

ABSTRACT

Red ginger and turmeric are the condiments which can obstruct decomposition microbes and preserving foods. The characteristics of microbes are originally from essential oil, so red ginger and turmeric function as bactericidal, by getting heated and destructed until getting smooth like porridge then smeared to the material. The aim of this research is to recognize the function of antibacterial compounds in red ginger and turmeric in obstructing and destructing certain bacterial decay which occurs in fish.

The method implemented in this research consists of four phases; phase I, phase II, phase III, and phase IV. The phase I is implemented using inhibition power test to the *Pseudomonas Aeruginosa* bacteria utilizing red ginger and turmeric as raw materials. The phase II is implemented using inhibition power test to the *Pseudomonas Aeruginosa* bacteria utilizing red ginger and turmeric powder and its comparison. The phase III is implemented the test of golden fish characteristics by using technique of estimating the existence of *Pseudomonas Aeruginosa* bacteria. The phase IV is implemented through the test of total bacteria in golden fish with concentration 1%, 3%, and 5% selected powder.

Based on the phase I test, red ginger and turmeric as the raw material, can obstruct *pseudomonas aeruginosa* bacteria. Based on the phase II test toward *pseudomonas aeruginosa* bacteria, the obstruction is higher to the powder with 50% concentration of red ginger powder and 50% turmeric powder. Based on the phase III, it is estimated that there is *pseudomonas aeruginosa* bacteria in the golden fish when it is observed through microscope with 100 times zoom enlargement. Then in phase IV, the test of total bacteria with different time and concentration can be concluded that the higher concentration used with longer saving time, the total bacteria is more decreased.

Keywords : Red Ginger, Turmeric, Red Ginger Powder, Turmeric Powder, Bacteria Obstruction Power