

**PENGARUH KONSENTRASI STARTER *KEFIR GRAIN* DAN KONSENTRASI GULA SEMUT AREN (*Arenga pinnata* L.) TERHADAP MUTU *WATER KEFIR* NANAS MADU (*Ananas comosus* L. Merr)**

**THE EFFECT OF STARTER CONCENTRATION *KEFIR GRAIN* AND CONCENTRATION OF PALM SUGAR TO QUALITY *WATER KEFIR* HONEY PINEAPPLE**

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**ABSTRACT**

*Water kefir honey pineapple juice is a fermented drink made from honey pineapple juice with the addition of a starter kefir grain and palm sugar with a fermentation time of 24 hours. The purpose of this study is to determine the concentration starter kefir grain and palm ant sugar concentration on microbiological, chemical and organoleptic quality water kefir honey pineapple juice. This study used a completely randomized design (CRD) with 2 factors, namely concentration starter kefir grain 8% and 15% and palm ant sugar concentrations of 5%; 7.5% and 10% with 6 treatments and 3 replications to obtain 18 experimental units. The parameters tested in this study were Total Lactic Acid Bacteria (LAB), total yeast, total acid, pH, and organoleptic which included color, aroma, taste and sensation of soda. Observational data were analyzed for diversity with a significant level of 5% using an application Co-State. if there is a significant difference, a further test is carried out with the Honest Significant Difference (BNJ) test. The results showed that the addition of concentration starter kefir grain and the sugar concentration of palm ants had a significant effect on Total Lactic Acid Bacteria (LAB), total yeast, total acid, pH, organoleptic including aroma (hedonic), taste and sensation of soda (scoring). The best treatment is concentration starter kefir grain 15% and 10% palm sugar concentration with total lactic acid bacteria (LAB) 8.07 log CFU/mL, total yeast 8.15 log CFU/mL, total acid 0.82%, pH 3.31 with organoleptic aroma " smells a bit typical of pineapple", the taste is "sour", the color is "brownish yellow", and the sensation of soda is "slightly fizzy" which the panelists like.*

**Keywords :** Palm ant sugar, honey pineapple juice, starter kefir grain, water kefir

**ABSTRAK**

*Water kefir sari buah nanas madu merupakan salah satu minuman fermentasi yang terbuat dari sari buah nanas madu dengan penambahan starter kefir grain dan gula semut aren dengan waktu fermentasi 24 jam. Tujuan dari penelitian ini adalah untuk mengetahui konsentrasi starter kefir grain dan konsentrasi gula semut aren terhadap mutu mikrobiologis, kimia dan organoleptik water kefir sari buah nanas madu. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 2 faktor yaitu konsentrasi starter kefir grain 8% dan 15% dan konsentrasi gula semut aren 5%;7,5% dan 10% dengan 6 perlakuan dan 3 kali ulangan sehingga didapatkan 18 unit percobaan. Adapun parameter yang diuji pada penelitian ini adalah Total Bakteri Asam Laktat (BAL), total khamir, total asam, pH, dan organoleptik yang meliputi warna, aroma, rasa dan sensasi soda. 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 konsentrasi starter kefir grain dan konsentrasi gula semut aren memberikan pengaruh nyata terhadap Total Bakteri Asam Laktat (BAL), total khamir, total asam, pH, organoleptik meliputi aroma (hedonik), rasa dan sensasi soda (skoring). Perlakuan terbaik adalah kosnentrasi starter kefir grain 15% dan konsentrasi gula semut aren 10% dengan total bakteri asam laktat (BAL) 8,07 log CFU/mL, total khamir 8,15 log CFU/mL, total asam 0,82%, pH 3,31 dengan organoleptic aroma "agak beraroma khas nanas", rasa "asam", warna "kuning kecoklatan", dan sensasi soda "agak bersoda" yang disukai panelis.*

**Kata kunci :** Gula semut aren, sari buah nanas madu, starter kefir grain, water kefir