The Program Excellence Team Award is to recognize teams for outstanding Extension educational program achievement relative to responsibilities. These team awards are based on the involvement of county, area, and/or state staff and partners in the design, delivery and evaluation of educational programs. Funding for these awards comes from Farm and Ranch Guide.

Application paperwork should include:

1. Name of program: Field to Fork: Enhancing the Safe Use of North Dakota Specialty Crops
2. Name, mailing address, phone and e-mail of person completing the application.

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3. Team members who contributed to the success of the program (individuals can be Extension and non-Extension staff).

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Allie Dhuyvetter, Program Assistant - HNES
Stacy Wang, Extension Associate - HNES
Bob Bertsch, Web Technology Specialist, Ag Comm
Deb Tanner, Graphic Designer, Ag Comm
Ellen Crawford, Editor, Ag Comm
Scott Swanson, Video Production Specialist, Ag Comm
Tom Kalb, Extension Horticulturist
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Todd Weinmann, Extension agent – Cass County
Kyla Splichal, Horticulture Research Specialist
Glenn Muske, Agribusiness Enterprise Development Specialist
Shaundra Ziemann-Bolinske, Family and Consumer Sciences Agent – Burleigh County
David Saxowsky, Associate Professor, Agribusiness/Economics
Application Narrative

This project was led by state staff with input and assistance from county and research center staff. It is a grant-funded program from the North Dakota Department of Agriculture Specialty Crops Program. It has served as professional development for internal staff and as training for hundreds of participants.

Ensuring safe, nutritious food is critical not only for the consumer but also for the specialty crops industry as a whole. This interdisciplinary project brings together several NDSU faculty, Extension staff, county/regional staff and external partners in a project designed to enhance knowledge and safe food handling of specialty fruit and vegetable crops from field to table. Specialty crops are defined as “fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops (including floriculture).” The project was submitted for funding because it had the potential to enhance the competitiveness of specialty crops by enhancing its safe production and use. NDSU Extension specialists and agents often are asked by the North Dakota Department of Agriculture and other entities to deliver food safety training workshops or to provide expert opinion.

Program development: Our project objectives, developed with input from an interdisciplinary team of Extension specialists, field staff and non-Extension partners, were finalized through communication via conference calls and emails. In order to address the critical needs of our growing number of specialty crop producers in North Dakota, we brought together an interdisciplinary team with background in food science, food safety, nutrition, horticulture, economics, entrepreneurship, and communication. We have delivered food safety training workshops in person, but reaching people through technology in our state and beyond is enhanced by technology-based delivery. Based on the input of staff, we identified key concepts and a venue (Blackboard Collaborate) that can be accessed on home computer or smart phones “live” or archived.

Our objectives were to 1) enhance safe production of specialty crops, 2) introduce entities to the development of Good Agricultural Practices and the Food Safety Modernization Act; and 3) long-term, help develop local and regional food systems.

Materials used/developed
All of our materials are based on research studies, from government agencies and the work of other Extension agencies throughout the U.S. Our interdisciplinary team has created the following outputs:

1) 14 webinars led by specialists and field staff, which were archived on YouTube for future use. An online registration system was used, with automated reminders. The topics have included 1) 10 steps to a fantastic garden, 2) how to grow berries in ND, 3) an introduction to the food safety modernization act, 4) using high tunnels to extend the growing season, extending the growing season, 5) manure, greenhouses and food safety; 6) small business savvy for promoting specialty crops; 7) farm to market: safe handling during processing and selling local foods; 8) facts and myths about food preservation; 9) what to expect during food safety audits, 10) labeling your foods for sale; 11) food fermentation; 12) growing bulbs; 13) extending the growing season; and 14) growing microgreens. All of the PowerPoints for the webinars were designed to create a “set” of Extension-branded materials that match each other in format and color.

2) A comprehensive website (www.ag.ndsu.edu/fieldtofork/choose-your-crop) that brings together new and existing Extension information about the following specialty crops: apples, chickpeas, dry beans, grapes, leafy greens, onions, potatoes, pumpkins, raspberries, snap beans, squash, strawberries, sweet
corn and tomatoes. For example, we linked all of the food preservation information related to each crop within the category for easy access. The website also includes links to our comprehensive Food Entrepreneurship website and our North Dakota Local Foods website.

