# ABSTRAK

## UJI RESISTENSI BAKTERI SALURAN INTESTINAL EMBRIO AYAM TERHADAP AMPISILIN DAN KLORAMFENIKOL

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Industri perunggasan Indonesia masih bergantung pada penggunaan antibiotik dengan alasan produktivitas dan kesehatan**.** Antibiotik adalah zat yang dapat menghambat atau membunuh bakteri. Ampisilin dan kloramfenikol merupakan antibiotik spektrum luas yang sering digunakan dalam industri peternakan ayam**,** namun berdasarkan Peraturan Menteri Pertanian No.14/Permentan/PK.350/5/2017, penggunaan kloramfenikol dilarang pada ternak konsumsi, termasuk ayam. Penggunaan antibiotik yang tersebar luas menyebabkan bakteri patogen berkembang dan memiliki resistensi.

Penelitian ini bertujuan untuk mengetahui resistensi bakteri saluran intestinal embrio ayam terhadap ampisilin dan kloramfenikol. Sampel yang digunakan adalah 25 butir telur ayam berembrio (TAB) umur 19 hari. Embrio ayam dinekropsi, saluran intestinal diambil, kemudian dikultur pada Brain Heart Infusion (BHI). Uji resistensi menggunakan metode Kirby-Bauer menggunakan ampisilin 10µg dan kloramfenikol 30µg pada Mueller Hinton Agar (MHA). Zona hambat diukur dan dibandingkan dengan standar CSLI 2013. Kultur bakteri ditanam pada McConkey Agar (MCA) dan dilakukan pengecatan Gram. Data penelitian dianalisis secara deskriptif.

Hasil pengukuran diameter zona inhibisi ampisilin antara 0-40mm dan kloramfenikol antara 0-38mm. Bakteri resisten terhadap ampisilin sebanyak 43,75%, dan sensitif 56,25%, sedangkan bakteri resisten terhadap kloramfenikol sebanyak 18,75%, intermediet 6,25%, dan sensitif 75%. Kesimpulan dari penelitian ini adalah terjadi resistensi bakteri saluran intestinal embrio ayam sebesar 43,75% terhadap ampisilin dan 18,75% terhadap kloramfenikol.

Kata Kunci: Bakteri saluran intestinal ayam, resistensi antibiotik, ampisilin, kloramfenikol.

# *ABSTRACT*

## RESISTANCE TEST OF CHICKEN EMBRYO INTESTINAL TRACT BACTERIA AGAINST AMPICILLIN AND CHLORAMPHENICOL

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Indonesian poultry industry still relies on antibiotics for productivity and health. Antibiotics are substances that can inhibit or kill bacteria. Ampicillin and chloramphenicol are broad-spectrum antibiotics that often used in poultry industry. Based on Minister of Agriculture Regulation No.14/Permentan/PK.350/5/2017, chloramphenicol is prohibited for livestock, including chickens. Widespread use of antibiotics causes pathogenic bacteria to develop and gain resistance.

This study aims to determine resistance of chicken embryo intestinal tract bacteria to ampicillin and chloramphenicol. Samples used are 25 eggs of 19-day-old chicken embryos. Chicken embryos were necropsied, intestinal tract was taken, then cultured on Brain Heart Infusion. Resistance test using Kirby-Bauer method using 10µg ampicillin and 30µg chloramphenicol on Mueller Hinton Agar. Inhibition zones were measured and compared with CSLI 2013 standards. Bacterial cultures were grown on McConkey Agar and Gram stain was performed. Research data were analyzed descriptively.

The results are inhibition zone of ampicillin between 0-40mm and chloramphenicol between 0-38mm. There are 43.75% of bacteria are resistant to ampicillin and 56.25% sensitive, while 18.75% of bacteria are resistant to chloramphenicol, 6.25% intermediate, and 75% sensitive. In conclusion, there are 43.75% intestinal tract of chicken embryos bacteria are resistant to ampicillin and 18.75% are resistant to chloramphenicol.

Key words: Chicken intestinal bacteria, antibiotic resistance, ampicillin, chloramphenicol