Length	The program length is approximately 3 hours (3 online seminars/modules that are 1 hour each; 3 handouts). This one-year project will result in stand-alone recorded modules that can be viewed any time after the live delivery.
Total Amount of Funding Requested	\$3,000
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NORTH CENTRAL REGION FOOD SAFETY



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Introduction/Background

Cooperative Extension, through the Smith-Lever Act of 1914, has provided home food preservation information and education for more than 100 years (National Center for Home Food Preservation, 2019). While preserving the bounty of one's garden and farm can provide a ready, and secure, food supply, many consumers across the country lack accurate information on safe home food preservation and many are unaware of the resources provided by Cooperative Extension and the U.S. Department of Agriculture. Consumers have become increasingly interested in gardening and home food preservation, with canning supply manufacturers reporting increased sales (Parekh, 2013). During the 2020 pandemic, a nationwide shortage of Mason canning jars and lids was reported by the media (Thrillist, 2020).

A national telephone survey of more than 2400 U.S. adults was conducted in 2005 to determine consumers' home canning knowledge. A total of 801 complete interviews were obtained (30% cooperation rate). Interview results indicated that, of the households preserving food for use at home, the most popular sources of instructions were family or friends (51%) and cookbooks (17%). Over 30% of home canners altered recommended canning procedures (National Center for Home Food Preservation, 2007).

Food preservation recommendations continue to evolve with scientific discovery, yet some home food preservers may not be following current, research-based recommendations. Taylor, Nichols, and Cook (2014) reported that using informal sources of home food preservation information, including family members, friends, and the Internet, were most common among those with fewer years of canning experience. Food improperly canned at home has been linked with botulism outbreaks, including a 2018 outbreak linked to homemade potato salad made with home-canned peas and a 2015 outbreak linked to potato salad made with home-canned potatoes, and processed in a boiling water canner (Ingham, 2019; McCarty et al., 2015, Morbidity and Mortality Report, 2015, 2018).

Our Experience and Impact

Historically, Extension efforts in home food preservation outreach have not been evaluated systematically and collectively across states. Since its formation in 2016, the North Central Food Safety Extension Network (NCFSEN) developed an award-winning tool to assess the effectiveness of food preservation programs published in the Journal of the National Extension Association of Family and Consumer Sciences (Garden-Robinson, et al, 2019). NEAFCS members from these states have regularly participated in the monthly Zoom meetings: Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota and South Dakota. In addition, food safety faculty/specialists from Illinois, Ohio and Wisconsin with a variety of professional affiliations have been members. The group regularly meets with Newell, Inc., maker of Ball jars, and has met with representatives from the National Center for Home Food Preservation and USDA-NIFA. The group recently created smaller teams from the overall group in the areas of general food safety for consumers and food entrepreneurship/cottage food safety.

NCFSEN has documented impact through training and evaluation. The original five-state team created standardized evaluation tools for home food preservation programs that were

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administered to more than 1,600 participants in the first year. Results showed that, after participating in an Extension program, individuals were significantly more confident in their home food preservation knowledge and their ability to share research-tested Extension recommendations with friends and family. A 3-month follow-up evaluation completed by 201 participants indicated 67% had changed their practices and 93.5% had shared research-tested recipes. Since that time, our group has expanded to include all the states in the North Central Region of the U.S.

From 2017-2019, a total of 4,487 participants in NCR programs completed a common end-of-session evaluation in response to Extension-delivered home food preservation training. Almost all (99%) of workshop participants in 2018 would recommend the educational program in which they participated to others. As a result of participation in an Extension home food preservation programs, nearly 80% planned to use the resources provided, 74% planned to preserve food more often at home, 66% planned to share what they learned with other people, and 59% planned to check if the food preservation resources they used at home were -up-to-date.

