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MOLECULAR ANALYSIS AND PROFILES OF ANTIBIOTICS RESISTANCE OF SALMONELLA ENTERITIDIS ISOLATES FROM POULTRY CHAIN PRODUCTION OF THE BRAZILIAN SOUTHERN REGION

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Abstract

The agroindustrial sector of meats production and derivatives presents importance for the economic development in the Brazil's Southern States. Salmonella Enteritidis was isolated in all sectors of the productive chain of poultry and PCR-based techniques have demonstrated good applicability for identification and epidemiology studies of foodborne pathogens. The aim of this work was to evaluate molecular techniques with adequate potential to detect polymorphism of S. Enteritidis strains. In addition, was determined the antibiotic resistance profile of strains. Sixty-eight S. Enteritidis strains isolated from poultry production chain in the southern States of Brazil were analyzed with the PAST program by UPGMA method and the similarity index Euclidean. The molecular technique RAPD using the 23L primer, presented highest polymorphism, with 10 polymorphic groups and a Discriminatory Power of 0.96. For the resistance test, 75% of the isolates showed multiresistance, moreover the isolates were 100% resistant to erythromycin and 77% resistant to nalidixic acid. In conclusion, the RAPD molecular technique with the primer 23L have good applicability in epidemiological studies and the high

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incidence of mutiresistance isolates serves as an alert for the indiscriminate use of antibiotics in poultry chain production.

Keywords - Biosecurity. Antimicrobials. Multiresistance. Polymorphism.

Financial support: FAPESC/CAPES.

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6 a 10 de novembro de 2017
Unoesc Videira

**Programa de Mestrado Acadêmico
em Ciência e Biotecnologia**