

ABSTRACT

Amalia , Aniatul . 2014. **Effect of Guava Juice (*Psidium guajava*) Against Blood Sugar Levels and Histology Pancreas mice (*Mus musculus*) were induced alloxan** . Skripsi . Department of Biology, Faculty of Science and Technology of the State Islamic University (UIN) Maulana Malik Ibrahim Malang . Biology Supervisor : Kiptiyah , M.Si ; Supervisor Religion : M. Imamudin , Lc , MA

Keywords : Diabetes mellitus , Guava (*Psidium guajava*) , blood sugar levels , the pancreas Histology

Diabetes mellitus (DM) is a disease of the pancreas endrokin hormones , such as insulin and glucagon . Diabetes mellitus due to the decreased hormone insulin produced by the pancreas gland . The purpose of this study was to determine the effect of guava juice (*Psidium guajava*) on blood glucose levels and pancreatic histology of mice (*Mus musculus*) using alloxan -induced diabetes.

This study was an experimental study using a randomized block design (RBD) with 5 treatments and 5 replicates , treatment of mice used is the negative control (no treatment) , positive control mice (diabetes without giving guava juice) and diabetic mice fed guava juice seeds with 3 different volumes , (1 is volume of 0.5 ml / mouse / day , volume 2 is 0.10 ml / mouse / day and 3 volume is 0.15 ml / mouse / day) . Data were analyzed with covariance (ANKOVA) and if it shows no effect , then followed by LSD test 5 % . To determine the degree of insulinitis is done by calculating the rate of destruction of the islets of Langerhans in the scoring method . Then scores of pancreatic damage levels were analyzed by non - parametric Kruskal Wallis .

The results showed that there is the effect of guava juice (*Psidium guajava*) on blood glucose levels and pancreatic histology of mice (*Mus musculus*) with alloxan -induced diabetes . Giving guava juice (*Psidium guajava*) is effective in lowering blood sugar levels is the volume of 0.5 ml / mouse / day with blood sugar levels produced by 91mg/dl . While the provision of guava juice (*Psidium guajava*) is effectively repair damaged pancreas of mice (*Mus musculus*) alloxan -induced diabetes is the volume of 0.5 ml / mouse / day with the extent of damage $\frac{1}{4}$.