**INTRODUCTION**

Poultry meat can be contaminated with a variety of foodborne pathogens that may cause human illness following ingestion and is due to handling of raw meat, undercooking or mishandling of the cooked product. While Salmonella and Campylobacter spp. remain the organisms of greatest global concern, others present include the more recently reported Arcobacter and Helicobacter spp. and, occasionally, verotoxigenic Escherichia coil. Also considered here is the growing problem of antimicrobial resistance among poultry-associated pathogens. Because of the need for a systematic and universally applicable approach to food safety control, the Hazard Analysis Critical Control Point (HACCP) concept is increasingly being introduced into the Poultry Industry, and Quantitative Risk Assessment(QRA) is being developed. Among a number of completed and on-going studies on QRA are those undertaken by FAO/WHO on Salmonella and Campylobacter in broilers. In the case of Campylobacter, however, any QRA must assume at present that all strains have the same pathogenic potential for humans, even though this is unlikely to be the case. Implementation of the HACCP system in poultry processing plants addresses zoonotic agents that are not detectable by conventional meat inspection procedures.

The system brings obvious benefits in optimizing plant hygiene, ensuring compliance with legislation and providing evidence of ‘due diligence on the part of he processor. It is now being applied globally in two different situations: in one, such as that occurring in the USA, carcass contamination is progressively reduced as carcasses pass through the process and are finally chilled in super-chlorinated water. There is also the option to use a chemical-rinse treatment for further reduction of microbial contamination. In the second scenario, processors in the EU are not allowed to super-chlorinate process water, and water chilling, which has an important washing effect, is confined to carcasses intended for freezing. Also, chemical decontamination is prohibited until 2006 at the earliest. Therefore, for fresh carcasses that are air chilled, there is presently no progressive reduction in carcass contamination and no Critical Control Point at which a significant reduction in pathogen contamination can be guaranteed. Overall, effective control of the organism is best realized through a farm-to-fork approach at all stages of the supply chain.

Contamination of poultry meat with foodborne pathogens remains an important public health issue, because it can lead to illness if there are malpractice in handling, cooking or post cooking storage of the product. In developed countries, foodborne illness causes human suffering and loss of productivity, and adds significantly to the cost of food production and healthcare. It is also a possible cause of mortality, which is even more of a problem in developing regions, where the health status of many individuals is already compromise. Numerically, the most important agents are Salmonalle and Campylobacter spp. The problem is exacerbated by modern conditions of intensive rearing, where large number of birdsare kept together, and high-rate processing, in which carcasses remain in close proximity throughout the operation. Such conditions favor the spread of any pathogens that may gain access to the flock. Moreover, usage of antimicrobials in poultry production, where for prophylactic, therapeutic or performance-enhancing purposes, contributes to the development of resistance in pathogens, which is increasing, and can have serious consequences for the treatment of human illness from these organisms