

**EVALUASI SIFAT FISIKOKIMIAWI & SENSORIS CIDER  
APEL MALANG & MANALAGI MENGGUNAKAN  
KULTUR SACCHAROMYCES CEREVICEAE &  
SACCHAROMYCES UVARUM**

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EVALUATION OF PHYSICOCHEMICAL & SENSORY CHARACTERISTICS OF  
APPLE CIDER MADE FROM MALANG & MANALAGI VARIETIES USING  
SACCHAROMYCES CEREVICEAE & SACCHAROMYCES UVARUM CULTURE

**SKRIPSI**

Diajukan untuk memenuhi sebagian syarat – syarat guna memperoleh gelar  
Sarjana Teknologi Pangan

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**2005**

**JURUSAN TEKNOLOGI PANGAN  
FAKULTAS TEKNOLOGI PERTANIAN  
UNIVERSITAS KATOLIK SOEGIJAPRANATA  
SEMARANG**

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## RINGKASAN

Cider apel merupakan minuman fermentasi dari sari buah apel. Dalam penelitian ini digunakan 2 jenis apel yang berbeda yaitu jenis apel Malang dan apel Manalagi. Selain itu, juga digunakan dua jenis yeast yang berbeda yaitu *Saccharomyces cereviceae* dan *Saccharomyces uvarum* dengan waktu fermentasi 8 hari menggunakan fermentasi diam. Penelitian ini bertujuan untuk mengetahui jenis apel dan yeast yang memberikan kualitas terbaik pada cider apel berdasarkan analisa kimia, fisik, dan sensoris. Parameter yang dilakukan adalah analisa pH, kadar gula, kadar alcohol, kekeruhan, warna serta kadar tanin yang terkandung dalam cider apel. Berdasarkan hasil analisa kimia terhadap pH adalah terjadi penurunan pH pada akhir fermentasi dimana nilai awal pH berkisar 3.85 menjadi 2.65-3.70. Sedangkan pada kadar gula mengalami penurunan dari kadar gula awal 15 ° Brix menjadi 9° Brix -11° Brix karena kadar gula ini dipakai untuk menghasilkan alcohol sehingga kadar alcohol dalam penelitian ini terjadi peningkatan pada akhir fermentasi mencapai 4-6%. Pada analisa kekeruhan terjadi penurunan absorbansi hingga mencapai 0.13-0.15. Kemudian pada analisa warna dan tanin akan terjadi peningkatan. Peningkatan kadar tanin ini terjadi dengan nilai awal berkisar antara 541.33 mg tanin / lt menjadi 578.67 mg tanin / lt. Berdasarkan analisa sensoris dari 30 responden tidak terlatih maka didapatkan 36.67 % responden menyukai produk cider apel Manalagi *Saccharomyces cereviceae*.



## SUMMARY

Apple cider is a fermented beverage from apple juice. In this research, two kinds of apple, that is Malang apple and Manalagi apple, were used as the samples. Besides that, there are two kinds of different yeast, *Saccharomyces cereviceae* dan *Saccharomyces uvarum*, that were used for this research with fermentation time for 8 days using static fermentation. This research was carried out with the purpose to know what type of apple and yeast that gives the best quality of cider apple based on its chemical, physic, and sensory analysis. The parameter that were used in determining this cider quality were acidity, sucrose and alcohol content, turbidity, colour, and also tannin content within the apple cider. From the chemical analysis result on acidity, there was a decreased pH value in the end of fermentation in which the initial pH value approximately 3.85 and reach 3.62 in the end of the process, although there are some increased value during the process. Moreover, for the sucrose content, there was a decreased value for all treatment from the initial point of 15<sup>o</sup>Brix to 9<sup>o</sup>Brix-11<sup>o</sup>Brix. Because this sucrose content was used to produce alcohol, the alcohol content in this research is increased from time to time, and reach it's maximum value at the seventh day. This increasing value of the alcohol content in the end of fermentation reach 4-6% from it's initial content. In turbidity analysis, there was a decreased value of absorbance from For the colour and tannin content analysis, there was an increased value. The increased value of tannin content occured with initial value approximately 541.33 mg tannin / lt to 578.67 mg tannin / lt. From the sensory analysis, there were 36.67% panelist that like the cider product using Manalagi apple with *Saccharomyces cereviceae* yeast. This analysis were carried out using 30 common panelist.