ABSTRACT

RATNAWATI RIFAI. The effect of n-6 fatty acid from corn oil on fatty acid compositions, cell fragility and growth performance of juvenile redclaw *Cherax quadricarinatus* supervisor by: Dedi Jusadi and Enang Harris

The aim of the research was to analyze the effect of essential fatty acid from corn oil on cell fragility and growth performance of red claw *Cherax quadricarinatus*. A triplicate experiment was conducted using four different concentration of corn oil as a source of n-6 fatty acid in the diets at 0, 1, 2 or 3%, respectively. In all treatments, the diets was supplied with 1% of fish oil as a source of n-3 fatty acid, and total lipid content was 7.14%. The juvenile of red claw weighing of 3.5 – 6.5 g were fed on the diets three times a day for 60 days.

The results showed that the group of red claw fed on the diet contained 3% of corn oil had the highest of protein and lipid retention, feed efficiency and relative growth rate. It also was found that cell fragility of haemolymph decreased when corn oil concentration in the diet increased. Therefore, it could be concluded that the diet contained 3% corn oil and 3% fish oil at 7% total lipid may produce the best n-6 and n-3 fatty acids concentration to produce the lowest cell fragility and highest growth performance of red claw.

Keywords: corn oil, essential fatty acid, cell fragility, red claw.