

ABSTRAK

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KAJIAN PUSTAKA: METODE DAN CARA PENURUNAN KADAR ALKOHOL PADA *WINE* DAN *FRUITWINE*

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(xiii + 60 halaman; 5 gambar; 12 tabel; 1 lampiran)

Wine adalah minuman beralkohol hasil fermentasi sari buah yang telah lama dikenal oleh masyarakat. *Wine* rendah alkohol adalah *wine* dengan kadar alkohol <10,5% (v/v) yang diketahui memiliki manfaat bagi kesehatan dan memiliki sensori yang baik. *Wine* rendah alkohol dihasilkan dengan teknik dealkoholisasi yang terdiri atas teknik *viticultural*, *pre-fermentation*, *fermentation*, dan *post-fermentation*. Peningkatan konsumsi dan popularitas *wine* rendah alkohol, keunggulan, dan dampak positif mengonsumsi *wine* rendah alkohol mengharuskan industri *wine* untuk menemukan teknik dealkoholisasi yang tepat. Tujuan dari kajian pustaka ini adalah mengkaji, menganalisis, dan membandingkan berbagai cara penurunan kadar alkohol pada *wine* dan *fruitwine* serta pengaruhnya terhadap karakteristik produk akhir. Metode *membrane process*, yaitu *reverse osmosis* dan *osmotic distillation* dapat menurunkan kadar alkohol hingga $\pm 5\%$ (v/v), sedangkan teknik *High Power Ultrasound* dapat menurunkan kadar alkohol sebanyak 15% lebih rendah dari kontrol. Penggunaan beberapa khamir *non-Saccharomyces* dilanjutkan dengan *S. cerevisiae* dan penggunaan *kefir culture* berpotensi menghasilkan *wine* rendah alkohol yang disukai oleh panelis. Pencampuran bahan baku dapat menurunkan kadar alkohol, namun tergantung dari bahan baku yang digunakan dan perlakuan yang dilakukan. Peningkatan suhu, aerasi, dan SO₂ dapat menurunkan kadar alkohol, sedangkan lama fermentasi meningkatkan kadar alkohol. Penggunaan *kefir culture* dan khamir *non-Saccharomyces*, *M. pulcherrima*, terpilih sebagai cara penurunan kadar alkohol yang menghasilkan *wine* dan *fruitwine* dengan karakteristik terbaik.

Kata kunci : alkohol, dealkoholisasi, *fruitwine*, *wine*, *wine* rendah alkohol

Referensi : 66 (2011-2021)

ABSTRACT

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LITERATURE REVIEW: METHODS OF REDUCING ALCOHOL LEVELS IN WINE AND FRUITWINE

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Wine is a fermented alcoholic beverage from fruit juice that has been known to the public for a long time. Low alcohol wine is wine with an alcohol content of <10,5% (v/v) which is known to have health benefits and has good sensory properties. Low alcohol wine is produced by a dealcoholization technique consisting of viticultural, pre-fermentation, fermentation, and post fermentation techniques. The increasing consumption and popularity of low alcohol wine, the advantages, and the health benefits of consuming low alcohol wine require the wine industry to find appropriate dealcoholization techniques. The purpose of this literature review was to study, analyze, and compare various ways to reduce alcohol levels in wine and fruitwine as well as their effects on the characteristics of the final product. The membrane process method, namely reverse osmosis and osmotic distillation, can reduce the alcohol content up to $\pm 5\%$ (v/v), while the High Power Ultrasound technique can reduce the alcohol content by 15% lower than control. The use of several non-*Saccharomyces* yeasts followed by *S. cerevisiae* and the use of kefir culture have the potential to produce low alcohol wine that are favored by the panelists. Mixing raw materials can reduce the alcohol content, but it depends on the raw materials used and the treatment carried out in the study. Increasing temperature, aeration, and SO₂ can reduce the alcohol content, while fermentation time increases the alcohol content. The use of kefir culture and non-*Saccharomyces* yeast, *M. pulcherrima*, was chosen as the best way to reduce alcohol content that based on characteristics of wine and fruitwine obtained.

Keywords : alcohol, dealcoholization, fruitwine, low alcohol wine, wine

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