

ABSTRACT

THE ESSENCE OF THE ISOLATION OF BACTERIAL *Escherichia coli* FROM COW'S MILK WITH SUBCLINICAL MASTITIS AS WELL AS THE SENSITIVITY TEST OF ANTIBIOTIC PENICILLIN G AND CLINDAMYCIN IN DISTRICT PAKEM

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Dairy cow mastitis is the main cause of the decline milk production. Based on clinical sign, mastitis divided in clinical mastitis and subclinical mastitis. Mastitis can be caused by infectious agents. *Escherichia coli* bacteria is one cause of mastitis. mastitis that caused by bacteria can be treated by administering antibiotics such as penicillin and clindamycin.

This research aims to determine the sensitivity of *Escherichia coli* to antibiotics penicillin G and clindamycin. The material that used in this research is eight samples containing *Escherichia coli* from 20 samples of milk. The method that used is disc diffusion sensitivity test with Kirby Bauer method. The results showed that 87.5% *Escherichia coli* resistant to penicillin and 87.5% resistant to clindamycin. *Escherechia coli* resistance against penicillin and clindamycin has occurred in the case of subclinical mastitis in district Pakem.

Keywords: Mastitis, *Escherichia coli*, penicillin G, clindamycin, test sensitivity, resistant