ISOLATION AND IDENTIFICATION OF *Staphylococcus aureus* FROM RAW MILK RESISTANT AGAINST NON β-LACTAM ANTIBIOTICS

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ABSTRACT

The aim of this research was to study the resistance of *Staphylococcus aureus* that isolated from raw milk in 5 dairy farms in Surabaya against non β-lactam antibiotics. The research used purposive sampling method technique. Fourthy samples were culture on Mannitol Salt Agar from which 23 samples were identified there were *Staphylococcus sp* and from it were identified 7 (30,44%) samples were *Staphylococcus aureus* by showed characteristic such as mannitol fermented, grape/cluster shape, Gram positive, catalase positive test, coagulate positive test and had β haemolysin on Blood Agar. Antibiotic disk that used for sensitivity test were Tetracycline, Erythromycin, and Gentamicin using Kirby-Bauer method. The results showed that the precence of Tetracycline resistance in a sample from K and P dairy farm and the presence of Erythromycin resistance in a sample from K and W dairy farm. The existence of this resistance causes milk dangerous to be consumed by public health because the resistant bacteria, or genetic determinants of resistance, can be transmitted from animals to humans via foodstuffs and direct contact with animals.

Key words: *Staphylococcus aureus*, Raw milk, Resistant test, Non β-Lactam Antibiotics.