

ABSTRACT

ISOLATION AND SENSITIVITY TEST *Escherichia coli* OF SUBCLINICAL MASTITIS IN DAIRY COWS MILK TO PENICILLIN G AND AMOXYCILLIN IN DISTRICT PAKEM

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Mastitis is a disease in dairy cows which caused many losses to the farmers, especially the decrease in milk production and quality. Treatment of mastitis is usually treated with antibiotics, but due to the inappropriate use of antibiotics often cause bacterial resistance. Because of the possibility of bacteria resistance to antibiotics, it is necessary to test the sensitivity of the bacteria in milk. The purpose of this study was to isolate the bacterium *Escherichia coli* in subclinical mastitis of dairy cows and to determine their sensitivity to Penicillin and Amoxycillin. This study using 20 sample of cow's milk which will be isolated to the presence of bacteria *E.coli* by using standard isolation media and additional media. *E.coli* who grew up to be tested sensitivity to antibiotics by the disk diffusion test methods.

Of the 20 samples of cow's milk is used subclinical mastitis, the bacterium *E.coli* can be isolated from 11 samples (55%). Sensitivity test results showed that 10 isolates (91%) *E.coli* bacteria are sensitive to Amoxycillin and only 1 isolates (9%) *E.coli* are sensitive to Penicillin.

Based on antibiotic sensitivity testing of isolates of *Escherichia coli* in this study, it is recommended for the treatment of subclinical mastitis in dairy cows in Pakem amoksisillin antibiotics.

Key words: *Escherichia coli*, antibiotic sensitivity, amoxycillin, penicillin.