

ABSTRACT

Siska Amalia Suwandi. 24020121140185. Histomorphometry of Tilapia (*Oreochromis niloticus*) Hepatocytes After Feeding Palm Fruit. Under the guidance of Agung Janika Sitasiwi and Aprilia Nurul Aini.

Hepatocytes are the main cells that make up the liver of tilapia and play a role in various metabolic processes in the body, including protein, carbohydrate, and lipid metabolism, as well as the detoxification of toxic compounds and the storage of glycogen as an energy source. Research on the histomorphometry of tilapia hepatocytes has not yet been conducted. This study aims to analyze the effect of palm fruit feeding on the histomorphometry of tilapia hepatocytes. The study used two treatments, namely a control group (KO) fed pellets and a treatment group (K1) fed palm fruit, which were given to 10-15-month-old tilapia for 30 days. The parameters observed included liver weight, hepatosomatic index, hepatocyte diameter, central vein diameter, body length, and body weight. The data were analyzed using the Mann-Whitney nonparametric test. The results showed that feeding palm fruit had a significant effect on hepatopancreas weight, HSI, hepatocyte diameter, and central vein diameter. The results showed that feeding palm fruit had a significant effect on hepatopancreas weight, hepatosomatic index, hepatocyte diameter, central vein diameter, and body length. The conclusion of the study proved that analyzing the effect of providing oil palm feed on the histomorphometry of tilapia hepatocytes caused differences in liver weight and hepatocyte diameter values as well as increases in body length and body weight.

Keywords: *Hepatosomatic index, central vein, liver weight, body length, body weight*