# ANTIBIOTIC SENSITIVITY PROFILE OF *Salmonella* spp. ISOLATES IN THE SPLEEN OF CHICKEN (*Gallus gallus domesticus*) FROM A DRESSING PLANT AT TRECE MARTIRES CITY, CAVITE

*THESIS*

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# ABSTRACT

MOJICA MERVYN ATAS, April 2008 Cavite State University, Indang, Cavite. Antibiotic Sensitivity Profile of *Salmonella* spp. Isolate in the Spleen of Chickens (*Gallus gallus domesticus*) from a Dressing Plant at Trece Martires City, Cavite. Adviser: Dr. Ma. Cynthia R. dela Cruz.

The study was conducted to isolate, characterize and evaluate the antiobiotic sensitivity profile of *Salmonella* spp. isolate in the spleen of chickens in a dressing plant at Trece Martires City, Cavite.

A total of fifty presumptive *Salmonella* spp. characterized as red colonies with or without black centers were isolated from one hundred fifty spleen samples in Xylose Lysine Desoxycholate Agar. The isolates were further subjected to morphological, biochemical and serological characterization and one isolate was identified as *Salmonella* spp. with the following characteristics: gram-negative rods on gram staining; Alk/A, $H_2S$ in Triple Sugar Iron Test, citrate positive, indole negative, hydrogen sulfide formation positive, motile, Methyl Red-Vogues Proskauer Test positive-negative, gelatinase negative, urease negative, and nitrate positive on biochemical test; and produced positive agglutination result on *Salmonella* O and Vi antigens. The antibiotic sensitivity profile of the isolate revealed that the isolate was sensitive to gentamicin, trimetophrim-sulfonamide, cephalotin, norfloxacin, ampicillin, and fosfomycin but resistant to lincomycin, tetracycline, and erythromycin.

One colony isolated was confirmed to be *Salmonella* spp. Results of the study gave a prevalence rate of 0.67%, similar with the findings abroad wherein the spleen has the lowest prevalence of *Salmonella* spp.

The author recommends that molecular characterization be conducted to determine the prevalent serotype of *Salmonella* present in the animals sampled. Moreover, the author recommends testing of other antibiotics especially fluoroquinolones and chloramphenicol, because *Salmonella* was reported to be producing resistance to this family of antibiotics.

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**MERVYN ATAS MOJICA**

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## INTRODUCTION

*Salmonella* spp. is one of the leading causes of food poisoning not only for animals but also for humans that consume meat. One of the most acknowledged species responsible for transmission of this organism and acts as significant reservoirs are chickens. They are frequently associated as a source of contamination and consequently thought to be major sources of the pathogen in humans (Ozbey and Ertas, 2005).

*Salmonella* spp. may be associated with all kinds of food. Contamination of meat (cattle, pigs, goats, chicken, etc.) may originate from animal salmonellosis, but most often it results from contamination of muscles with the intestinal contents during evisceration of animals, washing, and transportation of carcasses. Infection may also