

Food Safety Best Practices for the Turkey Industry

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FSIS Post-Harvest Salmonella Control Conference: Feb 2006 Atlanta, GA



National Turkey Federation

- The National Turkey Federation is a national trade association based in Washington, DC.
- It is the only trade association representing the turkey industry and its allied industries, exclusively.
- NTF's mission is to provide representation and support at the national level so that the industry can effectively and profitably provide wholesome, high quality and nutritious turkey products

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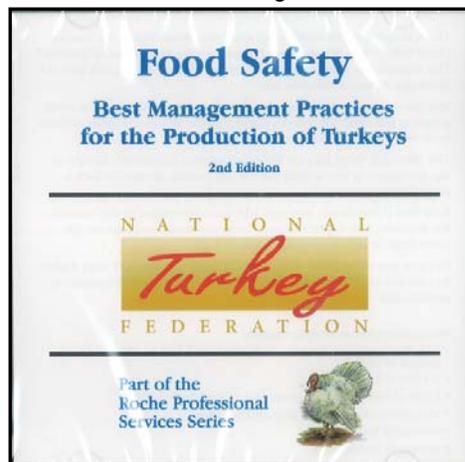
National Turkey Federation

Food Safety is a high priority

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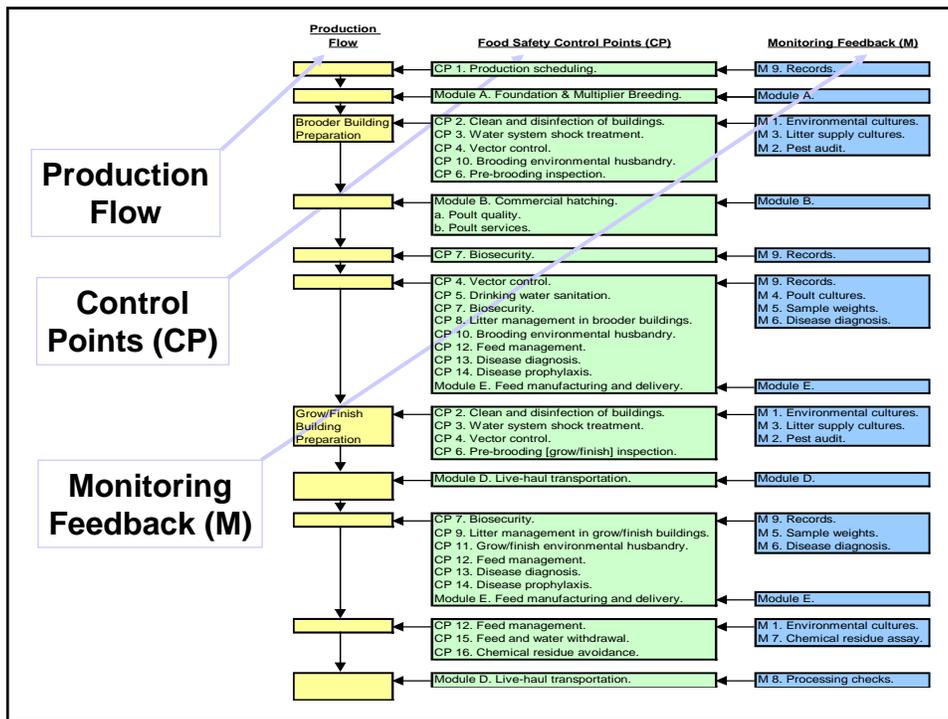
Food Safety: Production BMPs



- In 2nd edition
 - Updated 2000
- Live Production
 - Foundation & Multiplier Breeding
 - Commercial Hatching
 - Meat Bird Production Grow-out
 - Live Haul
 - Feed Manufacturing & Delivery

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Ground Turkey GMPs

- Developed by the NTF T&R Committee
 - Receiving
 - Storage
 - Tempering
 - Grinding
 - Packaging
 - Finished Product Storage
 - Distribution

Good Manufacturing Practices for the Production of Ground Turkey

The starting material for poultry products begins on the farm and the delivery of a live bird to the processing facility. It is a well recognized fact that live animals have certain bacteria present. This bacteria includes pathogenic bacteria that can be found on the skin, in the intestinal tract, feathers, etc. It is only natural to assume that unless a kill step, such as thermal processing or irradiation, is a part of the production process, pathogenic bacteria will be a part of the finished product. This fact is not species specific and occurs in cows, pigs, chickens and turkeys. Proper handling and cooking of the raw product by the consumer prior to consumption will serve to eliminate the pathogenic bacteria. Unfortunately, consumer attitude differ greatly. This is more of an obstacle in ground beef production. Consumer may sacrifice appropriate cooking temperature to destroy pathogenic bacteria for the taste and appearance of the consumer product. However, ground turkey products differ from ground beef in that consumers preference for appearance and taste results in appropriate cooking temperatures for pathogenic bacteria destruction. Foodborne illness from poultry products is usually the result of cross contamination due to mishandling by the preparer of the food and not from an inappropriate cooking temperature.

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Chiller BMPs

NTF Chiller BMP

NTF Immersion Chiller Best Management Practices (BMP):

Optimization of Microbial Intervention Strategies

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Overview:

This document will present summary observations and recommendations from a multi-state survey of commercial turkey processing that was recently completed by our laboratories. The main objective of the investigation, which sampled processing facilities in six geographically distinct states within the US, was to assess the contribution of management of immersion chilling systems in reducing levels of *Salmonella* and *Campylobacter* on processed, post-chill carcasses. Phase I of the study consisted of a preliminary survey of 5 plants between February and June of 2000 and

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Chiller BMPs: *Objective*

- Assess immersion chilling management strategies and their effects on the microbiological quality of carcasses in commercial turkey slaughter facilities
- Develop chiller best management practices that contribute to controlling and/or reducing the incidence of *Salmonella* and *Campylobacter* on post-chilled turkey carcasses

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Chiller BMPs: *Conclusions*

- Maintain total chlorine at 15-25 ppm
- Type of chlorination does not matter
- pH does matter

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Chiller BMPs: *Take Home Message*

Properly managed immersion chilling systems are effective as part of an overall pathogen control program

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NTF Process Control Mapping

- Monitor various sites throughout slaughter process
 - Before scalding
 - After scalding
 - After picker/s
 - At rehang
 - Pre-cropper
 - Post-prechill rinse/AMT application
 - Postchill

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NTF Process Control Mapping

- Collect wing samples
 - Pool five samples per site
- Samples collected and analyzed for:
 - *Salmonella* sp. (qualitative)
 - generic *E. coli* (quantitative)
 - APC (quantitative)

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NTF Process Control Mapping

- Pilot Status Right Now!
 - Conduct for 30-d in volunteer plants
 - Reassess sampling sites and methods
 - Determine most appropriate points for further evaluation

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NTF Process Control Mapping

- After pilot is complete
 - Present to entire turkey industry
 - Launch industry wide
 - Collect data routinely, as determined by the NTF Micro Working Group
- Data is to be used to build on the NTF Best Management Practices

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Closing

- Process control mapping study is in its infancy
 - Goal is to build onto the existing food safety best management practices, using sound science
- Food safety requires the hurdle approach

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Thank You!



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