

**Conference for Food Protection
2018 Issue Form**

Issue: 2018 III-023

Council Recommendation: Accepted as Submitted _____ Accepted as Amended _____ No Action _____

Delegate Action: Accepted _____ Rejected _____

All information above the line is for conference use only.

Issue History:

This is a brand new Issue.

Title:

Creation of a Committee - Safe Handling and Cooking of Roaster Pigs

Issue you would like the Conference to consider:

In the past three years, four *Salmonella* outbreaks have been reported that are associated with roaster pigs. Investigations repeatedly identified that inadequate handling prior to cooking and/or possible inappropriate cooking contributed to the outbreaks. This product is most often served during specialty events throughout the country, and is often prepared by caterers. Appropriate handling and cooking of roaster pigs can be challenging due to the varied and sometimes large size of roaster pigs (size can range from 50-200 pounds) and the fact that the whole animal is being cooked. Therefore, there is a need to provide targeted guidance for handling, preparing, and cooking roaster pigs. Food Safety and Inspection Service (FSIS) recommends that Conference for Food Protection (CFP) create a committee to develop guidance for retailers, including caterers, that addresses the unique issues associated with roaster pigs as they pertain to cold storage, cooking, and various avenues of cross contamination for an animal that can weigh up to 200 pounds. The guidance could be used to develop training materials and by Food Safety Managers as a reference in their Active Managerial Control Program.

Public Health Significance:

The Food Code (§3-401.11(A) (2)) recommends cooking non-intact pork products to 155°F for 15 seconds with additional options at lower temperatures for longer lengths of time. For stuffed pork products, the Food Code (§3-401.11(A) (3)) recommends that the product reach a temperature of 165°F for 15 seconds. However, due to the unique nature of the product, *Salmonella* outbreaks associated with roaster pigs continue to occur and show no indication of decline.

Inadequate handling and cooking of roaster pigs are reoccurring food safety issues. In the past three years, four *Salmonella* outbreaks have been associated with roaster pigs prepared and served at special events. One of the outbreaks in 2015 infected 192 patients across 5 states. Investigation findings indicated inappropriate methods for cold storage

prior to cooking that could lead to an outgrowth of bacteria that may not be destroyed completely during the cooking process.

The challenges of cooking an entire animal are not addressed by the currently available cooking guidelines. Also, current guidance does not address fully the unique challenges of cooking a whole animal, including large size, variation in bone and fat distribution which create temperate variations across the entire large animal, control of humidity during the cooking process, cross contamination of clothes when moving the animal to the cooking location, appropriate methods for thawing of a large animal, and appropriate methods for maintaining cold temperatures prior to cooking. Inadequate cooking may occur because the whole animal is being cooked (instead of the parts). In addition, roaster pigs are often stuffed prior to cooking. When cooking parts, it is much easier to control the temperature and humidity of the oven and subsequently ensure even cooking of the food. However, when cooking a whole animal, it is challenging to control the temperature and humidity, especially when the animal is cooked in an open pit or grill as is often the case for roaster pigs. Each part may heat up differently depending on the muscle type, thickness, and proximity to the bone (How to Roast a Pig). For those roaster pigs that are stuffed, by the time the stuffing in the center of the animal reaches the appropriate temperature, the outer layers of the pig may be scorched, dried out, and unpalatable. Guidance could include methods to increase the humidity during cooking. Adding humidity to the cooking process prevents the surface from drying out, facilitates cooking, prevents heat resistance in the pathogens, and improves palatability. The guidance could also provide methods to ensure all parts of the pig are cooked thoroughly, where to place the thermometer, factors that could influence temperature (e.g., near joints, thickness of product), and at what depth. If the pig is stuffed with additional meat or other food items, the stuffing could remain cooler than the rest of the pig (FoodSafety.gov, Food Poisoning Bulletin). Providing this guidance could give retailers additional information to achieve the time and temperature recommendations in the Food Code.

Cross contamination, although not specifically mentioned in the recent outbreak reports, could also be a factor leading to illnesses. While cross contamination could be associated with any product, roaster pigs present a unique situation due to the size of the product. For example, caterers may clean or change utensils after cooking the product, however, they may not consider changing the clothes they are wearing as they carry the pig to the roasting location. This could also be the case for other retail food establishments that produce roaster pigs.

Forming a committee to develop a guidance document on safe handling and cooking of roaster pigs would provide a valuable resource for those retailers and caterers that infrequently prepare roaster pigs by raising awareness of lessons learned from past outbreaks and best practices used throughout the industry. This guidance document would provide best practices for properly thawing or maintaining at appropriate temperatures prior to cooking, cooking, and measuring the temperature of roaster pigs. It would also provide information on avoiding cross contamination associated with the preparation and cooking of roaster pigs. By following the information in the guideline, retailers would ensure that the roaster pigs are thoroughly cooked, thereby, decreasing the likelihood of foodborne illness to consumers.

References

- FSIS 2015 Public Health Alert: <https://www.fsis.usda.gov/wps/portal/fsis/newsroom/news-releases-statements-transcripts/news-release-archives-by-year/archive/2015/pha-073115>
- FSIS 2016 Public Health Alert: <https://www.fsis.usda.gov/wps/portal/fsis/newsroom/news-releases-statements-transcripts/news-release-archives-by-year/archive/2016/pha-072016>
- FSIS 2017 Public Health Alert: <https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/foodborne-illness-investigations/outbreaks-salmonella-pork-products-2015-2016>
- CDC 2015 Recall and Alert: <https://www.cdc.gov/salmonella/pork-08-15/recall-advice.html>
- Foodsafety.gov, Pig Roasting and Food Safety: <https://www.foodsafety.gov/blog/2016/12/pig-roasting.html>
- Food Safety Tech Sheet, Washington State Department of Health: <https://www.doh.wa.gov/Portals/1/Documents/Pubs/332-165.pdf>
- Food Poisoning Bulletin, Pig Roasting and Food Safety: <https://foodpoisoningbulletin.com/2016/pig-roasting-and-food-safety/>
- How to Roast a Pig: <http://www.esquire.com/food-drink/food/a29391/how-to-roast-a-pig/>

Recommended Solution: The Conference recommends....:

that a Committee for Safe Handling and Cooking of Roaster pigs be created composed of members from all constituencies in the CFP. The Committee will be charged with:

1. Identifying best practices or any existing guidance documents, that relate to proper handling and storage of roaster pigs of various sizes.
2. Developing a comprehensive guidance document for food handlers, particularly caterers, that include detailed best practices for roaster pig preparation. These recommendations would include proper handling, thawing, cooking, and temperature measurement of roaster pigs.
3. Determining appropriate methods of sharing the committee's work, such as:
 - a) Posting to state and local health department websites or resource libraries,
 - b) Incorporating into CFP training programs, posting to the CFP website, and
 - c) Sending a letter to the FDA requesting that the Food Code, Annex 2 (References, Part 3 - Supporting Documentation) be amended by adding references to the new guidance document as well as any existing guidance documents that the committee recommends.
4. Reporting the committee's findings and recommendations to the 2020 Biennial Meeting of the Conference for Food Protection.

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