NCR home food preservation evaluation efforts have drawn national acclaim. In 2019, the original team received regional and national multistate collaboration awards from the NEAFCS for regional programming in home food preservation evaluation. The team gave three presentations at the 2019 NEAFCS annual conference in Hershey, PA. The regional project was also selected for a poster session at the National Consumer Food Safety Education conference in Orlando, FL in 2019. A manuscript describing the regional approach to program evaluation was accepted for publication (2020) in the national journal for NEAFCS. A poster describing NCFSEN efforts has been accepted for the 2021 National Consumer Food Safety Education conference. NDSU continues to provide outstanding web support for the food safety team, with coordination of monthly conference calls from Iowa State. There is a NCFSEN website at <https://www.ag.ndsu.edu/ncrfoodsafety> and NDSU continues to offer customized support for evaluation data entry and, upon request, generates annual data-reports for participating states.

Assessing Our Model: The 2020 Interview Process

During Summer 2020, 11 NCR food safety education team members participated in a study consisting of an 18-question interview by Zoom. The interviews lasted 27 to 52 minutes and were coded for qualitative themes. Networking, sharing resources, and collaborative problem solving were key elements in solid teamwork for delivering the most relevant and vital information our clients need in order to ensure food safety. All interviewees reported COVID-19 consumer concerns, including food safety while shopping and preparing food, handwashing, food hoarding, and use of disinfectants on food, as well as consumer-safe program delivery during pandemic conditions. The information from this study shows how important a tight, collaborative, highly-functioning group of Extension professionals is ready to handle a quickly shifting landscape during a public health crisis by delivering consumer-safe programming for safe food handling.

- Sample quote from interviews: “We share a lot of resources and we also serve as backups to each other, so we’re able to pose questions. If we get an unusual question we

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can share it with the group; therefore, we have a whole bevy of experts available to answer questions.”

Current NEAFCS Members of NCFSEN who have contributed to the overall effort:

Julie Garden-Robinson (North Dakota)

Shannon Coleman (Iowa)

Joyce McGarry (Michigan)

Susan Mills-Gray (Missouri)

Atina Rozhon (Indiana)

Megan Erickson (South Dakota)

Proposed Project

As many states have undergone staffing changes and program realignments, Extension’s role in home food preservation education has changed through the years. This changing role for Extension has meant changing roles for educators and specialists as well. Effective home food preservation education requires that educators have an in-depth knowledge of food safety and home food preservation practices and, as a result, it is often difficult for newer educators to meet traditional needs for effective home food preservation education. Subsets of our group have provided presentations through concurrent and poster sessions, and other states have shown interest in our model system. We have had no external funding in our five-year project.

The **overall goal** of this proposed project is to assist NEAFCS affiliate groups to create and lead regional teams to facilitate Extension networks on FCS topics. A secondary goal is to provide professional development in food safety/preservation. While our focus is on food preservation, this model could be used for other topics among our NEAFCS colleagues.

Objectives

- NEAFCS participants will learn how to form a state or regional network/team to foster professional development and share best practices in research-based programming.
- NEAFCS participants will be aware of strategies to evaluate program efforts across a state or region for maximum program impact.
- NEAFCS participants will gain knowledge and tools to form and lead state or regional teams.
- NEAFCS participants will be acquainted with food preservation resources from other states.

Outputs

- Three sessions delivered live on Zoom and recorded as MP4 files. The topics will be determined in conjunction with members of NCFSEN but tentatively include a) the process of developing collaborative evaluation tools and sharing of impacts with

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stakeholders, b) use of technology to organize and communicate across states/regions, and c) updates in food preservation.

- Three handouts, including a Best Practices in Regional Evaluation, Best Practices in Communicating Across States, and Best Practices in Food Preservation Education.
- Online evaluation tool to accompany the live/recorded sessions.
- Follow-up evaluation tool to determine if states try the techniques. The group also can serve to answer questions of NEAFCS participants.
- Updated regional food preservation resource website, which will house the recorded modules.
- Shareable social media (at least 12 posts) on best practices in home food preservation for any state to use.
- Written reports/updates to NEAFCS Foundation. Poster or concurrent session(s) at an NEAFCS conference; publication for the NEAFCS Journal.

