

## ABSTRACT

Eka Erwanti, 2013. **Effect of Wheat Sprouts Green Beans (*Phaseolus radiatus*) Total Cholesterol reduction Against Swiss Webster mice (*Mus musculus L.*) Hiperkolesterolemik.** Department of State Health Politeknik Jember, Supervisor: Agustina Endah W., S. Sos, M. Kes, and dr. Arisanty Nur Restuti.

This study aimed to determine the effect of mung bean sprouts flour total cholesterol swiss webster mice (*Mus musculus L.*) given high-cholesterol diet. This research is (Experimental True) experimental design used was a pre-test and post-test control group design. The samples used were 24 mice were collected by simple random sampling in accordance with the inclusion and exclusion criteria were given a diet high in cholesterol such as egg yolks 0.875 g / rat for 14 days, on days -22 total cholesterol levels checked at *pre-test* and -37 day for total cholesterol checked before the *post-test* were given the green bean sprouts treated flour for 14 days. Samples were divided into 4 groups: the positive control group (K +), green bean sprouts Care flour 0.7 g (P1), mung bean sprouts Care flour 0.9 g (P2), and green bean sprouts 1.1 gr flour Care (P3). The results of a comparative study total cholesterol pre-test and post-test in each test group using paired t-test ( $\alpha < 0,05$ ). Results of statistical tests paired t-test showed that there are significant differences between the results of total cholesterol *pre-test and post-test*. Results of statistical tests paired t-test in the control group treated green bean flour 0.9 g and 1.1 g shows the p of value 0.042 ( $\alpha < 0.05$ ) and  $p = 0.001$  ( $\alpha < 0.05$ ), which means that no there are significant differences in the *pre-test and post-test*. Further data before treatment and after treatment in tests using *one-way anova* statistical test ( $\alpha < 0,05$ ). Results *one-way anova* statistical test showed a total cholesterol test results of pre-test  $p = 0.01$  ( $\alpha < 0.05$ ) which means that there are significant differences in total cholesterol test results before treatment. To find out which group is more influential then performed the *Least Significant Difference* test (LSD). LSD test results showed that total cholesterol level was significantly different from the positive control group treated with mung bean sprouts flour 0.9 g and 1.1 g are  $p = 0.005$  ( $\alpha < 0.05$ ) and  $p = 0.014$  ( $\alpha < 0, 05$ ). Whereas the group treated flour 0.7 g mung bean sprouts differed significantly by treatment group green bean flour 0.9 g and 0.11 g are  $p = 0.02$  ( $\alpha < 0.05$ ) and  $p = 0.04$  ( $\alpha < 0,05$ ). Conclusion Giving flour mung bean sprouts at a dose of 0.9 g, and 1.1 g decrease in total cholesterol levels of mice with high cholesterol diet.

**Keywords:** flour mung bean sprouts, total cholesterol.