

# Preventing Foodborne Illness and Improving Beef Safety | fact sheet



## Commitment to Safety

The top priority for cattle farmers and ranchers is to raise the safest and highest quality beef in the world. Since 1993, cattle farmers and ranchers, through the beef checkoff, have invested over \$30 million in safety research programs. The industry as a whole invests over \$550 million annually in beef safety research and technology implementation.

## *Escherichia coli*

- *Escherichia coli*, or *E. coli* for short, are a large and diverse group of bacteria that live in the intestines of healthy people and animals.<sup>1</sup>
- *E. coli* O157:H7 is a specific strain of *E. coli* that produces toxins damaging to the lining of the human intestine. It was first recognized as a disease-causing organism in 1982.
- Other forms (called serogroups) of *E. coli* may cause illness. These other kinds are sometimes called non-O157 STEC.
  - The beef community began testing beef trimmings for six additional strains of *E. coli* on June 4, 2012, including: *E. coli* O26, O111, O103, O121, O45, and O145.
- The incidence of *E. coli* O157 infection has been reduced to less than one case per 100,000 people, meeting the Centers for Disease Control (CDC) Healthy People 2010 goal.<sup>2</sup> The new CDC goals call for continuous reduction and the beef community is committed to meeting this goal.

## *Salmonella*

- *Salmonella* are a large and diverse group of bacteria that live in the intestinal tract of various animal species, including cattle, swine and poultry.
- Salmonellosis is an infection with bacteria called *Salmonella*. These bacteria have been known to cause illness for over 100 years. They were discovered by an American scientist named Salmon, for whom they are named.
- *Salmonella* Typhimurium, S. Enteritidis, and S. Newport are the most common forms of *Salmonella* implicated in human infections.<sup>3</sup>
- *Salmonella* infections can be life threatening for people with compromised immune systems or can be mild enough that a person can recover without treatment or ever visiting a doctor.

## Preventing Foodborne Illness

- The goal of the beef community is to eliminate foodborne pathogens from the beef supply chain by:
  - Placing multiple safeguards along the way and;
  - Minimizing the possibility that these pathogens survive the journey.

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<sup>1</sup> Centers for Disease Control and Prevention, *E. coli*: <http://www.cdc.gov/ecoli/general/index.html>

<sup>2</sup> Vital Signs: Incidence and Trends of Infection with Pathogens Transmitted Commonly Through Food – Foodborne Diseases Active Surveillance Network, 10 U.S. Sites, 1996-2010: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6022a5.htm>

<sup>3</sup> Centers for Disease Control and Prevention, *Salmonella*: <http://www.cdc.gov/salmonella/general/>

- There are many procedures in place to help protect people from foodborne pathogens. Many of these safeguards are focused on setting standards at meat processing plants.
- Every federally-inspected meat processing facility undergoes a thorough USDA inspection, which includes review of their Hazard Analysis and Critical Control Point (HACCP) system, which is the foundation for safety intervention methods and process controls.
- In addition to the sampling and testing protocols that individual companies have in place, the U.S. Department of Agriculture (USDA) Food Safety Inspection Service (FSIS) also collects random samples of product and submits them to a laboratory for analysis.
- If a product tests positive for a regulated foodborne pathogen, it is important to notify the public and recall those products in order to prevent future illness.

## Consumer Safe Cooking

- Consumers play an important role in food safety by following proper handling, cooking and storage steps.
- Always wash hands, cutting boards, utensils and countertops with hot, soapy water before and after handling meat.
- Don't cross-contaminate – separate raw meat and poultry from other foods and don't place cooked food on a plate that previously contained raw meat or poultry.
- Refrigerate leftovers in shallow containers promptly after eating.
- Use an instant-read thermometer to ensure the proper internal temperature of meat and eliminate any harmful bacteria. Color and juices are not an accurate way to determine doneness.
- All ground meat products should be cooked to an internal temperature of 160 F – as measured with an instant-read meat thermometer – to ensure safety.
- Whole beef cuts (steaks and roasts) that haven't been injected with marinades or mechanically tenderized should be cooked to a minimum internal temperature of 145 F (medium rare) and allow to rest for at least 3 min, for safety and quality.

## Recommended Cooking Temperatures<sup>4</sup>

- Poultry: 165 F
- Ground Beef: 160 F
- Beef Roasts and Steaks: 145 F and allow to rest for at least 3 minutes
- Seafood: 145 F
- Pork: 145 F and allow to rest for at least 3 minutes

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<sup>4</sup>United States Department of Agriculture, Food Safety and Inspection Service: [http://www.fsis.usda.gov/FACTSheets/Keep\\_Food\\_Safe\\_Food\\_Safety\\_Basics/index.asp](http://www.fsis.usda.gov/FACTSheets/Keep_Food_Safe_Food_Safety_Basics/index.asp)