Consumer Reports research concludes 'sustainable' ground beef is safer than 'conventional'

By Lisa M. Keefe on 8/24/2015

Consumer Reports will publish an article in its October issue titled, “How Safe is Your Beef,” which concludes that “conventional ground beef is twice as likely to contain superbugs as sustainable beef,” the widely read consumer testing publication said, in a news release sent to **Meatingplace** last week but embargoed until this morning.

The issue will be available to readers on September 3. For the article, researchers sampled 300 packages of ground beef bought from retailers for the presence of bacteria and analyzed them for antimicrobial resistance.

To meat industry researchers, the data reported in the article paints a very different picture, underscoring the overall safety of ground beef in general and sounding an “alarmist” note using unspecific information in some respects.

The article

The research was conducted by the publication’s its advocacy arm, the Consumers Union, and funded by the Pew Charitable Trusts. The article promises to tell consumers what they can “do to make better beef choices and to lower their risk of getting sick” and “what the government can do to help improve the way beef is labeled, processed and inspected.”

To do the research, *Consumer Reports* bought packages — 458 pounds — of “conventionally” and “sustainably” produced ground beef from a variety of food retailers in 26 cities across the country.

According to an explanation of the methodology used in the research — provided to **Meatingplace** not by *Consumer Reports* but by a third party, and available in its entirety here — the researchers categorized the ground beef as “conventional” if the packages did not include “sustainable production label claims,” and as “more sustainably produced” if the samples included claims of no antibiotics, were certified Organic, and/or were grass-fed.

The samples were tested for *C. perfringens*; E. coli, including O157:H7 and six non-O157:H7 STECs; *Enterococcus* species; *Salmonella* species; and *Staphylococcus aureus.* The methods used for testing were “based on the U.S. Food and Drug Administration’s National Antimicrobial Resistance

Monitoring System (NARMS) and Bacteriological Analytical Manual," the methodology explanation notes. Screening was done using real-time polymerase chain reaction (PCR) and other methods.

In testing for antibiotic resistance, the researchers used panels of drugs in classes that the World Health Organization considers "important to human medicine."

According to *Consumer Reports*' release, "18 percent of the beef samples from conventionally raised cows *(sic)* contained dangerous superbugs resistant to three or more classes of antibiotics used to treat illness in humans compared with just 9 percent of beef from samples that were sustainably produced.

"This testing, which is among the largest conducted to date, found bacteria on all of the beef samples. However, ground beef from cows *(sic)* raised more sustainably was significantly less likely to have two potentially harmful bacteria (*S.aureus* and *E. coli*) than those from cows *(sic)* raised conventionally.

"Among the best options to choose are beef products labeled 'grass-fed organic,' which ensures the cattle have not been fed grain and eat only organically grown grass and forage and have not received any antibiotics or hormones," the news release said.

Industry response

The North American Meat Institute said, in response to the study's findings, that the research in fact "confirms strong safety of ground beef," noting that the results did not report findings of highly pathogenic E. coli or Salmonella.

"A review of *Consumer Reports*' new study on the safety of ground beef in the U.S. confirms that pathogenic bacteria is rarely found in meat," the organization said in a release. "The bacteria identified in the *Consumer Reports* testing are types that rarely cause foodborne illness. Bacteria such as *Staphylococcus aureus*, *Enterococcus* and generic E. coli are commonly found in the environment and are not considered pathogenic bacteria.

"The real headline here is the bacteria that *Consumer Reports* doesn't report finding in their testing — Shiga toxin-producing E. coli and Salmonella — which are the foodborne bacteria of greatest public health concern in beef," said North American Meat Institute Vice President of Scientific Affairs Betsy Booren, in NAMI's statement.

"Bacteria occur naturally on all raw food product ... so finding certain types on some foods in a grocery store is not surprising and not should it be concerning. As an industry, [we focus] attention on bacteria which are most

likely to make people sick, particularly Shiga toxin-producing E. coli and Salmonella. It is telling that *Consumer Reports* did not highlight finding these bacteria on products they tested, which is a strong indication of the overall safety of beef."

But, "claims about antibiotic resistance and its prevalence in products from different production methods is far less clear. Antibiotic resistance is common in nature [and] its presence in bacteria is expected. What is most important to know is whether certain pathogenic bacteria are resistant to certain types of antibiotics, but *Consumer Reports* has not specified this information in the materials shared with the industry."

The National Cattlemen's Beef Association likewise saw a different picture. "I have relied on *Consumer Reports* when purchasing cars and electronics but unfortunately this report will not help consumers when purchasing safe ground beef," said Mandy Carr Johnson, senior executive director, Science and Product Solutions, for NCBA. "The bacteria found in the *Consumer Reports* tests are not the type of bacteria commonly associated with foodborne illness in ground beef."

Furthermore, NAMI noted, the FDA has said it is "inaccurate and alarmist" to define bacteria resistant to one, or even a few, antimicrobials as "superbugs" if these same bacteria are still treatable by other commonly used antibiotics.

Just cook it

Ultimately, *Consumer Reports* noted, "No matter what ground beef consumers buy, cooking it to 160 degrees Fahrenheit should kill harmful bacteria. Meat should be stored properly before and *after* cooking since bacteria can multiply rapidly at temperatures above 40 degrees. If you're reheating leftover burgers or a casserole with ground beef, get it to 165 degrees."

It's a recommendation that NAMI applauded, adding that it has several resources on ground beef handling and safety, including a video on how ground beef is made, and its Meat Mythcrushers series covers the safety of grass-fed v. grain-fed beef and the "myth that superbugs are common on meat and poultry products."

Said NCBA's Carr: "The only helpful takeaway from the report for consumers is that all ground beef should be cooked to and internal temperature of 160 degrees Fahrenheit and confirmed with an instant-read meat thermometer, as recommended by the U.S. Department of Agriculture."

Recommended action

Consumer Reports uses the article to urge the federal government to "take action to help protect public health," including:

- Ban the use of daily antibiotics in healthy animals
- Ensure that meaningful labels are not undermined by labels like "natural" which have nothing to do with how animals are raised, what they ate or if they were confined.
- Adopt recommendations to expand animal welfare standards for organic beef.
- Beef up inspections, including having an inspector at every slaughter and processing plant.
- Ban the sale of beef containing disease-causing, antibiotic-resistant Salmonella and prohibit chicken waste in cattle feed.

To read the *Consumer Reports* article, click here and for a more detailed scientific report, click here.