
INVESTIGATION OF A *SALMONELLA* HEIDELBERG OUTBREAK IN 2013 AND 2014 ASSOCIATED WITH FOSTER FARMS CHICKEN

Final Report

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AGENCIES

California Department of Public Health (CDPH), Food and Drug Branch (FDB), Emergency Response Unit (ERU)

CDPH Food and Drug Laboratory Branch (FDLB)

CDPH Division of Communicable Disease Control (DCDC), Infectious Disease Branch (IDB)

United States Centers for Disease Control (CDC)

United States Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS)

San Mateo County Health System, Environmental Health Services Division (SMEHS)

DATES OF INVESTIGATION

August 2, 2013 – May 27, 2014

EXECUTIVE SUMMARY

In March 2013, the California Department of Public Health (CDPH), Food and Drug Branch (FDB) was notified by the CDPH Infectious Diseases Branch (IDB) about a small cluster of *Salmonella* Heidelberg illnesses predominately affecting California residents. The majority of the cases reported consuming chicken products, with a significant portion reporting Foster Farms chicken. The cluster of illnesses was assigned CDC cluster code 1306MLJF6-1 and eventually included the following seven Pulsed-Field Gel Electrophoresis (PFGE) patterns: JF6X01.0258, JF6X01.0045, JF6X01.0041, JF6X01.0122, JF6X01.0326, JF6X01.0672, and JF6X01.0022. As of 5/22/2014, the outbreak affected 574 case patients from 27 states and Puerto Rico. Thirty-seven (37) percent of these case patients were hospitalized. No deaths were reported. Seventy-seven (77) percent of the case patients were from California. Three United States Department of Agriculture (USDA) regulated and inspected Foster Farms plants (USDA plant identification numbers P-6137, P-6137A, and P-7632) were epidemiologically linked to the outbreak. FDB began assisting USDA with the investigation in August 2013.

FDB collected multiple chicken samples from six case patients in California. These samples were generally collected frozen from case patients' homes or from a County Health Department Laboratory. Some of the products had been consumed by the case patients prior to illness, while other samples were sealed retail samples. The types of samples included retail packaged chicken, chicken samples re-packaged by consumers, and Costco brand rotisserie chicken that was sourced from Foster Farms. The following samples tested positive for *Salmonella*:

Sample Number	Description	Foster Farms Plant Identification Number	Testing Results
710100113-001	Left-over, cooked Costco rotisserie chicken – partially consumed by a case patient – purchased at 1600 El Camino Real, SSF	Unknown – four possible plants (6137, 6137A, 7632, and 33900)	<i>Salmonella</i> Heidelberg JF6X01.0258
524100313-001	Left-over, cooked Costco rotisserie chicken – partially consumed by a case patient – purchased at 1600 El Camino Real, SSF	Unknown – four possible plants (6137, 6137A, 7632, and 33900)	<i>Salmonella</i> Heidelberg JF6X01.0258
184100913-P002	Kirkland Signature Boneless Skinless Chicken Tenderloin 96 ounce bag – opened by consumer	6137A	<i>Salmonella</i> Heidelberg JF6X01.0122

The positive cooked rotisserie chicken samples resulted in Costco recalling all rotisserie chicken and products manufactured from rotisserie chicken between 9/11/2013 and 9/23/2013. The positive finding in the open Kirkland Signature Boneless Skinless Chicken Tenderloin was reported to USDA, as it was an uncooked meat product under the regulatory jurisdiction of the USDA.

The positive findings in Costco rotisserie chicken, along with a sub-cluster of *Salmonella* Heidelberg illness epidemiologically linked to rotisserie chicken from Costco in San Mateo County resulted in FDB completing an environmental investigation at the implicated Costco location. FDB collected environmental swabs, cooked chicken samples from the retail counter, and raw chicken sourced from Foster Farms Plant #6137. Although all Costco environmental swabs were negative, a single cooked chicken sample and a single raw chicken sample tested positive for *Salmonella*:

Sample Number	Description	Foster Farms Plant Identification Number	Testing Results
710100713-P003	Costco whole roasted chicken – cooked on 10/07/2013	6137	<i>Salmonella</i> Heidelberg JF6X01.0258
710100713-P005	Foster Farms sourced whole raw chicken – collected from the refrigeration unit at Costco	6137	<i>Salmonella</i> Kentucky JGPX01.0027

The positive cooked rotisserie chicken sample, collected at Costco, resulted in Costco expanding the recall of rotisserie chicken and products manufactured from rotisserie chicken through 10/16/2013. The positive finding in the Foster Farms raw whole chicken was reported to USDA.

