EFFECTIVENESS OF *Spirulina platensis* EXTRACT IMMERSION AS IMMUNOSTIMULANT TONUMBER OF SPLENIC MELANOMACROPHAGE CENTERS IN GOURAMY FISH (*Osphronemusgouramy*) INFECTED WITH*Aeromonas hydrophila*

Iga Wahyu Aditya

ABSTRACT

The aim of this research was to investigate the immunostimulantpotentitial of *Spirulina platensis* extract against disease-causing bacteria *Aeromonas hydrophila*to feature the histopathology by decreasing the splenic melanomacrophage centers. The research method was an experimental laboratory with five treatments (n=5) and four repetitions. Twenty gouramy fishes with the average weight 20-30 grams were randomly divided into five groups, including P0-, P0+, P1, P2 and P3 respectively for control (P0-), the group that infected with $10^6 ml^{-1}$*Aeromonas hydrophila*(P0+) and the groups that immersedin water containt*Spirulina platensis* extract at 200, 400 and 600 mg L^{-1} and infected with 10^6 ml^{-1}*Aeromonas hydrophila*. After one week of adaptation, P1, P2 and P3 groups were immersed with *Spirulina platensis* extract on day 1 and 7, and then infected with $10^6 ml^{-1}$*Aeromonas hydrophila*. After 4 days of infection, all fish were euthanazed for data collection. The data were analyzed with Kruskal Wallis test. This research showed there were significant differences ($p<0.05$) between groups either for number of melanomacrophage centers (MMC). It was proved that P2 and P3 were effective dose, that showed the most mild number of melanomacrophage centers (MMC).

Key words: *Spirulina platensis* extract, *Aeromonas hydrophila*, gouramy fish, splenic melanomacrophage centers