12th Biological Sciences Graduate Congress 17-19 December 2007 University of Malaya

T3-P31

Prevalence of Resistant Salmonella sp. in Beef and Chicken Meat

S. Modarressi and K.L. Thong

Microbiology Division, Institute of Biological Sciences, Faculty of Science, University of Malaya, 50603 Kuala Lumpur

Food borne diseases caused by non-typhoid *Salmonella* represent an important public health problem worldwide. Most *Salmonella* infections in humans result from the ingestion of contaminated food. The emergence of antimicrobial-resistant *Salmonella* is associated with the use of antibiotics in animals raised for food. Resistant bacteria can be transmitted to humans through foods, particularly those of animal origin. In this study 100 meat samples (beef and chicken meat) were examined for *Salmonella*. These samples were purchased from wet markets and hypermarkets in the vicinity of Kuala Lumpur. Of these 100 food samples, 38 had *Salmonella* as identified by conventional biochemical tests and molecular methods. Antimicrobial susceptibility tests showed that 65%, 62%, 38%, 21% and 17% of these *Salmonella* sp. were resistant to sulfonamides, streptomycin, nalidixic acid, cephalotin and trimethoprim/sulfamethoxazol, respectively. This study shows that the resistant strains of *Salmonella* sp. are common in retail ground meat and supports the guidelines for the prudent use of antimicrobial agents in food animals.