

# impact

University of Idaho Extension programs that are making a difference in Idaho.

## Smoking and grilling foods program increases learning across disciplines

### AT A GLANCE

A cross-disciplined family and consumer sciences and agricultural livestock team developed a food-based program that builds knowledge, skill and confidence in participants through an interactive program.

### The Situation

Smoking and grilling have been a long-standing popular cooking methods during summer months for home food preparation. These cooking techniques create a unique flavor profile for the food being prepared and have become increasingly popular because of this aspect. This has created increased interest in these cooking techniques which are now used year-round. Unfortunately, foundational food handling guidelines are not always known or followed by home food preparers. The Centers for Disease Control and Prevention (CDC) estimates that 48 million Americans will become sick from foodborne illnesses each year. According to the Partnership for Food Safety Education, 90% of Americans are cooking more than ever at home following the global pandemic. A lack of knowledge in proper food handling can make high-risk food safety concerns arise throughout food preparation, consumption and storage. Improper food handling, including cross-contamination concerns, are a primary concern when preparing food on a smoker or grill. When preparing meats, additional high-risk food pathogens become a concern if meat is not handled or cooked properly.

Additionally, many have limited knowledge regarding factors that affect end-product quality such as



Program participant utilizes a thermometer to check the temperature of the meat.

selecting and cooking meat. This includes understanding United States Department of Agriculture (USDA) quality grades, cut selection, degree of doneness, importance of resting and the impact of slicing direction.

### Our Response

In November of 2019, a cross-discipline, hands-on Smoking and Grilling workshop was implemented to educate clientele on food safety factors when smoking and grilling foods. This pilot program was co-taught by Extension educators in family and consumer sciences and agricultural livestock. At this five-hour program held in Marsing, Idaho, 22 participants (17 males and five females) were offered educational content focused on meat science and selection, food handling and

safety, USDA meat quality grades and distinction between the two cooking methods.

Following the pilot program, participant feedback contributed to program adaptation into a two-part workshop to accommodate a lecture, demonstration and hands-on components of this program.

Participants receive a lecture, demonstration and hands-on education to trim, season, and cook their own tri-tip and pork loin meat cuts. In addition, a live brisket trimming demonstration is performed during the workshop, and a fully cooked brisket is sampled at the completion of the workshop, along with the other smoked foods such as cheese, pepper jam and cheese-cake. This program structure contributes to knowledge, skill and confidence-building in participants.

### Program Outcomes

To date, this program has educated more than 100 adult participants in southwest Idaho. A significant factor in this program's success is the multi-disciplinary approach that has coupled a family and consumer sciences educator with enthusiasm for food safety and an agricultural livestock educator passionate about meat science, and smoking and grilling meat to enhance the educational experience of the participant.

Anonymous, voluntary responses in a retrospective evaluation were provided by 99 participants. The evaluation contained questions addressing knowledge gain and behavior change surrounding meat science, consumer-level meat purchasing decisions, and food handling and safety practices.

As a result of this program, 45% of participants reported they never or sometimes used a thermometer prior to their participation in this program, as compared to 92% of participants who planned to always or almost always use a thermometer when smoking and/or grilling meats.

Respondents were asked to describe their understanding before and after participation in this program on the following when smoking and/or grilling food:

- Understanding of meat cuts selection and differences improved from a mean of 2.59 to 3.99.
- Palatability education expanded from 3.17 to 4.28.
- Thermometer use and food safety developed from 3.39 to 4.44.
- Degrees of doneness comprehension enhanced from 3.39 to 4.29.
- Grill preparation knowledge increased from 3.03 to 3.81.

Respondents shared takeaways when asked “As a result of this program, please share two things you will put into practice”:

- 35 said they would regularly implement thermometer use or temperature checking.
- 34 stated they now had better knowledge for selecting and purchasing meat, including different cuts and the importance of marbling.
- 23 will use better meat preparation practices, including trimming.
- 22 will be mindful or aware of food safety.
- 21 planned on grilling or smoking foods more.
- 18 shared rub, spice, seasoning and sauce use in smoking and grilling.

### The Future

This team plans to continually offer programs, as multiple clientele have requested workshop availability. In addition, this team has shared programming efforts with professionals in and outside the state of Idaho.

### Cooperators and Co-Sponsors

Sean Cluff, Grubbin' BBQ.

### FOR MORE INFORMATION

**Surine Greenway**, Extension Educator • University of Idaho Extension, Owyhee County • 208-896-4104 • [surineg@uidaho.edu](mailto:surineg@uidaho.edu)

**Scott Jensen**, Extension Educator • University of Idaho Extension, Owyhee County • 208-896-4104 • [scottj@uidaho.edu](mailto:scottj@uidaho.edu)

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