The Utilization Of Pineapple Peel For Nata Production

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Abstrak

The pineapple (Ananas comosus Merr.) is very popular and can be easily be found in Indonesia. In the canning process; much of the pineapple peel waste are produced. This waste is potential to be utilized for substrate fermentation, such as for nata de pina fermentation. Pineapple peel are squeezed to get juice (mill juice). Into the mill juice is added 3 kinds- of sucrose concentration (5%, 7.5%, 10%) and also 3 kinds of Nitrogen sources [NH4H2P04 ; (NH4)7S04 ; Yeast Extract] with 3 different concentration (0.25% , 0.50% , 0,75%). Nata bacteria, A. xylinum TISTR 107 is maintained in Tomato Peptone Sucrose Salt Medium broth. Starter of a 7 day old with 10% concentration is used to inoculate the 70 ml of substrate fermentation. Fermentation is carried out in marmalade's bottle (ca. 350 ml). with still culture method for 14 days at room temperature (31°C). The best nata thickness is obtained from sucrose with 7.5-10% concentration and yeast extract with 0.5-0.75% concentration (0.91 - 1.04 cm). However, sucrose with 0.5% concentration. and yeast extract 0.75% concentration also produce 0.95% nata thickness. The thinnest nata production is obtained from substrate with sucrose 10% concentration and (NH4)2S04 (0.23 - 0.25 cm).