Meat Messenger

North Dakota State Meat and Poultry Inspection Program 2011 Quarter 2

Help North Dakota Families that are Struggling to Meet their Basic Food Needs

In 2010, nearly 30 processors across the state participated in the Sportsmen Against Hunger Program (SAH) administered by North Dakota Community Action Partnership (NDCAP), a nonprofit agency that serves low income families across the state. SAH raises money for the cost of processing of donated deer and coordinates distribution of ground venison to food pantries around the state. Local food pantries are then able to offer it as a healthy option to people seeking assistance to meet their basic nutritional needs.

NDCAP began working with community wildlife groups to join the SAH program in 2004 to address statewide hunger problems. Needs assessments conducted by NDCAP indicated hunger as a top need for low-income families. Meat and other quality protein items are often difficult for pantries to access because of cost and availability. Most food drives will collect canned and dry goods, but very little meat. In a recent survey, food pantries throughout ND indicated they were willing to accept over 70,000 pounds of venison if it were available.

The biggest challenge facing the SAH program is paying for the cost of processing of venison or other wild game donated by those who hunt. Sometimes the person donating the meat will pay for the processing as part of the gifting process. NDCAP, in conjunction with almost two dozen wildlife groups and other sponsors across the state, work hard to raise funds to cover costs. Processed venison is then distributed to food pantries and other emergency food outlets, often times by the club members themselves.

When SAH was launched in 2004, the program accepted 115 donated deer. In 2010, 302 deer were donated in addition to 91 elk from the Theodore Roosevelt Park Elk Reduction Program.

In addition to accepting deer shot with firearms, SAH strongly encourages bow hunters to donate deer as well.

Processors interested in becoming a partner of SAH can contact Ann Pollert at 701.232.2452 or annp@sendcaa.org

Meat Messenger

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USDA Announces Availability of Compliance Guide to Help Reduce Foodborne Illness

April 2011, FSIS

The U.S. Department of Agriculture´s Food Safety and Inspection Service (FSIS) is providing a set of draft guidelines to help small and very small meat and poultry manufacturers reduce harmful bacteria in ready-to-eat foods. This guide sets out standard regulatory procedures and will help establishments understand how best to operate to ensure a safer quality product.

"The prevention of foodborne illness is our top priority," said Al Almanza, Administrator of FSIS. "These guidelines spell out FSIS´ recommended best practices when it comes to producing food items that consumers usually do not cook before eating. Our goal is to help industry apply some of the recent lessons we have learned so they can prevent future problems, resulting in safer ready–to–eat food for consumers."

In light of several illness-related recalls in 2010, FSIS has improved guidelines for ready–to–eat meat and poultry products with special emphasis on the causes of these recalls. In some instances pathogens were introduced to the products after it had undergone processing. This compliance guide illustrates measures to help prevent contamination in these types of situations, such as the application of a spice or sauce to products after cooking or curing.

The draft guide does not represent new requirements for the meat and poultry industry but will assist small and very small manufacturers in meeting current FSIS regulations. FSIS will post the draft compliance guide on its Significant Guidance Documents website at www.fsis.usda.gov/ Significant_Guidance/index.asp. or http://www.fsis.usda.gov/News_&_Events/NR_042511_01/index.asp

Upcoming: September is Food Safety Month

Look for food safety education month material at www.fsis.usda.gov, and browse by subject "Food Safety Education". And also at www.foodsafety.gov, talks about Selected Federal Agencies with a Role in Food Safety

The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture, the U.S. Food and Drug Administration (FDA), and the Centers for Disease Control and Prevention (CDC) serve important roles in ensuring food safety in the United States.

Keep Commercial Slicers Safe

Did You Know...?
Deli slicers commonly used in retail and foodservice establishments to slice meats, cheeses and produce may become difficult or impossible to properly clean and sanitize after a period of use. Failure to adequately clean and sanitize all surfaces of a deli slicer can contaminate food and cause illnesses or death.

- Recent outbreaks of foodborne illness have been associated with the build up of food soils and disease-causing microorganisms on areas of deli slicers that are difficult to clean and sanitize.
- Outbreaks of serious illness and hospitalizations have resulted.
- Many seams between the connected parts and components of a typical delislicer are sealed with sealants and gaskets.

These seams can become worn, degraded or removed as a result of the heavy use and cleaning process that deli slicers undergo. As these seals and gaskets become degraded, spaces can be created that can trap debris and moisture, which can lead to areas that may not be able to be adequately cleaned and sanitized under normal cleaning conditions.