Observations made during the sub-cluster investigation at Costco indicated that cross-contamination after cooking likely contaminated the packaged chicken. The chicken had been cooked to an internal temperature of 180 deg. F for a minimum of 80 minutes before being transferred to the packaging table and *Salmonella* was only isolated from the exterior portion of the chicken. All samples of meat collected from internal portions of the chicken tested negative for *Salmonella*.

Evidence collected during this outbreak investigation indicated that Foster Farms chicken from multiple Foster Farms processing locations contained multiple strains of *Salmonella* Heidelberg. Considering chicken is a raw animal protein, it is not uncommon that *Salmonella* may be present. Illnesses associated with Foster Farms Fresh packaged chicken products were likely caused by cross-contamination or undercooking at home.

BACKGROUND

In March 2013, a multi-state foodborne outbreak of *Salmonella* Heidelberg (CDC cluster code 1306MLJF6-1) was epidemiologically linked to chicken processed at three California Foster Farms plants (USDA plant identification numbers P-6137, P-6137A, and P-7632). Multiple strains of *Salmonella* Heidelberg identified in the outbreak were found to be resistant to several commonly prescribed antibiotics. Although these antibiotics were not typically used to treat *Salmonella* infections, the fact that they may be resistant to multiple antibiotics increased the public health significance of the investigation. Additionally, from March to July 2013, the National Antibiotic Resistance Monitoring Program (NARMS) isolated four of the seven outbreak strains from five retail samples of Foster Farms chicken breasts and wings collected in California. Four of these isolates exhibited drug resistance to one or more commonly prescribed antibiotics (two of which were multidrug resistant). USDA initiated an investigation regarding this outbreak with FDB assisting by collecting consumer samples and investigating a sub-cluster of illnesses in San Mateo County.

REGULATORY ACTIONS AND PUBLIC NOTIFICATIONS

On 10/7/2013, USDA initiated a Notice of Intended Enforcement against Foster Farms and issued a Public Health Alert that detailed the investigation to date and offered consumer advice regarding proper cooking and handling of raw poultry (Attachment A).

On 10/8/2013 and throughout the investigation, CDC updated their website with a web page dedicated to the investigation at the national level (Attachment B).

On 10/9/2013, Consumer Reports (an independent consumer advocacy group) released their findings of a multidrug resistant strain of *Salmonella* Heidelberg collected in July 2013 from a Foster Farms chicken sample collected at a retail location. This sample originated from plant P-6137A and matched one of the outbreak strains (Attachment C).

On 10/9/2013, CDPH issued a press release reminding consumers of proper handling and cooking procedures for raw chicken (Attachment D).

OUTBREAK SUMMARY

OVERALL NATIONWIDE OUTBREAK

This *Salmonella* outbreak was assigned CDC cluster code 1306MLJF6-1 with the following seven PFGE patterns: JF6X01.0258, JF6X01.0045, JF6X01.0041, JF6X01.0122, JF6X01.0326, JF6X01.0672, and JF6X01.0022. As of 5/22/2014, the outbreak affected 574 case patients from 27 states and Puerto Rico. Thirty-seven (37) percent of these case patients were hospitalized. No deaths were reported. Seventy-seven (77) percent of the case patients were from California. The patient interviews indicated that 86 percent of the cases indicated eating chicken prepared at home and the most commonly reported brand was Foster Farms. FDB began assisting with the USDA led investigation in August 2013.

