

ABSTRAK

POTENSI DAN PROFIL RESISTENSI ANTIBIOTIK *Salmonella* spp. PENYEBAB PENYAKIT TULAR MAKANAN ASAL SWAB KLOAKA AYAM LAYER DI KABUPATEN GUNUNGKIDUL

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Salmonella spp. merupakan bakteri zoonotik yang dapat mencemari produk unggas seperti telur dan daging ayam, serta menjadi penyebab utama penyakit tular makanan pada manusia. Penelitian ini bertujuan untuk mengidentifikasi keberadaan *Salmonella* spp. pada ayam layer sehat di Kabupaten Gunungkidul, Yogyakarta, serta mengevaluasi profil resistensi antibiotiknya. Sebanyak 36 sampel usap kloaka diambil dari enam peternakan ayam layer di Kecamatan Wonosari, Playen, dan Semanu. Isolasi dimulai dengan pra-pengkayaan menggunakan *Buffered Peptone Water* (BPW), kemudian dilanjutkan pengkayaan selektif menggunakan kaldu *Rappaport Vassiliadis Soya* (RVS), dan penanaman pada media *Xylose Lysine Deoxycholate* (XLD) dan *Brilliant Green Agar* (BGA). Koloni terduga *Salmonella* dianalisis secara morfologis dan biokimia (TSIA, sitrat, urease). Konfirmasi molekuler dengan PCR menggunakan target gen *stn* berhasil mengidentifikasi lima isolat, yaitu G6(1), G6(2), H5(3), K4(2), dan L6(3) asal dua kecamatan Playen dan Wonosari sebagai *Salmonella* spp. Uji sensitivitas antimikroba (AST) menunjukkan bahwa dua isolat (H5(3) dan L6(3)) resisten terhadap oksitetrasiklin, serta tiga isolat (H5(3), K4(2), dan L6(3)) resisten terhadap sulfametoksazol-trimetoprim. Seluruh isolat tetap sensitif terhadap kloramfenikol dan streptomisin. Temuan ini menunjukkan bahwa ayam sehat tanpa gejala klinis dapat berkontribusi dalam penyebaran penyakit tular makanan. Selain itu, hasil AST yang sensitif terhadap kloramfenikol dan streptomisin mengindikasikan turunnya tekanan antimikroba yang menunjukkan praktik penggunaan antimikroba yang lebih baik. Namun, keberadaan isolat yang resisten terhadap antibiotik oksitetrasiklin dan sulfametoksazol-trimetoprim tetap menunjukkan perlunya pengawasan terhadap potensi resistensi antibiotik.

Kata kunci: ayam layer, PCR gen *stn*, penyakit tular makanan, resistensi antibiotik, *Salmonella* spp.

ABSTRACT

POTENTIAL AND ANTIBIOTIC RESISTANCE PROFILE OF *Salmonella* spp. ISOLATED FROM CLOACAL SWABS OF LAYER CHICKENS ASSOCIATED WITH FOODBORNE DISEASES IN GUNUNGKIDUL

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Salmonella spp. is a zoonotic bacteria capable of contaminating poultry products such as eggs and chicken meat, and is a major cause of foodborne illness in humans. This study aimed to identify the presence of *Salmonella* spp. in healthy layer chickens in Gunungkidul Regency, Yogyakarta, and to evaluate their antibiotic resistance profiles. A total of 36 cloacal swab samples were collected from six layer chicken farms located in Wonosari, Playen, and Semanu sub-districts. The isolation process began with pre-enrichment using Buffered Peptone Water (BPW), followed by selective enrichment using Rappaport Vassiliadis Soya (RVS) broth, and plating on Xylose Lysine Deoxycholate (XLD) and Brilliant Green Agar (BGA) media. Presumptive *Salmonella* colonies were analyzed morphologically and biochemically (TSIA, citrate, urease). Molecular confirmation using PCR targeting the *stn* gene successfully identified five isolates G6(1), G6(2), H5(3), K4(2), and L6(3) from the Playen and Wonosari sub-districts as *Salmonella* spp. Antimicrobial susceptibility testing (AST) revealed that two isolates (H5(3) and L6(3)) were resistant to oxytetracycline, and three isolates (H5(3), K4(2), and L6(3)) were resistant to sulfamethoxazole-trimethoprim. All isolates remained sensitive to chloramphenicol and streptomycin. These findings suggest that clinically healthy chickens may contribute to the spread of foodborne pathogens. Moreover, the AST results showing sensitivity to chloramphenicol and streptomycin may indicate reduced antimicrobial pressure, suggesting improved antimicrobial usage practices. However, the presence of isolates resistant to oxytetracycline and sulfamethoxazole-trimethoprim still highlights the need for continued monitoring of potential antibiotic resistance.

Keywords : antibiotic resistance, foodborne disease, layer chicken, *Salmonella* spp., *stn* gene PCR