Deli Slicer Problem Areas That Are Hard To Clean
Carefully monitor these areas for any cracks, broken, missing or unattached parts:
- Ring Guard Mount: Food soil accumulation at the ring guard mount.
- Blade Guard: Food soil accumulation on the inside of the blade guard at the white plastic piece.
- Slicer Handle: Surfaces under the slicer handle can accumulate food soil and debris and require monitoring to prevent build-up.

What YOU Can Do
CLEAN and SANITIZE deli slicers per manufacturer's instructions at least once every four hours in order to prevent the growth of disease-causing bacteria.
- Keep the instructions posted near the slicer location and follow them closely.
- Simply wiping down a slicer to remove visible debris is not a substitute for thoroughly cleaning and sanitizing the equipment.

Routinely examine the condition of seams, seals and gaskets to confirm integrity of these seals while the slicer is assembled and before breaking down for cleaning and sanitizing.
- Look in hard-to-reach areas for food and liquid accumulations.

If a seal or gasket is broken, missing, unattached, defective or otherwise not performing its function, remove the slicer from service immediately and contact the slicer manufacturer for repair or replacement.
- All repairs should be performed by the manufacturer's authorized service representative or using repair kits available from or provided by the original manufacturer.

Have the slicer professionally serviced according to the manufacturer's recommended schedule.
- Ensure that the servicing includes examination of all seams and the routine replacement of seals and gaskets.
- Proper servicing may require that components be removed and then reattached with the proper reapplication of sealants or gaskets.

For additional copies and more information visit: New FDA Materials on Sanitation Concerns with Commercial Deli Slicers at www.fda.gov (Home>Food>Food Safety>Retail Food Protection)

Short PSA Videos Aim to Get Cooks to Change Their Ways

By Cornell University

"Ugly bugs" that can cause foodborne illness are in the spotlight as part of public service announcements (PSA) released by Cornell and distributed by the non-profit Partnership for Food Safety Education (PFSE).

Cornell's Departments of Communication and of Food Science joined forces to create the four 30-second, scientifically accurate videos that feature the importance of safe home food handling in keeping a family healthy. By using vignettes, the PSAs aim to change consumer behaviors, says Michael Shapiro, associate professor of media psychology and principal investigator; Robert Gravani, professor of food science, is co-principal investigator.

"Research indicates that most home cooks know about important home safe food handling recommendations but don't consistently act on them," says Shapiro. "Narratives are more engaging for people -- they remember them better and tend to counter-argue them less. Telling stories within each PSA also allowed us to show ordinary people making safe food handling a critical part of meal preparation."

PFSE, which works to reduce the incidence of foodborne illness and improve public health through research-based, actionable consumer food safety education initiatives, helped connect the Cornell researchers with food safety experts from government and industry as well as distributing the PSAs.

The PSAs are the culmination of a process that used a series of consumer focus groups of people who cook regularly for their family and friends to provide feedback at every stage of development, as well as surveys and experiments.

"One of the most interesting observations from some of our focus groups was that home cooks have strong needs to present themselves as a good cook and that some safe practices -- particularly using a food thermometer -- were actually associated with inexperience as a cook," said Shapiro. "These cooks liked realistic PSAs that depict what they might encounter in their daily lives and story characters that reflect the person ideally they want to be."

Later in the process, while audience members watched the PSAs, researchers at Indiana University's Department of Telecommunications and University of Missouri's School of Journalism measured their psychophysiological reactions, including heart rate, skin conductance and facial muscle activation. The audience also gave feedback on each PSA.

The two PSAs that did the best job of getting the message across and connecting with the audience were:

- "Chef Daddy," which shows how easy it is to keep things clean, keep cooked and raw foods separate, and cook and keep food at the proper temperature.
- "Ugly Bug," which addresses separating raw and cooked foods, how to check temperatures on small pieces of meat, how to use food thermometers and the risks of harmful pathogens to the elderly and the young.

Both can be viewed and downloaded at http://www.fightbac.org. Food retailers and health educators are encouraged to use the videos for in-store and community programming. Ideas for using the videos, quizzes and other content can be downloaded at the same site.

"The Cornell public service announcements give us a terrific, consumer-tested tool that can help us reach more consumers about why it is so important to consistently practice safe food handling at home," said Shelley Feist, PFSE's executive director. "We hope educators will utilize the PSAs to address the Healthy People 2020 objective to increase the proportion of consumers nationwide who practice the basic safe food handling behaviors of clean, separate, cook and chill."

