



ABSTRAK

ISOLASI, IDENTIFIKASI *Escherichia coli* UNGGAS PHASIANIDAE, DAN UJI SENSITIVITAS ANTIBIOTIKA

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Unggas hias famili *Phasianidae* banyak dipelihara sebagai hewan kesayangan. Kemudahan mendapatkan antibiotika menyebabkan pemilik unggas hias *Phasianidae* yang mengobati sendiri hewannya sehingga penggunaan antibiotik tidak terkontrol. Penelitian ini bertujuan untuk isolasi, identifikasi *Escherichia coli* unggas *Phasianidae*, dan uji sensitivitas antibiotika.

Delapan belas sampel swab kloaka dari unggas hias diisolasi dan identifikasi *Escherichia coli* (*E. coli*). Sampel dikultur pada media *Brain Heart Infusion* (BHI) kemudian diisolasi pada *MacConkey Agar* (MCA) dan *Agar Eosin Methylene Blue* (EMB) kemudian diinkubasi selama 24 jam pada suhu 37°C. Koloni terduga *E. coli* selanjutnya dilakukan uji biokimia. Sepuluh isolat teridentifikasi *E. coli* yang kemudian diuji sensitivitas antibiotik menggunakan metode *Kirby-Bauer* terhadap antibiotik ampisilin 10 µg, sefotaksim 30 µg, siprofloksasin 5 µg, gentamisin 10 µg, tetrasiklin 30 µg, dan trimetoprim-sulfametoksazol 1,25 µg.

Hasil sensitivitas dihitung dari zona inhibisi yang terbentuk dan dibandingkan dengan standar CLSI. Hasil yang didapatkan isolat *E. coli* sensitif terhadap gentamisin (100%), trimetoprim-sulfametoksazol (70%), sefotaksim dan siprofloksasin (60%), ampisilin (40%), dan tetrasiklin (30%). Kesimpulan penelitian yaitu tingkat sensitivitas *Escherichia coli* yang diisolasi dari unggas *Phasianidae* berturut-turut dari tinggi ke rendah yaitu gentamisin, trimetoprim-sulfametoksazol, sefotaksim dan siprofloksasin, ampisilin, dan tetrasiklin. Disarankan penggunaan gentamisin untuk terapi infeksi *E. coli* pada unggas hias famili *Phasianidae*.

Kata Kunci: *Escherichia coli*, isolasi, identifikasi, Unggas hias, *Phasianidae*



ABSTRACT

ISOLATION, IDENTIFICATION *Escherichia coli* PHASIANIDAE, AND SENSITIVITY TEST

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Ornamental fowl as family of *Phasianidae* is widely nurtured as a pet. Easily get antibiotics at market provoke owner use antibiotics for their ornamental fowl *Phasianidae* is uncontrollable. This study was aimed to isolation, identification *Escherichia coli* in *Phasianidae*, and sensitivity test.

Eighteen samples of cloacal swab from ornamental fowl were isolated and identified for *Escherichia coli*. Samples were cultured to *Brain Heart Infusion* broth and then sample were cultured in *MacConkey Agar* (MCA) and *Eosin Methylene Blue* (EMB) Agar and incubated for 24 hours on 37°C. Bacterial colony suspected *E.coli* were tested using biochemical test. Ten isolates identified *Escherichia coli* were tested for the antimicrobial sensitivity using Kirby-Bauer method against antibiotics: ampicilin 10µg, cefotaxime 30µg, ciprofloxacin 5µg, gentamycin 10µg, tetracycline 30µg, and trimethophrim-sulfamethoxazole 1.25µg. The sensitivity result was determined by inhibition zone and coherent by CLSI Standard.

The result of this research showed that *Escherichia coli* isolates sensitive to gentamicin (100%), trimetophrim-sulfamethoxazole (70%), cefotaxime and ciprofloxacin (60%), ampicillin (40%), and tetracycline (30%). Conclusion of this research is sensitivity level of *Escherichia coli* were isolated from *Phasianidae* from high to low are gentamycin, trimetophrim-sulfamethoxazole, cefotaxime and ciprofloxacin, ampicillin, and tetracycline. Gentamisin is recommended for *E. coli* therapy to famili *Phasianidae*.

Keywords: *Escherichia coli*, isolation, identification, ornamental fowl, *Phasianidae*