

National Advisory Committee on Meat and Poultry Inspection

Increasing Industry Awareness About New Technology Staff Cooperative Agreements

Purpose

This briefing paper provides an update on New Technology Staff Cooperative Agreements.

Discussion

The FSIS New Technology Staff (NTS) receives information on many promising new technologies designed to improve the safety of meat, poultry and egg products. Many of these new technologies have resulted in significant improvements in the safety of meat, poultry and egg products in recent years. FSIS would like to see these advances continue.

The development of new technologies, much like new pharmaceuticals, usually requires large amounts of capital. The implementation of new technologies often requires extensive infrastructure. Many small and very small establishments do not have the resources or infrastructure to develop, purchase or implement many of the emerging new technologies.

Each year since 2003, FSIS has formed cooperative agreements with state, academic and research institutions to identify, develop and validate new technologies for small and very small establishments to help them improve their ability to meet food safety requirements. Cooperators have been asked, for example, to help determine which technologies are economically feasible for small and very small establishments. We hope this information will foster adoption of new technologies.

NTS has begun posting the results of these cooperative agreements on the FSIS website as they are finalized. The 2003 cooperative agreements produced three reports that small and very small establishments can access and use. These include a carcass sanitizing spray system for beef and swine carcasses; post-processing pasteurization of beef snack sticks and natural casings for wieners to control *Listeria monocytogenes*; and interventions for beef trim to be used in ground beef products.

Many 2004 cooperative agreement proposals were selected because of several recent incidents involving *Listeria* and *Escherichia coli* O157:H7 contamination of beef jerky products. Although the 2004 cooperative agreements have not been completed at this time, preliminary reports look very promising.

On April 20, 2005, FSIS published a Federal Register Notice soliciting proposals for cooperative agreements for new technologies that will permit small and very small meat, poultry, and egg product establishments to produce safer products. The Agency identified priority topics for interested parties applying for agreements, including:

- Antimicrobial or other kinds of interventions to reduce or eliminate *Escherichia coli* O157:H7 in ground meat products.
- *Listeria monocytogenes* post-lethality treatments for ready-to-eat products.
- The relationship between the level of *Salmonella* Enteritidis in eggs and egg products and the molting of poultry.
- The relationship between the level of *Salmonella* Enteritidis and the temperature at which eggs have been held from the day of lay until the day of processing.
- *Salmonella* growth and reduction in shelf-stable ready-to-eat products.
- Cost-effective mechanisms to determine the temperature of products while they are being shipped.
- Allergens, food sensitivities, and intolerances in meat and poultry products and development of a training program for small and very small establishments to help with the reassessment of their HACCP programs as they pertain to any ingredient that may be an allergen.
- Inoculation challenge studies on non-thermally processed ready-to-eat products; e.g., validation studies for dry cured chorizo, basturma, prosciutto ham, and pancetta.
- The amount of pathogen growth, such as *Escherichia coli* O157:H7 and *Salmonella* on livestock carcasses during the cooling process, and the development of easily understood predictive microbial models.
- The minimum chamber relative humidity needed to ensure that the moisture level on the product surface is adequate to achieve the desired lethality without increasing the heat resistance of bacterial pathogens, e.g. *Salmonella* spp.
- Alternative methods, such as antimicrobial packaging, to achieve surface lethality for products that had been exposed to the environment after lethality treatment.

Questions

1. What are the best ways to get the information derived from cooperative agreements to small and very small establishments?
2. How does FSIS effectively present scientific information to small and very small businesses?
3. How does FSIS reach the small and very small establishments that do not belong to a trade organization?

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http://www.fsis.usda.gov/Regulations_&_Policies/New_Technology_Agreements_FY2003/index.asp