

RINGKASAN

Mutu gula kelapa ditentukan bahan baku utamanya yaitu nira kelapa. Nira kelapa memiliki kandungan gula yang tinggi sehingga mudah rusak melalui fermentasi. Pencegahan kerusakan nira kelapa dapat dilakukan dengan cara pengawetan yaitu penambahan laru dan pemanasan. Tujuan penelitian ini adalah: 1) mengetahui pengaruh waktu sadap terhadap mutu mikrobiologi nira kelapa, 2) mengetahui pengaruh penambahan laru dan pemanasan terhadap mutu mikrobiologi nira kelapa.

Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) faktor penelitian adalah waktu sadap: pagi-sore hari pukul 07.00-15.00 WIB (W1); waktu sadap sore-pagi hari pukul 15.00-07.00 WIB (W2) dan variasi penambahan laru: nira tanpa laru tanpa pemanasan (P1); nira laru tanpa pemanasan (P2); nira pemanasan tanpa laru (P3); nira laru dan pemanasan (P4). Variabel yang diamati meliputi jumlah mikroba, nilai pH, Total Padatan Terlarut, dan nilai Aw. Data yang diperoleh dilakukan uji F taraf kepercayaan 5% apabila berpengaruh nyata lanjutkan uji DMRT (*Duncan Multiple Range Test*) taraf kepercayaan 5%.

Hasil penelitian menunjukkan Semakin lama waktu sadap mutu mikrobiologi nira kelapa semakin rendah. Nilai rerata variabel pada waktu sadap pagi-sore hari dan sore-pagi hari berturut-turut yaitu: mikroba (5,67 log CFU/ml dan 6,37 log CFU/ml). Mutu mikrobiologi nira kelapa waktu sadap pagi-sore hari lebih baik dibanding waktu sadap sore-pagi hari. Variasi penambahan laru dan pemanasan (P4) dapat mempertahankan mutu mikrobiologi nira kelapa. Variasi tersebut efektif dapat mengurangi jumlah mikroba, meningkatkan nilai pH meningkatkan Total Padatan Terlarut dan mengurangi nilai Aw.

SUMMARY

The quality of coconut sugar is determined by the main ingredient, namely coconut sap. Coconut sap has a high sugar content so it is easily damaged through fermentation. Prevention of damage to coconut sap can be done by means of preservation, namely the addition of solvent and heating. The aims of this study were: (1) to determine the effect of tapping time on the microbiological quality of coconut sap, (2) to determine the effect of adding solvent and heating on the microbiological quality of coconut sap.

This study used a Randomized Block Design (RBD). The research factors were tapping time: morning-afternoon at 07.00-15.00 WIB (W1); tapping time in the afternoon-morning at 15.00-07.00 WIB (W2) and variations in addition of sap: sap without preservation and heating (P1); sap preservation and without heating (P2); sap heating and without preservation (P3); sap preservation and heating (P4). The variables observed included the number of microbes, pH value, Total Dissolved Solids, and Aw value. The data obtained by the F test with a confidence level of 5%, if it has a significant effect, continue the DMRT (Duncan Multiple Range Test) test with a confidence level of 5%.

The results showed that the longer the tapping time the microbiological quality of coconut sap was lower. The mean value of the variables at the time of tapping in the morning-afternoon and afternoon-morning, respectively, were: microbes (5.67 log CFU/ml and 6.37 log CFU/ml). The microbiological quality of coconut sap when tapping in the morning-afternoon is better than when tapping in the afternoon. Variations in addition of solvent and heating (P4) can maintain the microbiological quality of coconut sap. These variations can effectively reduce the number of microbes, increase the pH value, increase the Total Dissolved Solids and reduce the Aw value.