ABSTRACT

THE REDUCTION OF CHOLESTEROL LEVELS IN RABBIT *(Orytolagus cuniculus)* ON ADMINISTRATION GLUCOMANNAN STANDARIZED PORANG POWDER *(Amorphophallus oncophyllus)*

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The major component of porang tuber *(Amorphophallus oncophyllus)* powder was glucomannan. Glucomannan has a chemical structure consisting of D-mannose and D-glucose with a ratio of 1,6:1 which is connected by glycosidic β-1,4 bonds. The bond of β-1,4 glycosidic in glucomannan can not be absorded by intestine because enzyme α-amylase in the intestine can not break down that bonds. Glucomannan can reduce cholesterol level by forming gel when contact with gastric fluid. Then, it fill the stomach, which may result delaying lipid absorbtion and reduce cholesterol level. The level of glukomannan in porang powder used as sample has been standardized and the level was $53,33 \pm 0,74$ (%b/b). The purpose of this study is to determine the activity of porang powder in reducing cholesterol levels in white rabbits which have been given a high-fat diet. This study consisted of 5 treatment groups, containing 6 rabbits per group aged about 4 months, weight 1.5-3 kg and in good health. This group consist of negative control (CMC Na 0,3%), positive control (simvastatin dose 0,023 mg/kg body weight of rabbit), porang powder standard glucomannan dose I, II, III (31,5; 61,1; 92,7 mg/kg body weight of rabbit). All treatment groups were induced with high-cholesterol diet (duk egg and lard) and PTU 0,005%. The cholesterol level was checked 3 days after induction (pretest). The treatment was administered up to 28 days with cholesterol level checking in day 7, 10, 13, 20, and 27. The result of cholesterol were analyzed with one way ANOVA (significant value 5%). The analyzed result indicated that porang powder standard glucomannan dose 92,7 mg/kg body weight can reduce cholesterol levels in rabbits significantly after 7 days of administration $(p<0,05)$.

Keyword : *(Amorphophallus oncophyllus),* porang tuber, porang, glucomannan, cholesterol.