

Praw Suppajariyawat 2009: Detection of Enterotoxin Producing *Staphylococcus aureus* from Food Provided at Kasetsart University Bangkok Campus and Kaset Intersection Market. Master of Science (Veterinary Microbiology), Major Field: Veterinary Microbiology, Department of Veterinary Microbiology and Immunology. Thesis Advisor: Associate Professor Ong-ard Lawhavinit, Ph.D. 121 pages.

Food poisoning is a major concern worldwide and affect people's health and well-being as well as have an economic impact on individuals and nations. *Staphylococcus aureus* is a important cause of gastroenteritis. The objectives of this study were the detection of enterotoxin producing and drug resistance strains of *S. aureus* from food provided at Kasetsart University Bangkok Campus and Kaset Intersection Market.

The results to selected several foods revealed 9 types of food were grouped into three categories that were 3 courses of a meal, 2 bakery and 4 dessert and fruit juice from 30 types of food were found *S. aureus* in high number and often found in food samples. Then must chose this 864 samples were isolated enterotoxin Producing and drug resistance of *S. aureus* during period 1 years. The each 432 food samples from 4 food shops at Kasetsart University and 4 food shops at Kaset intersection market were examined. The 172 isolates of *S. aureus* were found from 142 (32.87%) food samples of Kasetsart University and also the 195 isolates were found from 163 (37.73%) food samples of Kaset intersection market. 335 of 367 isolates of *S. aureus* were coagulase positive. After detection of enterotoxin production by RPLA kit tests, 137 out of 335 coagulase positive strains could produce enterotoxin. The type of enterotoxin produced by 137 isolates were A, B, C, A&B, A&C and A&B&C&D of 31, 41, 21, 20, 23 and 1 isolates, respectively. The detection for drug resistance strains of 137 isolates that produce enterotoxin was done by sensitivity test. The two kinds tested drugs were methicillin and vancomycin. The results show that resist to methicillin 8.76% and vancomycin 5.11%.

According to the results, the *S. aureus* of enterotoxin producing and drug resistance strains were found in many kinds of food. It should be the indicator to inform the consumers were unsafe and unproper food sanitation. Therefore, it is need the high incidence of contaminated food for the safety of food to ensure the protection of consumers foods.

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Thesis Advisor's signature