

ABSTRACT

Kholifah. 2014. Test of Activity of Ethanol Extract And Pare Water Extract (Momordica charantia L.) on Inhibitory Power of Growth Edwardsiella Tarda Bacterium Causes Edwardsiellosis Disease in Fish. Thesis. Biology Department, Science and Technology Faculty, Maulana Malik Ibrahim State Islamic University of Malang. Supervisor : (1) Anik Maunatin, M.P and (2) Mujahidin Ahmad, M.Sc.

Keywords : Extract, Antibacterial, *Momordica charantia* L fruit, The Minimum Inhibitory Concentration, *Edwardsiella tarda* bacterium

Increasing fishery cultivation marine water and freshwater going decrease are caused by various problem. One of the problems faced in the business of cultivating fish is illness attack to bacterium. The using of antibiotic can cause microorganisms resistant, so, other alternative as a substitute of antibiotic derived from plants that can be made as a antibacterial. Pare fruit (*Momordica Charantia L*) is one of vegetables has many benefits. pare fruit (*Momordica Charantia L*) is very efficacious because there were some compounds of secondary metabolite. Secondary metabolite compound serves to defend its selves from the environment condition that disadvantage.

The purpose of this research is to identify active compounds of Pare extracts, to know the activity of Pare extracts (*Momordica Charantia L.*) as antibacterial on *Edwardsiella tarda* and to know the Minimum Inhibitory Concentration (KHM) of pare extract on *Edwardsiella tarda* bacteria growth. Solvent that used in this pare extract is 96% ethanol and water. Both solvent are kind of polar solvent. This research used design research of factorial *Rancangan Acak Kelompok (RAK)* by two factors. The first factor is type of the extract, i.e. ethanol extract 96% and water extract. The second factor is concentration, i.e 6 mg/ml, 8 mg/ml, 10 mg/ml, and 12 mg/ml. Data that obtained from the Minimum Inhibitory Concentration (KHM) is analysed with *two way ANOVA* and duncan test followed by a distance.

The results showed that 96% ethanol Extract demonstrate compound of, saponins, polyphenols and tannins, while water extract showed compound of alkaloids, saponins and tannins. Ethanol extract in 96% has a stronger activity to inhibit growth of *Edwardsiella tarda* bacterium, when compared with extract water. Ethanol extract in 96% showed inhibitory zone diameter of 8 mm and extract water showed inhibitory zone diameter of 4.6 mm. This research was not obtained KHM on ethanol and water extracts, but happened on bacteriostatic activity from low concentrations to high concentration. Concentrations that indicate clarity level is concentration of 10 mg/ml and 12 mg/ml in ethanol extracts and 12 mg/ml in water extracts. Test results of two way ANOVA indicate that F of counting > F of table, it means, there is influence in administering ethanol extract concentration of 96% and extract Pare water on inhibitory power of *Edwardsiella tarda* bacterium growth.