The project was funded by the U.S. Department of Agriculture's National Institute of Food and Agriculture.

For more information go to http://www.news.cornell.edu/stories/April11/PSAsFoodSafety.html

APUC Awards Seven Funding Requests

The North Dakota Agricultural Products Utilization Commission (APUC) awarded funding requests for seven projects totaling $297,500 at its quarterly meeting held on May 19th at the Alerus Center in Grand Forks.

APUC is a program of the North Dakota Department of Commerce that administers grant programs for research and development of new and expanded uses for North Dakota agricultural products. The grants can be used for basic and applied research, marketing and utilization, farm diversification, nature based agri-tourism, prototype and technology, and technical assistance.

The mission of the Agricultural Products Utilization Commission (APUC) is to create wealth and jobs through the development of new and expanded uses of North Dakota's agricultural products through a grant program.

A maximum of 15 qualifying applicants present funding proposals on a quarterly basis:
- basic and applied research grants
- marketing and utilization grants
- farm diversification grants
- agricultural prototype development grant program

For more information on APUC and deadlines on upcoming grants, visit www.ndapuc.com or call 701-328-5318.

Difference Between Verification and Validation

Plant Verification 101: Interacting with inspectors before, during and after a study is performed.
By Robert Maddock, Ph.D

First, let's quickly review the difference between verification and validation. Verification are those activities that ensure a HACCP or food safety plan is meeting the goals of the plan. Validation is the process of demonstrating that the HACCP system as designed can adequately control identified hazards to produce a safe product. The following is a discussion of the expectations of USDA inspectors when conducting verification/validation studies. An extensive document available at www.fsis.usda.gov addresses verification studies. I have taken the main points from this document and will list them, along with some additional information.

The scientific or technical justification or documented basis for decisions made for the HACCP/food safety plan often entails collecting scientific and technical documentation that demonstrate the HACCP work in theory. Meat and poultry regulations require that each establishment validate the adequacy of its HACCP plans in controlling those food safety hazards identified during the hazard analysis. The hazard analysis must have supporting documentation for each step of a HACCP plan in order to show that the establishment accounts for all hazards likely to occur, and in particular those steps that reduce, eliminate, or prevent food safety hazards. This means you need to especially validate your critical control points (CCPs) and your critical limits (CLs).

The documentation assembled to validate a HACCP plan usually consist of two types:
1. HACCP design type of documentation: Theoretical principles, expert advice from processing authorities, scientific data, or other information demonstrating that particular process control measures can adequately address specified hazards.
2. HACCP execution type of documentation such as in-plant observations, data, measurements, test results, or other information demonstrating that the control measures, as written into a HACCP plan, can be operated within a particular establishment to achieve the intended food safety objective.

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There are five primary types of scientific supporting documentation:

1. Published processing guidelines that achieve a stated reduction of a pathogen. The cooking guidelines in Appendix A of the final rule "Performance Standards for the Production of Certain Meat and Poultry Products" is one of the best examples of this processing guideline. Appendix A can be found at: www.haccpalliance.org.
2. A scientific article from a peer-reviewed journal (side note, a peer-reviewed journal is a scientific journal in which researchers report their results, and these journals go through an extensive review process to ensure that the information is valid) that the process can provide adequate supporting documentation. The catch is, your process must very closely match the description of the methods in the paper, or the results are not especially valid. For example, a paper that reports pathogen control on poultry may not be valid for pork carcasses. If the processes are not similar, the processor needs to provide additional support for the process.
3. A challenge study that is designed to specifically investigate the question of a processor is another form of documentation. These studies are typically performed in a laboratory or pilot plant by a processing authority (university or lab).
4. Data gathered in-house can also be used to validate a process. This involves taking reported research and applying the process in the working environment. By gathering data in-house, you can modify the process and still prove that the information you found is valid. The documentation used for in-plant validation should note the exact processing parameters use. You can deal in generality when conducting research.
5. Regulatory performance standards as defined by USDA in the Code of Federal Regulation that outline specific prescribed procedures such as time/temperature combination, product storage conditions, or product reconditioning procedures are always valid. This is USDA data, so it should be acceptable for use, as long as your processing parameters are similar to what is being reported by USDA.

