

# **POULTRY INDUSTRY**

# **ISSUE**

A poultry processing plant was experiencing highly leves of bacterial contamination.

## **BACKGROUND**

- Poultry are naturally highly contaminated animals
- High possibility of external contamination from various sources
- Important intestinal contamination
  - o Pathogens
  - o Spoilage



#### PROBLEM DESCRIPTION

- Chicken meat is highly contaminated due to:
  - o High levels of manipulation
  - Many food contact surfaces
  - o Inappropriate sanitization of facilities
- High contamination with Pseudomonas
- Lactic-acid bacteria spikes
- Bad odours







### **TREATMENT**

- Installation of surface sensors (7 in total).
- Sensor analysis every week (bacterial total counts, Lactic-acid bacteria tests).
- Monitoring of the results.
- Use of Biofinder to locate biofilm formation.
- Enzymatic cleaning.

#### **RESULTS**

#### **Before Treatment:**

- Contamination of concrete areas.
- Cross contamination in refrigeration areas.
- Increased contamination during manipulation.
- Biofilm widely distributed (Biofinder positives).

#### **After Treatment:**

- Significant reduction of microbial counts.
- Delay of meat spoilage.
- Increase of shelf life.
- Biofilm removed.

### RECOMMENDATION

Itram suggested the following actions:

- Differentiation of contaminated areas.
- Fixation of a bacterial limit using sensors. Create a continuous monitoring program of each item of equipment to control biofilm growth.
- Periodic cleaning of facilities with enzymatic detergents to avoid biofilm appearance.
- Strong disinfection.



