

ABSTRACT

The Effects of Corn Flour with Tempeh Flour Supplementation Feeding in Diabetes Mellitus Male Wistar Rats (*Rattus Novergicus*) Towards Blood Glucose Level

Diabetes Mellitus is a metabolism trouble syndrome marked by hyperglycemic as a result of insulin secretion deficiency. It is predicted will increase each year where mostly is diabetes type 2. Therefore, there should be a way to control this disease by controlling eat habit. In this case, nutrition of corn and tempeh can decrease the blood glucose level. The purpose of this experiment is knowing the effect of corn flour with tempeh flour supplementation feed to male *Rattus Novergicus* toward its diabetes blood glucose level. This experiment is a true experiment that use experimental design in laboratory with *Pre-posttest With Control Group Design* vicinity, required 20 male Wistar rats aged 2-3 months were then divided into 4 groups (T0, T1, T2, T3) were injected with 40 mg / kg alloxan subsequently treated namely standard diet / T0, a standard diet + 50% corn flour 50% / T1, standard diet 50% + 30% + corn flour tempeh flour 20% / T2 and standard diet 50% + 15% + corn flour tempeh flour 35% / T3 for 4 weeks. Blood glucose levels were measured with a glucose kit GOD FS. The data were analyzed by One Way Anova test followed Tukey Post Hoc test. Results of this research was the treatment standard diet 50% + 15% + corn flour tempeh flour 35% / T3 for 4 weeks had a reduction in blood sugar levels of the most significant ($p < 0.05$) at the beginning of the first week of treatment. The conclusion is corn flour with tempeh flour supplementation feed can reduce blood glucose level.

Keywords: diabetes mellitus, blood glucose level, aloksan, corn flour, tempeh flour