INTISARI

Buah merupakan bahan makanan yang kaya akan lemak, vitamin, mineral, seperti rasa yang lezat, aroma yang khas serta warna dan bentuk yang mengandung nilai estetis. Salah satunya yaitu buah jeruk, merupakan buah yang banyak digemari masyarakat karena memiliki nilai gizi dan mempunyai nilai ekonomi. Buah jeruk dapat dijumpai dalam setiap musim. Seiring perkembangan teknologi industri makanan dan minuman, buah jeruk dapat dikonsumsi dalam bentuk segar maupun olahan. Masyarakat modern lebih memilih minuman kemasan karena minuman kemasan dianggap praktis dan mudah didapatkan. Buah ini memiliki kandungan gizi esensial yang sangat baik bagi tubuh seperti karbohidrat, kalsium, potassium, folat, thiamin, vitamin B6, magnesium, fosfor, niacin, asam pantotenat, dan vitamin C. Tujuan penelitian ini adalah untuk mengetahui pengaruh konsumsi minuman jeruk terhadap derajat keasaman (pH) saliva tiruan.

Penelitian menggunakan minuman jus jeruk segar dan minuman jus jeruk kemasan sebagai kelompok perlakuan sedangkan Aquades sebagai kelompok kontrol negatif, masing-masing sebanyak 3 sampel. Pada tabung reaksi dicampurkan 2,5 ml minuman perlakuan dengan 2,5 ml suspensi bakteri *S.mutans* konsentrasi 1,5 x 10^8 CFU/mL serta ditambahkan dengan saliva tiruan sebanyak 2,5 ml. Pengukuran pH menggunakan alat pH meter yang telah dikalibrasi sebelumnya, dilakukan pada menit ke-0, 5, 10, 15 dan 30. Selanjutnya dilakukan analisis data dengan menggunakan uji statistik pada $p<0,05$.

Hasil uji ANOVA menunjukkan bahwa terdapat perbedaan yang signifikan nilai pH antara kelompok perlakuan (minuman jus jeruk segar dan jus jeruk kemasan) serta minuman Aquades. Hasil uji *Dunnet T3* menunjukkan penurunan bermakna pH saliva tiruan pada kelompok minuman jus jeruk segar dan Aquades setelah terpapar bakteri *S.mutans* ATCC 25175, sedangkan pada kelompok minuman jus jeruk kemasan terjadi peningkatan pH. Disimpulkan bahwa tidak ada perbedaan bermakna pH saliva tiruan antara kelompok minuman jus segar dan jus jeruk kemasan pada menit ke-30 dan pH saliva tiruan kategori asam.

Kata Kunci : Buah Jeruk, Jus Jeruk Kemasan, Jus Jeruk Segar, pH Saliva, Saliva Tiruan.

ABSTRACT

Fruit is a food ingredient that is rich in fat, vitamins, minerals, such as delicious taste, distinctive aroma and color and shape that contain aesthetic value. One of them is orange fruit, which is a fruit that is very popular with the public because it has nutritional value and has economic value. Orange is easy to find in every season. Along with development of food and beverage industry technology, orange fruit can be consumed in fresh or processed form. Modern society prefers packaged drinks because packaged drinks are considered practical and easy to obtain. Oranges are consumable both in fresh and processed conditions. It has the essential nutrition for body, such as carbohydrate, calcium, potassium, folate, thiamin, vitamin B6, magnesium, phosphor, niacin, pantothenic acid, and vitamin C. This study aims to find out the influences of consuming orange beverage toward the acidity (pH) of artificial saliva.

The study used fresh orange juice drinks and packaged orange juice drinks as the treatment group, while Aquades as a negative control group, each with 3 samples. In the test tube, 2.5 ml of treatment drink was mixed with 2.5 ml of s.mutans bacterial suspension with a concentration of 1.5 x 10^8 CFU/mL and 2.5 ml of artificial saliva was added. pH was measured at 0, 5, 10, 15 and 30 minutes using pH meter. pH meter was calibrated before use Then, data analysis was carried out using statistical tests at $p<0.05$.

The results of the ANOVA test showed that there was a significant difference in the pH value between the treatment groups (fresh orange juice drinks and packaged orange juice) and Aquades drinks. The results of the Dunnet T3 test showed a significant decrease in the pH of artificial saliva in the fresh orange juice drink group and Aquades after being exposed to the bacteria S. mutans ATCC 25175, while in the orange juice drink group there was an increase in pH. It was concluded that there was no significant difference in the pH of artificial saliva between the group of fresh juice drinks and packaged orange juice at 30 minutes and the pH of saliva from the acidic category.

Keywords : Orange juice, Canned Orange Juice, Fresh Orange Juice, Saliva pH, Artificial Saliva