

ABSTRAK

Tujuan dari penelitian yang dilakukan adalah untuk mengetahui pengaruh jenis bahan pengawet alami pada nira dan konsentrasi STPP terhadap kualitas gula merah aren sehingga dapat menghasilkan gula merah dengan kualitas yang optimum. Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok (RAK) pola faktorial (3x3) dengan 3 kali ulangan. Rancangan perlakuan terdiri dari dua faktor, yaitu jenis bahan pengawet alami pada nira (P) yang terdiri dari 3 taraf (serbuk kulit manggis, serbuk daun jambu biji, dan serbuk daun cengkeh) dan konsentrasi STPP (0,02%; 0,05%; dan 0,08%). Respon kimia meliputi analisis kadar air, kadar abu, kadar gula reduksi, dan kadar gula total. Respon organoleptik meliputi warna, rasa manis, aroma, dan tekstur. Hasil penelitian menunjukkan bahwa jenis bahan pengawet alami pada nira berpengaruh terhadap kadar air, kadar gula reduksi, kadar gula total, warna, dan rasa manis gula merah aren. Konsentrasi STPP berpengaruh terhadap kadar air, kadar abu, warna, rasa manis, dan tekstur gula merah aren. Interaksi antara keduanya berpengaruh terhadap kadar abu, kadar gula reduksi, warna, dan rasa manis gula merah aren. Perlakuan terpilih adalah p1s3 (jenis bahan pengawet alami serbuk kulit manggis dan konsentrasi STPP 0,08%) dengan kadar air 4,294%, kadar abu 0,892%, kadar gula reduksi 3,901%, dan kadar gula total 82,890%.

Kata kunci : Gula merah aren, nira aren, serbuk pengawet alami, sodium tripolifosfat.

ABSTRACT

This research aims to know the effect caused by a type of natural preservative on Arenga pinnata sap and concentration of Sodium Tripolyphosphate (STPP) to the quality of palm sugar in order to produce a type of palm sugar with optimal quality. The experimental plan used in this research is Randomized Block Design of two factors. The first factors is a type of natural preservative on Arenga pinnata sap (P) consist of 3 levels (mangosteen peel powder, guava leaves powder, and clovers powder) and the second factors is concentration of STPP consist of 3 levels (0,02%, 0,05%, and 0,08%) with 3 replications. The chemical responses analyzed were content of water, ash content, reducing sugar, and total sugar content. The organoleptic responses are color, sweetness taste, aroma, and texture. This research shows that a type of natural preservative on Arenga pinnata sap affects on the content of water, reducing sugar, total sugar content, color, and sweetness taste of palm sugar. The concentration of STPP affects on the content of water, ash content, color, sweetness taste, and texture of palm sugar. Interaction between both factors affects on the ash content, reducing sugar, color, and the sweetness taste of palm sugar. the chosen treatment is p1s3 (a type of natural preservative on Arenga pinnata sap and concentration of STPP of 0,08%) with water content of 4,294%, ash content of 0,892%, reducing sugar content of 3,901%, and total gula content of 82,890%.

Keyword : Arenga pinnata sap, natural preservative powder, palm sugar, sodium tripolyphosphate.