

ABSTRACT

Nihayah. Nurun. 2014 *Effect of Sucrose Concentration and Extract Banana Peel Toward Quality Beverages Synbiotic of Kepok Banana Peel (Musa paradisiaca)*. Thesis Departement of Biology. Faculty of Science and Technology. State Islamic University (UIN) Maulana Malik Ibrahim Malang. Biology Supervisor: ir. Liliek Harianie, AR. M.P. Religion Supervising: Mujahideen Ahmad M.Sc.

Keywords: Synbiotic, Lactic Acid Bacteria, Concentration Kepok Banana Peel Extract (*Musa paradisiaca*), Sucrose Concentration.

Synbiotic is the interaction between probiotic microorganisms with prebiotic substances produce lactic acid and accelerate the growth of probiotics in the digestive system, because prebiotics as food lactic acid bacteria to metabolize. One is fruktooligosakarida prebiotic substances contained in the banana peel. Aside from Fructooligosaccaride, sucrose is one of nourishment of lactic acid bacteria. This study has the purpose to determine the effect of sucrose concentration and the banana peel drinks on synbiotic quality.

Type of research is experiment with treatment variations and variations in the concentration of sucrose and concentration juice banana peel. Using a factorial completely randomized design factors namely 2 and 4 replications. The first factor is the concentration of sucrose that is 0%, 6%, 8% and 10%. While the second factor is the concentration of the banana peel extract with water which is 1: 1, 2: 1, 3: 1 and 4: 1. Test parameters in this study is the analysis of total acidity, pH, total lactic acid bacterial colonies, and organoleptic test by hedonic methods. The data obtained will be analyzed with two lines ANOVA, if value is significant then further tested HSD 5%

The results showed that the best concentration of sucrose 8% on the total acidity parameters (1.5%), pH (3.80) and total lactic acid bacterial colonies (1.26×10^8 (cfu / ml)). While the effect of banana peel extract concentration of 3: 1 Best on the total acidity (1.5%), pH (3.80) and total lactic acid bacterial colonies (1.26×10^8 (cfu / ml)). Interaction of sucrose concentration on the banana peel and juice drinks synbiotic not affect all parameters In the organoleptic tests, assessment of the 15 panelists from the parameters of color, aroma, flavor and texture, a combination of sucrose concentration and extract the most preferred banana peel is at a concentration of 8% sucrose and banana peel extract kepok 1: 3.