Another important consideration is how best to conduct the research. The previous set of articles helps to describe designing and analyzing research. According to USDA, you should be able to demonstrate that the intervention implemented within the specific establishment environment actually achieves the effect documented in the scientific supporting documentation. This second step is important because often laboratory conditions may be different than actual conditions in the establishment. Specifically, USDA says, "Laboratory conditions present a highly controlled environment. Specific log reductions or ease of monitoring critical parameters achieved in the laboratory may not be easily attainable in an actual establishment setting."

In-Plant Validation: Critical Operational Parameter Observations and Measurements for Individual Process Steps and Interventions.

For an establishment to validate an intervention, it should first identify that the critical operational factors can be monitored within its process. These critical operational include time, temperature, pressure, concentration, or log reduction. Once the critical parameters are identified from the scientific support and incorporated into the HACCP system, the establishment should repeatedly test the HACCP system by gathering operational data.

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Plants should answer several questions as the validation plan is developed:

1. **Where should samples be collected?**
   FSIS expects some level of in-plant data collection to substantiate that interventions are achieving the desired effect within the establishment environment as designed in the HACCP system. You should collect samples at the beginning of the process; that is, before any interventions have been applied (this is done to determine if the intervention has actually improved the safety of the product. Then you collect another set of samples after the intervention has been applied. Also, at a minimum, FSIS believes that collecting samples at a point after all interventions or ideally from finished and packaged products is necessary to determine whether the HACCP system, as designed, is capable of producing safe, unadulterated products. These data can be used in conjunction with the data gathered measuring the critical parameters of each intervention to determine whether the HACCP system is functioning as intended.
2. **What laboratory analyses should be performed?**
   Never introduce potential pathogens into a processing environment. While this seems to be simple common sense, it is possible to get caught up in conducting challenge-type research and think you can closely control product to be tested. Rather than using pathogens, you should use indicator organisms. Space constraints limit the discussion here on indicator organisms. Your best bet is to contact experts in the area to determine the indicator organisms for which you should be testing. Indicator organisms are usually bacteria that have similar growth patterns as pathogens, but do not cause sickness or are not regulated by USDA.
3. **How many samples should be collected?**
   The number can vary widely based on what you are trying to accomplish. Again, check with an expert, but the answer is generally the more the better unless cost becomes a big issue. You need to evaluate more than a couple of samples for a valid study.
4. **How many types of products should be sampled?**
   According to USDA, establishments should collect microbial data for at least one product from each HACCP category utilized. If products are very similar, it may be possible to conduct one study and use the results across different product lines. However, if there are large differences, for example, in cooking schedules, you may need to conduct studies for each product.

Some other points to consider:

- Conducting research as part of verification, especially if the objective is to change, add, or remove a critical control point, or alter a critical limit, should involve communication with inspection before, during, and after the project.
- Inpectors, even IIC's, are not often trained in statistical analysis and research project design, so be prepared to justify your decisions. You may know more than inspection in many cases, and if you have contacted a processing authority for assistance, your stance will be easier to defend.
- Make sure that what you do will be satisfactory to inspection. Otherwise, what was the point?

The author is an associate professor of animal science at North Dakota State University. His article appears here, courtesy of meatingplace.com, published by the Marketing & Technology Group. For more information, see www.meatingplace.com.

RTE and Safe Handling From Cross Contamination

By Jerry Sauter

Overview

Safe handling of ready-to-eat products is an extremely important aspect to food safety. After the cooking step, ready-to-eat products should be treated as a fragile article. The introduction of even a seemingly miniscule amount of pathogens can lead to a dramatic impact on pathogen growth in or on the surface of the product. Consider the leading pathogens of concern for cross contamination.

Salmonella

The bacterium Salmonella causes the intestinal infection salmonellosis, the second most common bacterial foodborne illness in the U.S. with an estimated 1.4 million cases annually. (www.cdc.gov/salmonella/genera l/technical.html#incidence.) The incidence of salmonellosis appears to be rising in the U.S. and other industrialized nations. S. enteritidis isolations from humans are up sharply in the past decade.

Salmonella occurrence in animals, especially poultry and swine, is widespread. Environmental sources of the organism include water, soil, insects, factory surfaces, kitchen surfaces, animal feces, raw meats, raw poultry and raw seafood. www.fda.gov/Food/FoodSafety/FoodborneIllness/FoodborneIllnessFoodbornePathogensNaturalToxins/BadBugBook/ucm069966.htm.