Evaluation Process

A retrospective evaluation tool will be developed by the group, evaluated by survey design specialists and delivered through Qualtrics will be used to assess our webinar participants' knowledge gain and intentions.

A follow-up evaluation tool will be developed and delivered through Qualtrics to assess follow-up activity. All evaluation processes will be evaluated by the lead institution's Institutional Review Board prior to use.

Expected Outcomes

- NEAFCS participants will increase their knowledge of forming regional teams, as measured by a post-then-pre evaluation tool.
- NEAFCS participants will increase their knowledge of current "best practices" in safe food handling, as measured by a post-then-pre assessment tool.
- NEAFCS participants will practice their skills to form teams across counties, states or regions as measured by a follow-up evaluation tool.
- NEAFCS participants will get to know other NEAFCS members and this will strengthen nationwide teamwork as measured by a follow-up evaluation tool.

References

- Garden-Robinson, J., Nwadike, L., Ingham, B., Haraminac, E., Nichols, J., Mills-Gray, S., Rozhon, A. & Coleman, S. (2019). Measuring the regional impact of Extension home food preservation education using standardized evaluation tools. *Journal of the National Extension Association of Family and Consumer Sciences: 45*. Retrieved from: <https://www.neafcs.org/assets/documents/journal/2019-jneafcs/2019-JNEAFCS-FINAL-Web.pdf>
- Ingham, B. H. (2019). Botulism outbreak linked to home-canned peas. Retrieved from: <https://fyi.extension.wisc.edu/safepreserving/2019/04/02/botulismoutbreak-linked-to-home-canned-peas/>
- National Center for Home Food Preservation. (2007). Survey of home canning practices and safety issues in the U.S. Retrieved from: https://nchfp.uga.edu/papers/2007/2007iftposter_abstract.pdf
- National Center for Home Food Preservation. (2019). Historical information. Retrieved from: https://nchfp.uga.edu/educators/educators_home.html
- McCarty, C. L., Angelo, K., Beer, K. D., Cibulskas-White, K., Quinn, K., De Fijter, S., ... Rao, K. (2015). Large outbreak of botulism associated with a church potluck meal — Ohio, 2015. *Morbidity and Mortality Weekly Report*. Retrieved from <https://doi.org/10.15585/mmwr.mm6429a6>
- Morbidity and Mortality Weekly Report*. (2015). Notes from the field: Large outbreak of botulism associated with church potluck meal – Ohio, 2015. Retrieved from: <https://www.cdc.gov/Mmwr/preview/mmwrhtml/mm6429a6.htm>
- Morbidity and Mortality Weekly Report*. (2018). Notes from the field: Botulism outbreak associated with home-canned peas – New York City, 2018. Retrieved from: <https://www.cdc.gov/mmwr/volumes/68/wr/mm6810a5.htm>
- Parekh, R. (2013). Ball and its Mason jars get better with age – Thanks to Pinterest, DIY. *Advertising Age*. Retrieved from: <https://adage.com/article/behind-the-work/ball-mason-jars-agepinterest-diy/240911>
- Taylor, G., Nichols, A., & Cook, A. (2014). How knowledge, experience, and educational level influence the use of informal and formal sources of home canning information. *Journal of Extension, 52*(5). Retrieved from: https://joe.org/joe/2014october/pdf/JOE_v52_5rb6.pdf
- Thrillist*. (2020). We're in the midst of a Mason jar shortage and the culprit is shockingly obvious. Retrieved from: <https://www.thrillist.com/news/nation/mason-jar-shortage>

NDSU - Regional Extension Teamwork and Best Practices

Program Assistant Salary	2270
Program Assistant Fringe	230
Graphic Design Fee	500
Total	3000

See Budget Narrative for details.

We do not have outside funding for this project but this project could help us gather preliminary data to pursue larger federal grants in the future. Our team members' salaries, etc., are paid by the associated states.

