ABSTRAK

PROFIL RESISTENSI ANTIBIOTIK TERHADAP BAKTERI Salmonella sp. PADA DAGING SAPI YANG DIJUAL DI PASAR TRADISIONAL DI PROVINSI YOGYAKARTA

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Salmonella sp. merupakan salah satu bakteri patogen yang dapat menyebabkan *Food Borne Disease* pada manusia melalui konsumsi makanan yang terkontaminiasi, salah satunya adalah daging sapi. Meningkatnya kasus resistensi antibiotik pada *Salmonella* sp. menjadi perhatian global karena dapat mengurangi efektivitas terapi antibiotik yang digunakan. Penelitian ini bertujuan untuk mengetahui profil resistensi antibiotik terhadap bakteri *Salmonella* sp. yang diisolasi dari daging sapi yang dijual di pasar tradisional yang ada di Provinsi Yogyakarta.

Penelitian ini menggunakan 30 sampel dari penelitian sebelumnya pada tahun 2023 yaitu berupa isolat bakteri yang diisolasi dari daging sapi yang dijual di pasar tradisional di Provinsi Yogyakarta. Isolasi dan identifikasi *Salmonella* sp. dilakukan dengan menggunakan media *Xylose Lysine Desoxycholate* (XLD), pewarnaan Gram, uji motilitas, uji katalase, uji *Triple Sugar Iron Agar*, uji *Lysine Iron Agar*, dan uji IMVIC (*Indole*, *Methyl Red*, *Voges-Proskauer, Citrate)*. Isolat *Salmonella* sp. yang didapatkan kemudian dilakukan uji resistensi antibiotik dengan metode *Kirby-Bauer disk diffusion test* menggunakan beberapa antibiotik yang sering digunakan yaitu eritromisin, penisilin G, oksitetrasiklin, dan enrofloksasin. Hasil resistensi dianalisis berdasarkan standar *Clinical and Laboratory Standards Institute* (CLSI).

Hasil yang didapatkan adalah 1 isolat *Salmonella* sp. dan 5 isolat *Salmonella* potensial dari 30 sampel. Uji sensitivitas antibiotik menunjukkan 100% isolat resisten antibiotik eritromisin, 83% resisten penisilin, dan 17% resisten oksitetrasiklin.

Kata kunci: *antibiotik, daging, resistensi, Salmonella* sp*., Yogyakarta*

ABSTRACT

PROFILE OF ANTIBIOTIC RESISTANCE IN *SALMONELLA* sp. BACTERIA ISOLATED FROM BEEF SOLD IN TRADITIONAL MARKETS IN YOGYAKARTA PROVINCE

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Salmonella sp. is one of the pathogenic bacteria that can cause foodborne disease in humans through the consumption of contaminated food, one of which is beef. The increasing cases of antibiotic resistance in *Salmonella* sp. have become a global concern as they can reduce the effectiveness of antibiotic therapies used. This study aims to determine the antibiotic resistance profile of *Salmonella* sp. isolated from beef sold in traditional markets in Yogyakarta Province.

This research used 30 samples from a previous study conducted in 2023, consisting of bacterial isolates obtained from beef sold in traditional markets in Yogyakarta Province. The isolation and identification of *Salmonella* sp. were carried out using Xylose Lysine Desoxycholate (XLD) media, Gram staining, motility test, catalase test, Triple Sugar Iron Agar (TSIA) test, Lysine Iron Agar (LIA) test, and IMViC tests (Indole, Methyl Red, Voges-Proskauer, Citrate). The isolated *Salmonella* sp. were then subjected to antibiotic resistance testing using the Kirby-Bauer disk diffusion method with commonly used antibiotics: erythromycin, penicillin G, oxytetracycline, and enrofloxacin. The resistance results were analyzed based on the standards of the Clinical and Laboratory Standards Institute (CLSI).

The results showed 1 confirmed *Salmonella* sp. isolate and 5 potential *Salmonella* isolates out of 30 samples. The antibiotic sensitivity test showed that 100% of the isolates were resistant to erythromycin, 83% were resistant to penicillin, and 17% were resistant to oxytetracycline.

Keywords: *antibiotic, beef, resistance, Salmonella* sp*., Yogyakarta*