Salmonella does not usually affect the taste, smell or appearance of food. The bacteria can survive several weeks in a dry environment and several months in water. http://en.wikipedia.org/wiki/Salmonella.

In general, fully cooked or "ready-to-eat" products are cooked according to Appendix A, a guideline issued by the USDA's Food Safety Inspection Service (FSIS) to help processing plants reduce salmonella. A processor may choose to use a different cooking process to meet compliance for the reduction of bacteria but will need to prove that the method is effective.

Degrees Fahrenheit	Degrees Centigrade	6.5-log10 Lethality	7-log10 Lethality	Degrees Fahrenheit	Degrees Centigrade	6.5-log10 Lethality	7-log10 Lethality
130	54.4	112 min.	121 min.	137	58.4	23 min.	24 min.
131	55.0	89 min.	97 min.	138	58.9	18 min.	19 min.
132	55.6	71 min.	77 min.	139	59.5	15 min.	15 min.
133	56.1	56 min.	62 min.	140	60.0	12 min.	12 min.
134	56.7	45 min.	47 min.	141	60.6	9 min.	10 min.
135	57.2	36 min.	37 min.	142	61.1	8 min.	8 min.
136	57.8	28 min.	32 min.	143	61.7	6 min.	6 min.

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Degrees Fahrenheit	Degrees Centigrade	6.5-log10 Lethality	7-log10 Lethality	Degrees Fahrenheit	Degrees Centigrade	6.5-log10 Lethality	7-log10 Lethality
144	62.2	5 min.	5 min.	153	67.2	34 sec.	37 sec.
145	62.8	4 min.*	4 min.*	154	67.8	27 sec.	29 sec.
146	63.3	169 sec.	182 sec.	155	68.3	22 sec.	23 sec.
147	63.9	134 sec.	144 sec.	156	68.9	17 sec.	19 sec.
148	64.4	107 sec.	115 sec.	157	69.4	14 sec.	15 sec.
149	65.0	85 sec.	91 sec.	158	70.0	0 sec.**	0 sec.**
150	65.6	67 sec.	72 sec.	159	70.6	0 sec.**	0 sec.**
151	66.1	54 sec.	58 sec.	160	71.1	0 sec **	0 sec.**
152	66.7	43 sec.	46 sec.				

For instant lethality (no holding time), product should be treated to 160 degrees Fahrenheit to account for an thermometer calibration discrepancy.

Appendix A can be found at http://www.fsis.usda.gov/oa/fr/95033F-a.htm

Listeria

Listeria is almost everywhere in nature. The organism has been found in many domestic and wild animals, fish, birds, insects and snails. It has been isolated from a variety of products, including raw milk, cheese made from unpasteurized milk, soft cheese, meat and poultry products, coleslaw, and cabbage. It can survive for long periods of time in soil, leaf litter, sewage, silage dust, vegetation, and water. It is commonly found in the intestines of animals and humans without causing illness. (www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/topics/lmguide.htm).

L. monocytogenes bacteria are found frequently in the food-processing environment and can form biofilms on solid surfaces commonly found in the food processing plants, such as stainless steel and rubber. Listeria can also survive adverse conditions on apparently smooth surfaces. (http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/topics/lmguide.htm)

*Freezing product does not kill these bacteria, it may put them in a non-active state but once in warmer conditions growth may reoccur.

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Tips on preventing cross contamination

- Workers should put on a clean apron, coat, and gloves (or wash their hands) before removing product from the smokehouse or before vacuum packaging.
- When moving fully cooked product out of smokehouse, avoid contact between the smoker cart or product with any surface, such as walls, cooler door and handle, shelving and other smoker carts, that has not been cleaned and sanitized.
- If the facility has two separate coolers, use one for ready-to-eat product and the other for raw products.
- If the facility has only one cooler, adequately separate raw products and equipment used to handle raw product (carcass hooks, grinder parts, lugs, etc.) from ready to eat products.
- Make sure employees know each product's identity.
- In a facility with only one cooler, put the product after it has sufficiently cooled in a container that can be easily covered and cover it until it is ready to be vacuum packaged.
- Finish packaging of ready-to-eat product before packaging anything that is not fully cooked.
- Place completed packages in a clean container that can be covered. When it is full, cover it and return it to the cooler. If meat boxes are reused for this, the boxes should be lined with plastic and operators should wash their hands or change gloves.
- After packaging products, keep raw and fully cooked products and any equipment used for raw product processing separate.
- Utensils, cutting boards and equipment that have come into contact with any raw product should be cleaned and sanitized before being used for any ready-to-eat product.
- Consider the exterior of all boxes as contaminated, Wash hands after handling boxes.

