

IDENTIFICATION OF *Escherichia coli* BACTERIA PRODUCING *Extended Spectrum β -Lactamase* FROM RECTAL SWAB OF DAIRY COW USING VITEK-2 METHOD IN TANI WILIS COOPERATIVE, IN SENDANG TULUNGAGUNG DISTRICT

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ABSTRACT

Antibiotic resistance in animals and humans has become a global problem that needs attention. The use of antibiotics in inappropriate on food-producing animals can lead to resistance many of the pathogenic bacteria to the various types of antibiotics, one of which is the *Escherichia coli* (*E. coli*) which produces extended spectrum β -lactamase (ESBL). The aim of this study was to isolate and identified ESBL- *E. coli* isolate from dairy cow rectal swabs in Sendang, Tulungagung district using the Vitek-2 method. The number of rectal swab samples used in the present study was 50. The result of the study showed that from all of the samples could be isolated and indentified *E. coli*, based on the colony characteristics on EMBA and biochemical test. Based on the double disc synergy test method using antibiotic disc amoxicylyn-clavulanate, ceftriaxone, aztreonam, ceftazidime and cefotaxime, 10 isolates could be identify els ESBL- *E. coli*. furthermore 3 out of 10 isolates DDST positives were confirmed ESBL- *E. coli* using Vitek-2 method.

Keywords: *Eschericia coli*, ESBL, Antibiotic Resistance