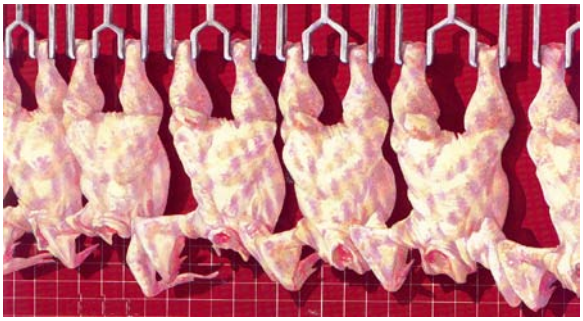
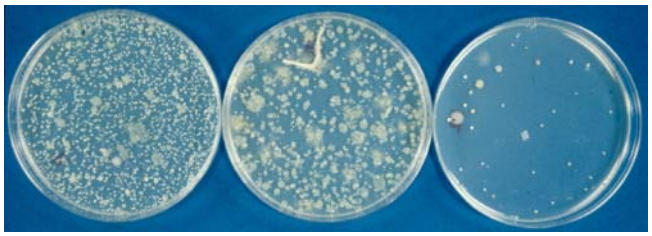


Worthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION – MAY 2008

BIOAEROSOLS IN THE PROCESSING PLANT



HANGING PICKING EVISCERATION

Indoor air quality is of concern to the processors both from an occupational safety and food safety standpoints. Poultry processing plants are prone to indoor air contamination from the handling of live poultry, as microorganisms can get airborne, travel, and settle on the workers, product, equipment, and product contact surfaces. Airborne microorganisms of food safety concern, such as *Salmonella, Staphylococcus aureus, Bacillus cereus, and Listeria* monocytogenes, and those associated with product spoilage, such as *Pseudomonas aeruginosa*, have been recovered from the air in commercial processing facilities. Highest counts of microorganisms, specifically *E. coli,* are encountered in the initial stages of processing (i.e., receiving-killing and scalding-picking areas). Air-borne microorganisms typically decrease as the product moves towards the packing and shipping areas (see Figure). The importance of proper airflow pattern in food processing plants cannot be overemphasized. Older processing facilities that have gone through repeated expansions and/or structural modifications often experience changes in airflow velocity and patterns, which may result in insufficient airflow and exchange rates, excessive condensation and moisture buildup, and high bioaerosol concentrations in downstream areas. Periodic assessment of airflow patterns in the processing could lead to process modifications in order to improve the overall hygiene and to prevent the likelihood of finished-product contamination with microorganisms of food safety and spoilage concern.

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