3) 10 “Field to Fork” handouts designed for use in farmers markets. The handouts include growing, preparation and preservation information, recipes, as well as links to additional materials. The materials can be accessed here: www.ag.ndsu.edu/fieldtofork/choose-your-crop

4) An online minicourse (“Selling Home-processed, Home-canned and Home Baked Foods Using Specialty Crops”). This minicourse was created using “Versal” software that allows us to embed photos, quizzes and interactive quizzes. It is based on the guidelines of the North Dakota Department of Health and the Food and Drug Administration.

5) Marketing materials included Facebook infographics about the workshops and web-based materials, Facebook posts, county information releases, statewide information releases. We asked county staff to share broadly with master gardeners, fruit and vegetable producers and others with an interest in the topics.

Evaluation for the webinars has been conducted using a follow-up survey with Qualtrics technology. Those who complete the survey are able to download an NDSU Extension Service Field to Fork Certificate of Completion. In addition, Google Analytic software is used to determine the use of the website and time spent on the website by visitors. We also measure the views on youtube.

Outcomes. More than 450 people have attended our webinars to date. Of those 334 have completed the surveys associated with the project (87% female; 61% ages 41 to 64 and 20% 65 to 75). Using a pre-then post- evaluation design, the participant knowledge scores showed significant improvements after their attendance. On average, they scored themselves a rating of 2.74 on a 5-point scale (pre) and 4.14 on a 5-point scale (post). About half (49%) have indicated they will change their behavior as a result of the webinars, and 152 provided us with the practices they would be immediately changing in terms of production, processing, marketing or product use. For example several reported they planned to try planting fall crops, use high tunnels, keep better production records, purchase suggested seed varieties, start creating a food safety plan, change what they produce for farmers markets. Here is some feedback: “I will let vendors know what needs to be on labels for home-canned goods”; “I will wash my hands before working with fresh produce, not just after”; “I will be more careful where and when manure compost is used”; and “I will get a pH meter if selling my processed foods.” After the harvest is complete, a follow-up survey will be conducted this winter to learn additional outcomes.

Our website has been viewed by 4,740 visitors (3,632 unique visits). Our archived Youtube webinars have been viewed for a total of 10,351 minutes, with 1,038 views and 12 shares. The most popular pages on the website are the field to fork webinar registration page and the “choose your crop” pages, particularly apples and tomatoes.

Another achievement of a project such as this is the development of a new interdisciplinary team that combines state, research center and field staff with academic faculty and communication/ technology specialists. The project links nutrition, food safety and health with specialty crop production, entrepreneurship and marketing and used innovative methods to deliver and evaluate a new program.
Field to Fork: Enhancing the Safe Use of North Dakota Specialty Crops

The Situation
Ensuring safe, nutritious food is critical not only for the consumer but also for the specialty crops industry as a whole. Foodborne illness outbreaks related to fresh fruits and vegetables have risen in recent years. Specialty crops are defined as “fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops (including floriculture).” New regulations in the fruit, vegetable and cropping industry will demand that growers and consumers are up to date on regulations related to food handling.

Extension Response
In order to address the critical needs of our growing number of specialty crop producers in North Dakota, we brought together an interdisciplinary team with background in food science, food safety, nutrition, horticulture, economics, entrepreneurship, and communication. A series of 14 webinars were led by Extension specialists and field staff and were archived on YouTube for future use. The topics included growing a variety of vegetables, an introduction to the Food Safety Modernization Act, small business savvy for promoting specialty crops, food processing, high tunnel production and several other topics.

In addition, a comprehensive website (www.ag.ndsu.edu/fieldtofork/choose-your-crop) was developed to bring together new and existing Extension information, along with online modules, fact sheets and other educational materials.

Impacts
More than 450 people, including growers, Extension agents and master gardener volunteers, have attended our webinars to date. Of those 334 have completed the surveys associated with the project (87% female; 61% ages 41 to 64 and 20% 65 to 75). Using a pre-then post-evaluation design, the participant knowledge scores showed significant improvements after their attendance.

On average, the participants rated themselves 2.74 on a 5-point scale, with 1 being lowest (pre) and 4.14 on a 5-point scale (post). About half (49%) have indicated they will change their behavior as a result of the webinars, and 152 provided us with the practices they would be immediately changing in terms of production, processing, marketing or product use. For example several reported they planned to try planting fall crops, use high tunnels, keep better production records, purchase suggested seed varieties, start creating a food safety plan or change what they produce for farmers markets.

Feedback
“I will let vendors know what needs to be on labels for home-canned goods.”

“I will wash my hands before working with produce in the fields, not just after.”

“I will be more careful where and when manure compost is used.”

“I will get a pH meter if selling my processed foods.”

Contact
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