

# **PENGARUH PENAMBAHAN MADU SUMBAWA DAN LAMA FERMENTASI TERHADAP MUTU KOMBUCHA SARI BUAH NANAS (*Ananas comosus*)**

## **(*The Effect of Adding Sumbawa Honey and Fermentation Time on the Quality of Pineapple Juice Kombucha (Ananas comosus)*)**

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### **ABSTRACT**

*Pineapple juice kombucha is a fermented drink made from pineapple juice using a SCOBY (Symbiotic Culture of Bacteria and Yeast) starter. This research was aimed to determine the effect of adding Sumbawa honey and fermentation time on Total Plate Count (TPC), total yeast, total acid, antioxidant activity and organoleptic (color, aroma and taste) properties of pineapple juice kombucha. This study used a completely randomized design (CRD) with 2 factors, 6 treatments and 3 replications. The experiment of adding Sumbawa honey and fermentation time used was with a concentration of 10% and 20% Sumbawa honey while the fermentation time consisted of 4 days, 8 days, and 12 days. The tested parameters were TPC, total yeast, total acid, and antioxidants activity as well as organoleptic quality which included color, taste and flavor. From the observational data, the diversity was analyzed with a significance level of 5% using the Co-Stat application. If there was a significant difference, further testing was carried out with the Honestly Significant Difference (HSD) test. The results showed that the addition of Sumbawa honey and fermentation time had a significant effect on Total Plate Count (TPC), total yeast, total acid, antioxidant activity and organoleptic quality including aroma (hedonic). The best treatment was the addition of 20% honey and 8 days of fermentation with a total plate count of 6.67 log CFU/ml, total yeast 8.57 log CFU/ml, total acid 0.507%, antioxidant activity 96.321% with organoleptic color "yellow", flavor "slightly pineapple-scented", taste "sour".*

**Keywords :** *Sumbawa honey, pineapple juice, kombucha.*

### **ABSTRAK**

Kombucha sari buah nanas merupakan minuman fermentasi dari sari buah apel menggunakan starter SCOBY (*Symbiotic Culture of Bacteria and Yeast*). Penelitian ini bertujuan untuk mengetahui pengaruh penambahan madu Sumbawa dan lama fermentasi terhadap total mikroba, total khamir, total asam, aktivitas antioksidan dan organoleptik (warna, aroma dan rasa) kombucha sari buah nanas. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 2 faktor 6 perlakuan dan 3 kali ulangan. Percobaan penambahan madu Sumbawa dan lama fermentasi yang digunakan yaitu dengan konsentrasi madu Sumbawa 10% dan 20% sedangkan untuk lama fermentasi terdiri dari 4 hari, 8 hari, dan 12 hari. Adapun parameter yang diuji adalah *Total Plate Count* (TPC), total khamir, total asam, dan aktivitas antioksidan serta mutu organoleptik yang meliputi warna, aroma dan rasa. Dari data hasil pengamatan dianalisis keragaman dengan taraf nyata 5% dengan menggunakan aplikasi Co-Stat. Apabila terdapat beda nyata, dilakukan uji lanjut dengan uji Beda Nyata Jujur (BNJ). Hasil penelitian menunjukkan bahwa penambahan madu Sumbawa dan lama fermentasi memberikan pengaruh nyata terhadap *Total Plate Count* (TPC), total khamir, total asam, aktivitas antioksidan dan mutu organoleptik meliputi aroma (hedonik). Perlakuan terbaik adalah penambahan madu 20% dan lama fermentasi 8 hari dengan *total plate count* 6,67 log CFU/ml, total khamir 8,57 log CFU/ml, total asam 0,507%, aktivitas antioksidan 96,321% dengan organoleptik warna "kuning", aroma "agak beraroma nanas", rasa "asam".

**Kata kunci:** madu Sumbawa, sari buah nanas, kombucha.