

PEMANFAATAN BEKATUL SEBAGAI BAHAN DASAR NATA DENGAN BERBAGAI KONSENTRASI GULA PASIR DAN KONSENTRASI STARTER *Acetobacter xylinum*

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ABSTRACT

Nata is one of fermentation diet result created by *acetobacter xylinum* bacteria. Nata variant wellknown by society is nata de coco made from coconut water. Outside the coconut water, nata could also made from another source, one of them by using rice waste, called bran. The research aimed to find out the influence of various sand sugar to nata quality from bran, finding the influence of various *Acetobacter xylinum* starter concentrate to nata quality from bran, and also find out the combination influence of various sand sugar concentrate to the nata quality from bran.

The research form was true experiment. To arrange the treatment in field, the research used complete random design, the design used to measure nata quality and organoleptic, used factorial arrangement with two factors and two repetition. Factor 1 was sand sugar concentrate addition with 4 level (6%, 8%, 10%, dan 12%) and factor II was concentrate of *Acetobacter xylinum* starter with 4 levels (5%, 10%, 15%, dan 20%). Sampling technique used Simple Random Sampling. Research indicator was nata quality consisted of thickness, water rate, wet weight, reduction sugar rate, fiber rate, and nata organoleptic (texture, color, and aroma). The research was done in October 10th 2009 to December 11th 2009 in Biology and Chemical Lab University of Muhammadiyah Malang. Data found was analyzed by 2 factor Anava and continued with Duncan's test with significance rate 5%.

The result showed that sand sugar concentrate and *Acetobacter xylinum* starter addition influenced the quality difference of nata (thickness, water rate, and fiber rate). But it wasn't influenced the difference of wet weight, reduction sugar, texture, color and aroma of nata resulted. The best treatment to make nata thickness from bran was the combination of G4S4 (sand sugar concentrate addition 12% and *Acetobacter xylinum* starter concentrate 20%).