

Salmonella Challenge Studies

Salmonella Challenge ii

Salmonella Challenge in Major Meat Producer's Raw Poultry Parts



Salmonella Challenge in BIOIONIX® Treated Water Immersion Bath



CHALLENGE:

- Skinless turkey breast and skin-on turkey wings were delivered to BIOIONIX® Labs from Major Meat Producer
- Deibel Laboratories inoculated the turkey parts with an application of a Salmonella bolus comprised of Salmonella Hadar, Salmonella Arizonae, Salmonella Heidelberg, and Salmonella Schwarzengrund
- The turkey was placed in an immersion bath being actively treated with clean water or the BIOIONIX® system at varying doses of 3-3.5 FAC mg/ml or 30-40 FAC mg/ml for either 15 or 30 seconds
- The BIOIONIX® treated turkey parts saw a Salmonella reduction range of 6-log reduction.

RESULT:



The study confirms the ability of the BIOIONIX® system to eliminate significant quantities of *Salmonella* intentionally inoculated to raw poultry parts.

CHALLENGE:

- As a follow up from the Salmonella Challenge previously discussed, the Salmonella levels of the immersion bath in said study were measured to assess the plausibility of water reuse in this raw poultry application
- All study points at study start were measured for Salmonella levels, all being <10 cfu/ml.
- At study conclusion, the clean water immersion baths had accumulated 7,150 cfu/ml (wings) and 90,000 cfu/ml (breasts).
- All BIOIONIX treated immersion baths points maintained <10 cfu/ml.

RESULT:



Thus, the study confirms that the BIOIONIX® system can prevent contamination and cross-contamination in immersion baths for raw poultry inoculated with *Salmonella*.

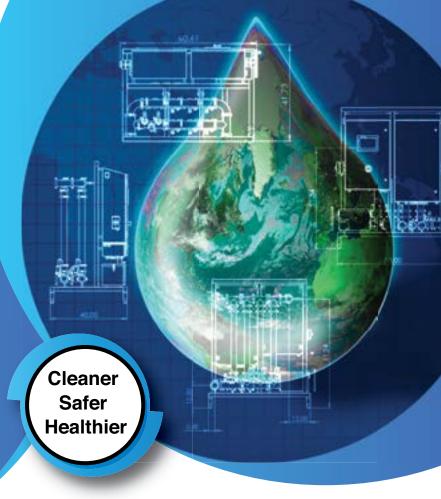
BIOIONIX® Makes the World's Food and Water Supply Safer!

Our proven, approved and patented technology uses non-chemical, natural SuperOxidants to disrupt and destroy the DNA and RNA of pathogens!



BIOIONIX® Benefits:

- Meet Sustainability Initiatives: No chemicals added, reuse water
- Save Money: Eliminate downtime, chemical costs, reduce brine disposal
- Improve Food Quality: Increase shelf life, cleaner labels, improve taste
- Peace of Mind: Continuous 24/7 monitoring



Proven Technology and Knowledge:

- Patented and proven, non-chemical systems are FDA and USDA approved as a chemical-free solution for disinfection in food manufacturing.
- The BIOS_{AI}F^{24/7} artificial intelligence software gives continual system monitoring, data collection and maintains performance.
- BIOSAIF^{24/7} allows for remote commissioning, monitoring, configuring and installation!
- More than technology! 24/7/365 Full-service support by a team of experts: engineers, food safety, chemists and animal health.



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