

E. coli O157:H7 Fact Sheet

The beef industry is combating this pathogen.

- No one cares more about the safety of U.S. beef than America's one million cattle producers. Raising safe beef is not only our livelihood, but our heritage and life.
- In a show of unprecedented commitment by the entire industry, the Beef Industry Food Safety Council (BIFSCo) was formed in October 1997 to develop industry-wide, science-based strategies to solve the problem of E. coli O157:H7 and other foodborne pathogens in beef. The Council continues to identify, prioritize, and facilitate research activities from farm to table; develop programs to help industry segments operate in today's business environment; speak with one voice in seeking regulatory and legislative solutions; develop consumer education programs; and develop and implement industry education programs to assist in the transfer of technology into the market place. In short, the focus continues to be on prevention at all stages to significantly reduce and possibly eliminate problems. NCBA's CEO Chuck Schroeder is chairman of the council. More information about BIFSCo is available at www.bifsc.org.
- The beef industry has invested more than \$7 million dollars since 1994 in E. coli O157:H7 food safety applied research. Techniques resulting from this research include vacuuming beef carcasses with steam or hot water, which effectively removes E. coli O157:H7 and other harmful bacteria. "Thermal pasteurization," a rinse cycle for beef carcasses with 180 degree water, and mild organic acid solutions also reduce pathogens.
- More than 80 percent of the research projects producers have funded have directly and immediately led to implementation of procedures that increase beef safety.
- The beef industry created the Blue Ribbon Task Force in 1993 to aggressively address the E. coli O157:H7 problem. Top scientists from the beef industry, academia and government developed a "blue print" of actions, from farm to fork. Some accomplishments thus far include development and implementation of HACCP (Hazard Analysis and Critical Control Points), the steam vacuuming technology and safe handling labels on consumer packaging.
- The Pathogen Reduction/Hazard Analysis Critical Control Points (HACCP) Rule issued in 1996 for meat and poultry requires that all meat and poultry processing plants have HACCP systems in place by January 25, 2000. The HACCP system has been phased in by plant size beginning in 1998. HACCP systems use tools known as Critical Control Points (CCPs) to identify possible food hazards before they occur. CCPs are then monitored and verified to ensure that proper food safety procedures have been carried out. The HACCP system is designed to prevent foodborne hazards from entering the food processing system.
- The beef industry supports new technologies to improve food safety including irradiation (radiation pasteurization), which won FDA approval for red meat in 1997, and was approved by USDA in December of 1999. Using low doses of gamma rays, x-rays and electrons, irradiation has proven effective in destroying food-borne pathogens including E. coli O157:H7. The beef industry also supports research and development of new processing technologies such as steam pasteurization, steam vacuuming, thermal pasteurization and organic acid rinses. Research has documented that 99.5 percent of the bacteria on carcasses is removed or destroyed when multiple microbiological intervention technology is employed during the harvesting process.

The beef industry is educating the consumer.

- NCBA is one of six industry associations participating in the Partnership for Food Safety, which is one of five areas in President Clinton's food safety initiative. The Partnership for Food Safety brings together industry, government and consumer groups whose goal is to develop consistent and memorable messages about the importance of handling food properly. Its "Fight BAC!" consumer education campaign is reaching consumers through a web page (www.fightbac.org), thousands of brochures, and other cooperative activities.
- Consumer surveys have shown that the vast majority of consumers believe the most effective way to reduce the risk of foodborne illness from bacteria in meat is for people at home to take more care to properly prepare and cook meat. In support of this, NCBA also has developed a wide range of consumer food safety education programs, including Keeping Bac Away! safe food handling information, which is reaching parents through 50,000 preschools and childcare centers.
- NCBA participated in the National Food Safety Education Month in September 1999 through the National Restaurant Foundation's International Food Safety Council. Cooking and handling tips appeared in various media outlets including Southern Living.
- NCBA has distributed scientific information on irradiation and pathogens to more than 7,000 media, health professional and industry organizations, where it is being more widely disseminated to consumers through these third party sources.

The beef industry is putting incidence in perspective.

- The E. coli O157:H7 pathogen has triggered foodborne illness outbreaks from consumption of foods as diverse as unpasteurized apple juice, lettuce, alfalfa sprouts, ground beef and strawberries.
- As of August 18, 2000, USDA has tested more than 37,000 random ground beef samples since 1994 and only 95 – less than three-one hundredths of 1 percent -- have been positive for E. coli O157:H7.
- The Centers for Disease Control and Prevention's report on burden of foodborne illness in the U.S., published in September 1999, estimates that E. coli O157:H7 causes 73,480 illnesses per year (62,458 foodborne). The estimate of deaths from E. coli O157:H7 is 61 per year (52 foodborne) -- this is much lower than previous estimates of 250-500 deaths. Considering the volumes of media attention given to E. coli O157:H7, what may be most interesting is that CDC estimates that this known pathogen accounts for just .5% of all foodborne illnesses and 2.9% of all foodborne deaths.
- The number of E. coli O157:H7 infections between 1998 and 1999 dropped by 25 percent, and declined by 22 percent from 1996 to 1999, according to preliminary data released in March 2000 by the CDC program FoodNet (Foodborne Disease Active Surveillance Network).
- While outbreaks attributed to beef grab headlines, perhaps more attention should be given to fruits and vegetables. The CDC report on surveillance for foodborne disease outbreaks, also released in March 2000, showed that the number of cases of foodborne-disease in outbreaks attributed to fruits and vegetables have exceeded those of beef every single year – even by 10-to-1, as in 1995.