USDA's investigation of the California Foster Farms processing plants identified *Salmonella* species in packaged chicken products with matching PFGE patterns to the outbreak case patients. In early September 2013, USDA began a focused sampling program at four Foster Farms chicken processing plants in California and Washington. The sampling took place at Foster Farms plants in [REDACTED], CA (#6137), [REDACTED], CA (#6137A), [REDACTED], CA (#7632), and a single plant in WA. USDA collected 50 product samples from each plant for three weeks (total of 600 samples). Samples consisted of retail packaged chicken (tenders, half breast, thighs, drumsticks, rotisserie, whole chicken, and young chicken) collected after packaging, immediately before being shipped to customers. The following results were reported after the first two days of sampling on 9/9/2013 and 9/10/2013:

- **Washington** – *Salmonella* Heidelberg was not isolated in any samples
- **California** - 16 samples tested positive for *Salmonella* resulting in 43 isolates
 - Multiple product samples matched multiple outbreak patterns.
 - Four outbreak strains were identified in the following California plants:
 - Foster Farms, [REDACTED] #6137 – patterns isolated included JF6X01.0022, JF6X01.0041, and JF6X01.0045

- Foster Farms, █████ #6137A – patterns isolated included JF6X01.0258 and JF6X01.0045
- Foster Farms, █████ #7632 – patterns isolated included JF6X01.0022 and JF6X01.0045

USDA provided these results to Foster Farms for review. Foster Farms indicated that a corrective action plan would be implemented at the affected plants.

COLLECTION OF SAMPLES FROM CASE PATIENTS

CASE PATIENT IN AMERICAN CANYON, CA

On 8/30/2013, FDB was notified by IDB of a case patient associated with this outbreak (CDC ID CA_M13X03917) who had product available in their freezer for testing. On 8/30/2013, FDB staff collected one partial package of Foster Farms Half Chicken Breasts (IS# 710083013-001). This package was purchased at a Safeway on American Canyon Road in American Canyon, CA. The portion of the packaging material that contained the USDA plant # was missing. The consumer had also served chicken purchased at Costco in Vallejo, CA at the same event during which the patient may have been exposed, however there was none available at the time of sampling. On 9/9/2013, FDB was notified by the Food and Drug Laboratory Branch (FDLB) that this sample was negative for *Salmonella*. See Attachment E.

CASE PATIENT IN HAYWARD, CA

On 8/7/2013, FDB was notified by IDB of a case patient associated with this outbreak (CDC ID CA_M13X03350) who had product available in their freezer for testing. On 8/9/2013, FDB staff collected samples of the leftover chicken. The samples collected included:

- One partial package of Foster Farms brand frozen chicken breasts with the Establishment number P6137A (IS# 710080813-001).
- One partial package of Foster Farms brand frozen chicken drumsticks with the Establishment number P7632 and a Use by Date of 4/21/2013 (IS# 710080813-002).
- One pre-cooked, packaged frozen chicken sandwich (IS# 710080813-003)
- Ten Yummy Dino Buddies Chicken Breast Nuggets (product of Canada), Best if Used by 7/1/2015 (IS# 710080813-004)

All samples collected were reportedly purchased at a Costco in Vallejo, CA. Samples 001, 002, and 004 were submitted to FDLB for analysis. Sample 003 was not submitted because it was a fully cooked product. On 8/15/2013, FDB was notified by FDLB that all of the samples submitted from this patient were negative for *Salmonella*. See Attachment F.

CASE PATIENT IN SAN FRANCISCO

On 10/9/2013, FDB was notified by IDB of a case patient associated with this outbreak who had product available in the freezer for testing. On 10/10/2013, FDB staff collected three samples of Foster Farms chicken products (IS# 524101013-001, 002, and 003). Samples 001 and 002 were purchased at Costco located at 1600 El Camino Real in South San Francisco and were marked with Establishment numbers 6137 and 6137A. Sample 003 was purchased from a Smart and Final retail location on 7th Avenue in San Francisco, CA. Sample 003 contained frozen chicken breasts in a consumer packaged plastic bag with no labeling. On 10/18/2013, FDB was notified by FDLB that all three samples were negative for *Salmonella*. This case patient was later excluded from the outbreak because the *Salmonella* isolated from the patient's clinical sample did not match the outbreak PFGE patterns. See Attachment G.

CASE PATIENTS IN SAN MATEO COUNTY

On 9/30/2013, FDB was notified by the San Mateo Public Health Laboratory of a sample of rotisserie chicken that had been purchased from Costco at 1600 El Camino Real in South San Francisco. This rotisserie chicken sample was collected from a case patient associated with the San Mateo sub-cluster of this outbreak (CDC ID CA_M13X04845). On 10/3/2013, FDB staff collected the

frozen sample from the San Mateo County Public Health Laboratory (IS# 524100313-001) and delivered it to FDLB for analysis. On 10/11/2013, FDB was notified by FDLB that this sample was positive for *Salmonella* Heidelberg, and had a PFGE pattern matching the San Mateo County sub-cluster (pattern JF6X01.0258). See Attachment H for the Collection Report. See Exhibit A for analytical results.

