

## ABSTRAK

Tujuan dari penelitian ini untuk mengetahui adanya korelasi antara perbandingan nira dan gula merah cair terhadap karakteristik gula semut yang dihasilkan.

Penelitian ini menggunakan metode regresi linier sederhana, untuk melihat korelasi perlakuan terhadap respon yang diuji. Percobaan yang dilakukan sebanyak 9 perlakuan dan masing – masing perlakuan di ulang 3 kali sehingga diperoleh 27 satuan percobaan. Untuk menguji adanya korelasi antar perlakuan terhadap semua respon yang diamati maka dilakukan analisis regresi linier dengan model percobaan  $Y = a + bx$ . Respon organoleptik yang di uji adalah warna, aroma dan tekstur. Respon kimia yang di uji kadar air, kadar gula reduksi dan kadar gula total.

Berdasarkan hasil penelitian pendahuluan perlakuan proses yang terpilih untuk pembuatan gula semut adalah pembuatan gula semut dengan metode pemasakan langsung. Berdasarkan hasil penelitian utama adanya korelasi antara perbandingan nira aren dengan gula merah cair terhadap kadar air, kadar gula reduksi dan kadar gula total dengan koefisien korelasi masing – masing adalah nilai  $r = 0,2294$  untuk kadar air,  $r = 0,9784$  untuk kadar gula reduksi, dan  $r = 0,8857$  untuk kadar gula total. Sampel gula semut yang disukai panelis yaitu kode sampel 439 yang dibuat dengan perbandingan nira aren dengan gula merah cair ( 2 : 1)

Kata Kunci : nira, gula merah cair, kadar air, kadar gula reduksi, kadar gula total.

## **ABSTRAC**

*The aim of this study was to find out the correlation between the ratio of palm sap and liquid brown sugar toward the characterisitic of the resulting coconut palm sugar.*

*The study used simple linear regression method to see correlation treatment toward the sample tested. The experiment was done in 9 treatments, each treatment was repeated in 3 times, thus there were 27 experiments. To examine the correlation among treatments toward all of the sample tested, linear regression analysis was done by using experimental model  $Y = a + bx$ . Organoleptic samples which were tested involved colour, aroma, and texture. Chemical samples which were tested involved moisture content, reducing sugar content, and total sugar content.*

*Based on the finding and discussion of this study, the selected treatment process for making coconut palm sugar was the direct cooking method. Based on the result of this study, the availability of the correlation between the ratio of palm sap and liquid brown sugar toward moisture content, reducing sugar content, and total sugar content with each correlation coeffecient were  $r = 0,2294$  for moisture content,  $r = 0,9784$  for reducing sugar content, and  $r = 0,8857$  for total sugar content. The sample of coconut palm sugar which became panelists' favourite was the sample code 439 with the ratio of palm sap and liquid brown sugar around 2 : 1.*

*Keywords : palm sap, liquid brown sugar, moisture content, reducing sugar content, total sugar content.*