Soursop leaves (Annona muricata Linn.) contain bioactive compounds, such as phenolic, flavonoid and tannin which can reduce cholesterol levels in the blood. The objective of this research was to determine the effect of fermented beverage from soursop leaves toward the cholesterol level of rats. The fermented beverage soursop leaves was prepared with (Streptococcus thermophilus, Lactobacillus acidophilus, and Lactobacillus plantarum 2:1:2, 2% v/v). The fermented beverage was made with different concentrations of sugar (4, 5, 6, or 7%) and skim milk (2, 3, 4, or 5%). The product was fermented for six hours and was analyzed for several parameters including pH, total titratable acidity and total lactic acid bacteria. The chosen formulation of the fermented beverage in this research was by the addition of 4% sugar and 2% skim milk. The chosen fermented beverage had pH values of 4.46±0.01, total titratable acidity of 0.43±0.01%, and total lactic acid bacteria of 5.2 x 10^8 CFU/ml. Based on these parameters, the best formulation of the fermented beverage was chosen. The product was then given to rats to determine the effect on total cholesterol levels, LDL, HDL and triglycerides. The result showed that the chosen formulation could lower the cholesterol levels. This was indicated by the decreasing values of total cholesterol, LDL, triglycerides and also the increasing value of HDL in the rat’s blood as compared to control.

Keyword : Annona muricata L., cholesterol, fermented beverage, Sprague Dawley
References : 115 (2003-2014)