

THE U.S. MEAT AND POULTRY INSPECTION SYSTEM: AN OVERVIEW OF HACCP

Background

From 1906 through the present, the meat and poultry industry has become one of the most heavily regulated industries in the United States. The U.S. inspection system has enhanced industry efforts to create the safest meat and poultry food supply in the world. Under the Federal Meat Inspection Act, FMIA (21 U.S.C. 601 *et seq.*), and the Poultry Products Inspection Act (21 U.S.C. 451 *et seq.*), the United States Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) administers regulations governing the production of meat and poultry products prepared for distribution in commerce. FSIS and its nearly 8,000 inspection program personnel inspect about 6,500 establishments producing meat, poultry and egg products. Inspectors check animals before and after slaughter, visually and physically examining more than 5 billion poultry carcasses and more than 100 million livestock carcasses each year.

Federal inspectors also monitor during processing, handling, and packaging to ensure products are safe and accurately labeled. Federal inspectors have the authority to shut plants down for food safety violations, by withholding the federal inspection mark on products. Companies under federal inspection apply the USDA mark to all products. The mark contains an establishment number, which indicates the facility that produced the product. The presence of the mark indicates the product was produced in compliance with one of the most comprehensive set of regulations applied to an industry.

At the close of the twentieth century, the American Meat Institute, The North American Meat Institute's predecessor, the National Academy of Science, the Government Accounting Office, and the National Advisory Committee on Microbiological Criteria for Foods called for changes in the existing inspection system to better address microbial pathogens. A major shift in the approach to

meat and poultry inspection began in 1996, with the issuance of the Pathogen Reduction and Hazard Analysis and Critical Control Point (PR/HACCP) Rule, requiring all meat and poultry plants to adopt HACCP plans.

HACCP

HACCP is a strategy of preventing problems before they occur rather than detecting them after a product is made. The concept of HACCP was developed and implemented by Pillsbury to make safe food for astronauts. The first part of HACCP is the hazard analysis, where each plant analyzes the processes used to make each type of product and identify where significant hazards may be reasonably likely to occur. Food safety resources are then concentrated at these points.

Once a significant hazard is identified as reasonably likely to occur, the plant decides how to control the hazard. A critical control point, or CCP, is a step in the process at which control can be applied and is essential to prevent, reduce, or eliminate a food safety hazard. When suitable, establishments use a variety of strategies at CCPs. Many processors use steam, hot water, and other washes to reduce microbial hazards on the external surfaces of meat and poultry carcasses. Other plants use hand-held steam vacuums to clean carcasses. Controls may include using food-grade additives that kill or reduce the growth of potential microbial hazards, infrared heat tunnels to pasteurize product surfaces, and high-pressure systems to kill bacteria. Microbiological tests conducted at meat plants on equipment or products include tests for *E. coli*, *Listeria*, and *Salmonella*. These tests are conducted by companies or federal laboratories to verify the food safety systems are working properly.

Federal inspectors verify a plant is following its HACCP plan and that the products meet federal standards.

Summary

The HACCP approach provides a science-based approach to controlling potential food safety hazards, whether physical, chemical, or biological.

And this system, coupled with the industry's commitment to producing the safest food possible, means that the U.S. meat and poultry supply is among the safest in the world.

Helpful Links

North American Meat Institute
<http://www.meatinstitute.org>

Third-party Experts

Dennis E. Burson
Professor, Animal Science
University of Nebraska, Lincoln
dburson1@unl.edu
(402) 472-6457