Small steps such as an extra hand washing here and there or changing a dirty apron before handling fully cooked product can have a huge impact on food safety.

USDA Revises Recommended Cooking Temperature for All Whole Cuts of Meat, Including Pork, to 145 °F

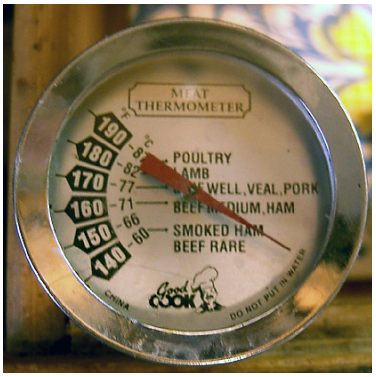
Cooking Temperature for Ground Pork, Beef, Veal, Lamb remains at 160 °F

Kathy Bernard - USDA May 2011

The U.S. Department of Agriculture (USDA) is updating its recommendation for safely cooking pork, steaks, roasts, and chops. USDA recommends cooking all whole cuts of meat to 145 °F as measured with a food thermometer placed in the thickest part of the meat, then allowing the meat to rest for three minutes before carving or consuming.

This change does not apply to ground meats, including ground beef, veal, lamb, and pork, which should be cooked to 160 °F and do not require a rest time. The safe cooking temperature for all poultry products, including ground chicken and turkey, remains at 165 °F.

"With a single temperature for all whole cuts of meat and uniform 3 minute stand time, we believe it will be much easier for consumers to remember and result in safer food preparation," said Under Secretary Elisabeth Hagen. "Now there will only be 3 numbers to remember: 145 for whole meats, 160 for ground meats and 165 for all poultry."



USDA is lowering the recommended safe cooking temperature for whole cuts of pork from 160 °F to 145 °F and adding a three-minute rest time. The safe temperature for cuts of beef, veal, and lamb remains unchanged at 145 °F, but the department is adding a three-minute rest time as part of its cooking recommendations. Cooking raw pork, steaks, roasts, and chops to 145 °F with the addition of a three-minute rest time will result in a product that is both microbiologically safe and at its best quality.

Why the Rest Time is Important

A "rest time" is the amount of time the product remains at the final temperature, after it has been removed from a grill, oven, or other heat source. During the three minutes after meat is removed from the heat source, its temperature remains constant or continues to rise, which destroys pathogens. USDA's Food Safety and Inspection Service (FSIS) has determined that it is just as safe to cook cuts of pork to 145 °F with a three minute rest time as it is to cook them to 160 °F, the previously recommended temperature, with no rest time. The new cooking suggestions reflect the same standards that the agency uses for cooked meat products produced in federally inspected meat establishments, which rely on the rest time of three minutes to achieve safe pathogen reduction.

Appearance of Cooked Pork

The new cooking recommendations clarify long-held perceptions about cooking pork. Historically, consumers have viewed the color pink in pork to be a sign of undercooked meat. If raw pork is cooked to 145 °F and allowed to rest for three minutes, it may still be pink but is safe to eat. The pink color can be due to the cooking method, added ingredients, or other factors. As always, cured pork (e.g., cured ham and cured pork chops) will remain pink after cooking.

Appearance in meat is not a reliable indicator of safety or risk. Only by using a food thermometer can consumers determine if meat has reached a sufficient temperature to destroy pathogens of public health concern. Any cooked, uncured red meats – including pork – can be pink, even when the meat has reached a safe internal temperature.

For more information about raw pork, including storage information, see our fact sheet at www.fsis.usda.gov/Fact_Sheets/Pork_From_Farm_to_Table. Consumers can also "Ask Karen," FSIS' virtual food safety representative, at AskKaren.gov or m.AskKaren.gov (Mobile Ask Karen) on your smartphone. Mobile Ask Karen is a web-based app that makes "Karen" more accessible and adaptable to today's on-the-go lifestyle. Now, Americans can take Karen with them – in the grocery store aisle, outside to the grill – anywhere you need information on food preparation or food safety tips. Just like using Ask Karen from a desktop or laptop computer, consumers can search for nearly 1,500 answers by topic or by product.

Classifieds

Wanted: Used scale, any brand, has to be able to print labels with at least 300 characters. Please call Leroy Mattern at 701-228-2054.

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