Budget Narrative

We are requesting funding for two budget items to reach our goals, a program assistant and a graphic designer.

Program Assistant Salary \$2270

The program assistant will outline the concepts, assist with creation of 3 webinars/modules and 3 “best practices” handouts.
(75.7 hours @ \$30/hour)

The intended assistant has a Ph.D. in English/writing and is an expert in qualitative analysis. All of the group members are employed full-time at their universities. Having a person assigned to this regional task will assist the group members in accomplishing the goal of creating educational materials and a model system that can be shared nationally with NEAFCS members.

Program Assistant Fringe
The university’s rate for fringe benefits of part-time employees is 10% of salary. 230

Graphic Design Fee:

A graphic designer will set up the three handouts and assist with the graphic design of the modules.

(\$40/hour x 12.5 hours) 500

Total request: \$3,000

Team Members

NEAFCS Members of the Team

Julie Garden-Robinson, Ph.D., R.D., L.R.D. (North Dakota) is a professor and Extension Food and Nutrition Specialist, who specializes in nutrition and food safety education. She has more than 25 years of Extension experience. She is the co-leader of the North Central Region Food Safety Extension Network.

Shannon Coleman, Ph.D. (Iowa) is an Assistant Professor in the Department of Food Science and Human Nutrition at Iowa State University, where she works in food safety research/outreach. She is the co-leader of the North Central Region Food Safety Extension Network and also has participated in Food Safety Modernization Act (FSMA) training.

Joyce McGarry, M.S. (Michigan) is an Extension Educator at Michigan State University. She has worked in the area of Family and Consumer Sciences for more than 22 years. Her program emphasis is on food safety, and she is responsible for the development of the MSU Extension Consumer Food Safety Hotline.

Susan Mills-Gray, M.S. (Missouri) is an Extension State Specialist/Professor at the University of Missouri. Her areas of emphasis are food preservation and chronic disease prevention. She has been part of the food safety team since its inception.

Atina Rozhon (Indiana) is a Foods and Nutrition Extension Educator and County Extension Director for Purdue Extension in Jennings County. She has been part of the regional food safety team since its inception.

Megan Erickson, M.S., R.D., L.D. (South Dakota) is an Extension Nutrition Field Specialist for South Dakota State University. She has helped develop online food preservation modules and helps lead food preservation education in South Dakota.

Program Assistant for Project

Rebecca West holds a PhD in English with an emphasis on rhetoric, professional writing, and qualitative research. Currently, she works for NDSU Extension Service Food and Nutrition Division as a part-time researcher and writer. She conducted, transcribed, and analyzed the interviews with the NCR Extension Regional Food Safety Team as described in this proposal.

Graphic Designer for Project

David Haasser, BFA, works in the Agriculture Communication Department at North Dakota State University as a graphic artist. He developed the graphic identification for the regional food safety project and will assist with graphic design of the modules/handouts to be developed.

Regional Extension Teamwork and Best Practices

Timeline

Months 1 to 3: Finalize topics with team and outline three modules (approximately 45 minutes each) and accompanying handouts (approximately 2 pages each) with assistance from program assistant.

Months 4 to 6: Develop presentation modules in cooperation with NCFSEN (North Central Food Safety Extension Network) group members with assistance from program assistant.

Month 7 to 8: Review completed work. Work with professional editor and artist on layout and design of handouts and modules. Develop evaluation tool and submit to Institutional Review Board.

Months 9 to 12: Offer the educational sessions to NEAFCS members. Work with NEAFCS to market the webinars.

Deliver live presentations and record the modules on Zoom.

Archive the recorded sessions on the NCFSEN website. Update the website to house the “best practices” handouts.

Apply for a concurrent session and/or showcase of excellence session at NEAFCS.

Provide reports throughout progress as noted.

Close out the budget process. If needed, submit an extension within this timeframe.

Month 13 and beyond: Continue to update website and printable materials (no cost to project). Write a manuscript for NEAFCS. Deliver session(s) at NEAFCS conference.