On 10/1/2013, FDB was notified by the San Mateo Public Health Laboratory of a sample of rotisserie chicken purchased from Costco at 1600 El Camino Real in South San Francisco. This rotisserie chicken sample was collected from a case patient associated with the San Mateo sub-cluster of this outbreak (CDC ID CA_M13X04800). On 10/1/2013, FDB staff collected the frozen sample from the San Mateo County Public Health Laboratory (IS# 710100113-001) and delivered it to FDLB for analysis. On 10/8/2013, FDB was notified by FDLB that this sample was positive for *Salmonella* Heidelberg, and had a PFGE pattern matching the San Mateo sub-cluster (pattern JF6X01.0258). See Attachment I for the Collection Report. See Exhibit A for positive testing results.

CASE PATIENT IN SAN JOSE

On 10/8/2013 FDB was notified by IDB of a case patient associated with this outbreak (CASC_13SCPH16183) with product available in the freezer for testing. On 10/9/2013, FDB staff collected three samples of Kirkland Signature Boneless, Skinless Chicken Breasts (IS# 184100913-P001, P002, and P003). A sample of pre-cooked chicken patties was also collected, but not tested because it was a fully-cooked product (P004). Samples P001 and P003 had the USDA Establishment number P33901, while sample P002 had the USDA Establishment number P6137A. On 10/15/2013 FDB was notified by FDLB that samples 001 and 003 were negative for *Salmonella* and sample 002 was positive for *Salmonella* Heidelberg and matched one of the outbreak patterns (JF6X01.0122). See Attachment J for the Collection Report. See Exhibit A for positive testing results.

TRACEBACK OF POSITIVE CONSUMER SAMPLES

A traceback investigation was conducted for two California case patients (CA_M13X04800 and CA_M13X04845). These cases were selected because they had provided the only two positive cooked rotisserie chicken samples obtained from consumers and both cases had excellent recall of their food consumption histories. These cases were both part of the San Mateo County sub-cluster that had purchased cooked rotisserie chicken from the South San Francisco Costco location. In addition to the chicken that these cases had reportedly consumed, FDB completed traceback on the cooked rotisserie chicken that tested positive for *Salmonella* matching the outbreak strain which had been collected at Costco by FDB during the environmental investigation on 10/7/2013. As the attached diagram (Exhibit B) indicates, all chicken products were distributed through the Foster Farms Distribution Center in Livingston, CA. That distribution center received the implicated shipments of interest from four plants: Foster Farms in [REDACTED] (P-33900); [REDACTED] DBA: Foster Farms, [REDACTED], CA (P-7632); Foster Farms in [REDACTED] CA (P-6137A); and Foster Farms in [REDACTED] CA (P-6137). When traced back to the farm level, convergence could not be identified. The farms that individual chickens were sourced from on each day of processing and packaging could not be determined due to a lack of documentation and tracking by Foster Farms. The locations and other information about these farms was requested from Foster Farms, but was not provided.

ENVIRONMENTAL INVESTIGATION AT COSTCO, SOUTH SAN FRANCISCO

FDB investigated a sub-cluster of illnesses affecting 25 individuals in San Mateo and San Francisco Counties. These illnesses were epidemiologically linked to a single Costco store located at 1600 El Camino Real in South San Francisco beginning in late September 2013. This cluster had a single *Salmonella* Heidelberg strain that was also associated with the larger nationwide outbreak (pattern JF6X01.0258). Illness onset dates ranged from 9/6/2013 to 9/25/2013. The information obtained by San Mateo County Health System, Environmental Health Services Division (SMEHS) and by IDB indicated a strong association between these illnesses and the consumption of cooked rotisserie chicken from a Costco located at 1600 El Camino Real in South San Francisco. The rotisserie chickens cooked by Costco were sourced from four Foster Farms processing plants (USDA Establishment numbers 33900, 7632, 6137, and 6137A), three of which were implicated in the larger outbreak. See Attachment K for the complete sub-cluster environmental investigation report.

