

## **Karakterisasi Sirup Gula Nira Kelapa dengan Metode Pengeringan Beku**

*(Characterization of Coconut Nira Sugar Syrup by Freeze Drying Method)*

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### ***ABSTRACT***

*Nira is a thick sweet liquid on coconut flowers that have not yet bloomed. The sugar content in sap is more than 80% sucrose (per total solids) and about 2.3% glucose and fructose per total solids. Nira can be processed into sugar syrup. Conventional sugar sap production which still uses a hot process causes the sugar to turn brown, is less applicable, and loses nutrients. This study aims to determine the effect of freeze drying time on the sugar content of the sap sugar syrup and the effect of storage temperature on the total microbes and sugar content of the coconut sap sugar syrup which is dried using a freeze dryer. The coconut sap was dried using a freeze dryer with variations in drying time of 0, 6, 24, 48 hours and the sap sugar syrup was then stored at different temperatures of 25°C, 4°C, -20°C. The parameters observed in this study included the sugar content of the sap before drying, the content of the sap sugar syrup, the total bacteria and the sugar content after storage. The results of this study are the longer the drying process time, the less water content so that the sugar is more concentrated and the effect of freeze drying time on sugar content of sugar syrup obtains a linear equation  $y = 21.036x + 27.168$ . 2. Storage temperature treatment had no significant effect ( $p > 0.01$ ) on the sugar content of coconut sap sugar syrup while storage temperature treatment had a significant effect ( $P < 0.01$ ) on total coconut sap sugar syrup microbes.*

**Keywords:** *coconut sap, freeze dring, sugar syrup*