

INTISARI

Ubi kayu dapat diolah menjadi tapai. Secara umum tapai ubi kayu dibuat dengan penambahan ragi tapai. Makanan probiotik belakangan ini menjadi tren sebagai pangan fungsional, maka dari itu dalam penelitian ini ditambahkan *Lactobacillus plantarum* Dad-13 dan *Saccharomyces boulardii* agar menghasilkan tapai probiotik. Tujuan penelitian yaitu untuk mengetahui pengaruh jenis penambahan inokulum dan varietas ubi kayu terhadap sifat kimia, fisik, jumlah probiotik, serta tingkat kesukaan tapai ubi kayu probiotik.

Penelitian ini menggunakan rancangan acak lengkap pola faktorial dengan perlakuan penambahan jenis inokulum dan varietas ubi kayu. Faktor pertama, jenis inokulum yang digunakan adalah NKL, *Saccharomyces boulardii* dan *Lactobacillus plantarum* Dad-13, sedangkan faktor kedua ialah varietas ubi kayu yang digunakan jenis kuning (mentega) dan putih (meni). Analisis yang dilakukan meliputi pH, kadar air, gula total dan kadar alkohol, warna, jumlah bakteri asam laktat (BAL) dan *yeast*. Uji aktivitas antioksidan serta tingkat kesukaan. Data yang diperoleh dianalisis menggunakan *Analysis of Variance One Way* dan apabila ada perbedaan antar perlakuan dilanjutkan dengan uji *Duncan's Multiple Range Test* dengan tingkat signifikan 0,05.

Hasil penelitian menunjukkan jenis inokulum dan varietas ubi kayu berinteraksi terhadap pH, kadar air, gula total dan kadar alkohol), sifat fisik (warna), jumlah BAL dan *yeast*, aktivitas antioksidan serta tingkat kesukaan tapai ubi kayu probiotik yang dihasilkan. Tapai probiotik yang disukai panelis yaitu tapai ubi kayu kuning yang ditambah inokulum NKL dan kedua jenis probiotik mempunyai nilai pH 5,65, kadar air 57,88%, aktivitas antioksidan 90%RSA, gula total 14,99%, kadar alkohol 3,38%, warna *lightness* 54,97, *redness* 1,95, *yellowness* 20,28, jumlah BAL $6,3 \times 10^8$ CFU/g, dan jumlah *yeast* $6,3 \times 10^7$ CFU/g.

Kata kunci: *Saccharomyces boulardii*, *Lactobacillus plantarum* Dad-13, Varietas ubi kayu, tapai probiotik.

**THE ADDITIONAL EFFECT OF *Lactobacillus plantarum* Dad-13 AND
Saccharomyces boulardii ON PHYSICAL, CHEMICAL PROPERTIES, AND
PREFERENCE LEVEL OF PROBIOTIC CASSAVA (*Manihot esculenta*)
TAPAI**

ABSTRACT

Cassava can be processed into tapai. In general, cassava tapai is made with the addition of tapai yeast. Probiotic foods have recently become a trend as functional food, therefore in this study *Lactobacillus plantarum* Dad-13 and *Saccharomyces boulardii* were added to produce probiotic tapai. The purpose of the study was to determine the effect of the type of addition of inoculum and varieties of cassava on the chemical, physical, number of probiotics, and the level of preference of the probiotic cassava tapai.

This study used a completely randomized design with a factorial pattern with the addition of inoculum types and cassava varieties. The first factor is the type of inoculum used are the NKL, *Saccharomyces boulardii*, and *Lactobacillus plantarum* Dad-13, while the second factor is the cassava variety used types of yellow (butter) and white (meni). The analysis includes pH, water content, total sugar and alcohol content, color, number of lactic acid bacteria (LAB), and yeast. Test antioxidant activity and level of preference. The data obtained were analyzed using the Analysis of Variance One Way and if there were differences between treatments, it was continued with Duncan's Multiple Range Test with a significant level of 0.05.

The results showed that the type of inoculum and varieties of cassava affected on pH, water content, total sugar and alcohol content, physical properties (color), the amount of LAB and yeast, antioxidant activity, and the level of preference of the probiotic tapai cassava produced. The probiotic tapai preferred by the panelists was the yellow cassava tapai added with NKL inoculum and both types of probiotics had a pH value of 5.65, water content 57.88%, antioxidant activity 90% RSA, total sugar 14.99%, alcohol content 3.38%, color lightness 54.97, redness 1.95, yellowness 20.28, total BAL 6.3×10^8 CFU/g, and total yeast 6.3×10^7 CFU/g.

Keyword : *Saccharomyces boulardii*, *Lactobacillus plantarum* Dad-13, cassava variety, probiotic tapai