On 9/26/2013, SMEHS initiated an inspection at Costco on 1600 El Camino Real in South San Francisco, CA as a result of the sub-cluster under investigation by IDB. The SMEHS inspection and notification regarding case patients associated with the consumption of rotisserie chicken resulted in Costco voluntarily suspending chicken roasting operations at their facility on 9/27/2013. During the suspension, all staff was retrained on proper sanitation and cross-contamination prevention. Also, employees washed, rinsed, and sanitized all areas related to rotisserie chicken operations. On 9/28/2013, SMEHS observed the firm restarting operations after retraining and sanitizing. It was observed that the lab coats worn by the employees had sleeves that could become contaminated during the processing of raw product. These lab coats were not removed before handling the cooked product which could lead to cross-contamination of cooked rotisserie chicken. Also, it was observed that the employees loading raw chickens into the oven failed to sanitize the touch pads and oven handles after loading raw chicken. The firm suspended operations in the rotisserie chicken area again, on 9/30/2013, due to a pre-scheduled floor resurfacing. During the suspended operations, staff was again retrained on sanitation and cross-contamination prevention.

As a result of the multiple matching clinical samples (JF6X01.0258), the SMEHS inspection results, and the strong relationship between case patients and the El Camino Real Costco location, FDB investigational staff and SMEHS conducted an environmental investigation at the facility on 10/7/2013 focusing on areas of potential cross-contamination. During the investigation, observations centered on Costco's process of removing cooked chickens from the rotisserie oven and placing in packages. The areas of concern included the possibility of cross-contamination due to incomplete sanitation of the control panel buttons used to increase cook time and advance the skewer system (buttons were manipulated by employees between raw and cooked chickens); the movement of employees through doors throughout the operation and the possibility of cross-contamination from surfaces touched; the splashing of water onto packaging material stored on a low shelf due to hosing off of the floor between loading raw chickens into the oven and removing the cooked chickens; and the storage of aprons, worn when handling cooked and raw product, on the same hooks.

SAMPLES COLLECTED

ENVIRONMENTAL SAMPLES

As part of the environmental investigation at Costco on 10/7/2013, 35 environmental swab samples were collected from zones one, two, and three. During the investigation, Costco representatives collected duplicate samples for the testing of *Salmonella* and submitted them to a third-party laboratory. FDB samples were submitted to FDLB on 10/8/2013. All environmental samples collected by FDB as well as duplicate samples collected by Costco were negative for *Salmonella*.

PRODUCT SAMPLES

In addition to the aforementioned environmental samples, seven product samples were collected. This included four cooked rotisserie chickens produced on the day of the investigation (IS# 710100713-P001-P004) and three raw, uncooked chickens from the refrigerated storage area (IS# 710100713-P005-P007). The cooked chicken samples and raw chicken samples were all determined to have been sourced from Foster Farms Plant #6137. All samples were submitted to FDLB for testing. On 10/15/2013, FDLB reported that sample P003 (cooked chicken available for retail purchase) was positive for *Salmonella*. FDLB reported that sub-samples of the cooked chicken were selected from the outer portion of the chicken and continued to the inner portion of the chicken closest to the bone. The only sample that tested positive for *Salmonella* was the outermost portion of the single chicken. The isolate from the exterior portion of the cooked chicken had a PFGE pattern of JF6X01.0258, which matched the outbreak strain. On 10/21/2013, FDLB reported that sample P005 (raw chicken) was positive for *Salmonella* Kentucky, which did not match any of the outbreak strains. See Exhibit A.

CORRECTIVE ACTIONS

On 10/17/2013, FDB, along with SMEHS and USDA representatives, returned to the Costco location to observe the results of Costco's new procedures and retraining. FDB staff noted that Costco was no longer using a hose to rinse and sanitize the floor between raw chicken and cooked chicken in the rotisserie area. Instead they were using a bucket with sanitizer to wet the floor and squeegee into a floor drain. This procedure was already in the Costco Standard Operating Procedures (SOPs) for all stores with rotisserie ovens; however this store had previously deviated from their SOPs by using a pressurized hose. Additionally, it was noted that the

firm had moved packaging material for cooked rotisserie chicken from a shelf below the packaging table to a shelf on a higher shelving unit, reducing the chance of splash contamination.

While observing Costco employees in the rotisserie area, it was also noted that Costco had updated their SOPs to instruct employees to use a blue smock under a blue apron when handling raw product and a white smock under a red apron when handling cooked product. This practice was expected to reduce the risk of the smock sleeves cross-contaminating finished product. In addition, Costco planned to have employees use plastic sleeve covers that could be sanitized between loads. This was not observed at the time of inspection, but management assured investigative staff that this was planned and would be implemented once the covers were received from the supplier.

To verify that their procedures were reducing the risk of cross-contamination, Costco food safety staff instructed the supervisor in the rotisserie area to swab the inside and outside of two cooked chickens from every oven load. The swabs were then sent to a third-party laboratory for *Salmonella* testing. This testing was conducted for the firm's first 50 oven loads after the corrective action was implemented. On 10/24/2013 Costco notified FDB that all 100 samples collected in this manner were negative for *Salmonella*.

RECALL AND MARKET WITHDRAWALS

COSTCO RECALL

In response to the investigation conducted at Costco in South San Francisco, on 10/12/2013, Costco voluntarily recalled all rotisserie chicken products produced from 9/11/2013 - 9/23/2013. After receiving notification regarding the positive findings in cooked rotisserie chicken collected on 10/7/2013, Costco expanded the recall on 10/17/2013 to include 9/24/2013 - 10/15/2013.

KROGER MARKET WITHDRAWAL

On 10/8/2013, Kroger removed from their shelves all Foster Farms' products originating from the plants of interest in this outbreak. A recall was not initiated. This action was completed by Kroger independently without any consultation or contact from FDB.

FOSTER FARMS RECALL ACTIVITY

Foster Farms has not initiated any recall activity to date.

SUMMARY OF FINDINGS

FDB assisted USDA by collecting consumer samples and investigating a sub-cluster linked to rotisserie chicken at a Costco location in South San Francisco. Samples collected by FDB, retail samples collected by Consumer Reports, and USDA's investigation at the California Foster Farms processing locations all indicated that packaged Foster Farms chicken contained multiple strains of *Salmonella* Heidelberg. Considering that chicken is a raw animal protein and there is no USDA standard for *Salmonella* in chicken parts, the presence of *Salmonella* in raw chicken samples was not unexpected. In regards to the Foster Farms samples collected from case patients, it is likely that consumers became ill due to either cross-contamination or undercooking the chicken at home. In regards to the South San Francisco Costco sub-cluster investigation, the cooked chicken that tested positive for *Salmonella* Heidelberg was likely cross-contaminated after cooking. The chicken had been cooked to an internal temperature of 180 deg. F for a minimum of 80 minutes before being transferred to the packaging table. *Salmonella* was isolated only from the exterior portion of the cooked chicken; all samples collected from internal portions of the chicken tested negative.

In response to the outbreak investigation, Foster Farms has initiated a number of corrective actions at the California Foster Farms facilities. As of June 2014, Foster Farms reported reducing the prevalence of *Salmonella* in chicken parts from the California processing plants to a ten week average of less than 3%. At the time of the USDA sampling (September 2013) the rates varied between 24% and 26%. See Attachment L.

USDA continues to monitor the three California processing plants implicated in this outbreak.

EXHIBITS:

- Exhibit A - Product testing results
- Exhibit B – Foster Farms traceback diagram

ATTACHMENTS:

- Attachment A – USDA Public Health Alert
- Attachment B – CDC web posting *Salmonella* Heidelberg
- Attachment C – Consumer Reports Foster Farms Chicken press release
- Attachment D – CDPH press release Foster Farms
- Attachment E – ERU Activity Summary – Collection Report – American Canyon
- Attachment F – ERU Activity Summary – Collection Report – Hayward
- Attachment G – ERU Activity Summary – Collection Report – San Francisco
- Attachment H – ERU Activity Summary – Collection Report – San Mateo County (1)
- Attachment I – ERU Activity Summary – Collection Report – San Mateo County (2)
- Attachment J – ERU Activity Summary – Collection Report – San Jose
- Attachment K – ERU Activity Summary - Costco
- Attachment L – Foster Farms – Response to outbreak – web-posting

Environmental Scientist: **Brandon Adcock #710**

Signature:  #710 7/1/14

Supervising Investigator: **Michael Needham #094**

Signature:  #094 7/1/2014

Recommendations: N/A

Comments: Continue coordinated outbreak investigation with USDA FSIS.