

## BIBLIOGRAPHY

- Azevedo, J., Lopes, P., Mateus, N., & Freitas, V. D. (2022). Cork, a Natural Choice to Wine? *Foods*, 11(17). <https://doi.org/10.3390/foods11172638>
- Carpena, M., Pereira, A. G., Prieto, M. A., & Gandara, J. S. (2020). Wine Aging Technology: Fundamental Role of Wood Barrels. *Foods*, 9(9). <https://doi.org/10.3390/foods9091160>
- Comitini, F., Agarbat, A., Canonico, L., & Ciani, M. (2021). Yeast Interactions and Molecular Mechanisms in Wine Fermentation: A Comprehensive Review. *Journal of Molecular Sciences*, 22(14). <https://doi.org/10.3390/ijms22147754>
- Crumpton, M., Rice, C. J., Atkinson, A., Taylor, G., & Marangon, M. (2018). The Effect of Sucrose Addition at Dosage Stage on The Foam Attributes of a Bottle-Fermented English Sparkling Wine. *Journal of the Science of Food and Agriculture*, 98(3). <https://doi.org/10.1002/jsfa.8570>
- Echave, J., Barral, M., Corral, M. F., Prieto, M. A., & Gandara, J. S. (2021). Bottle Aging and Storage of Wines: A Review. *Journal Molecules*, 26(3). <https://doi.org/10.3390/molecules26030713>
- Ferrara, C., Zigarelli, V., & Feo, G. D. (2020). Attitudes of a Sample of Consumers Towards More Sustainable Wine Packaging Alternatives. *Journal of Cleaner Production*, 271(3). <https://doi.org/10.1016/j.jclepro.2020.122581>
- Frediansyah, A., Romadhoni, F., Suryani, Nurhayati, R., & Wibowo, A. T. (2021). Fermentation of Jamaican Cherries Juice Using Lactobacillus plantarum Elevates Antioxidant Potential and Inhibitory Activity against Type II Diabetes-Related Enzymes. *Jurnal Molecules*, 26(10). <https://doi.org/10.3390/molecules26102868>
- Gnilomedova, N. V., & Anikina, N. S. (2018). Profile of Sugars in a GrapeWine System as The Identifying Indicator of the Authenticity of Wine Products. *Jurnal Foods and Raw Materials*, 6(1). <https://doi.org/10.21603/2308-4057-2018-1-191-200>.
- Maicas, S. (2020). The Role of Yeasts in Fermentation Processes. *Jurnal Microorganisms*, 8(8). <https://doi.org/10.3390/microorganisms8081142>
- Miller, K. V., & Block, D. E. (2020). A review of wine fermentation process modeling. *Journal of Food Engineering*, 273. <https://doi.org/10.1016/j.jfoodeng.2019.109783>

- Nurholis, N., & Saleh, I. (2019). Hubungan Karakteristik Morfofisiologi Tanaman Kersen (*Muntingia Calabura*). *Jurnal Agroekoteknologi*, 12(2). <https://doi.org/10.21107/agrovigor.v12i2.5418>
- Patil, P. S., Deshannavar, U. B., Ramasamy, M., & Emani, S. (2021). Production, Optimization, and Characterization of Sugarcane (*Saccharum Officinarum*)–Papaya (*Carica Papaya*) Wine Using *Saccharomyces Cerevisiae*. *Jurnal Environmental Technology & Innovation*, 21. <https://doi.org/10.1016/j.eti.2020.101290>
- Sirait, M. (2020). Studi Life Cycle Assessment Produksi Gula Tebu: Studi Kasus di Jawa Timur. *Journal of Science and Technology*, 13(2). <https://doi.org/10.21107/rekayasa.v13i2.5915>
- Wiratnaya, I. N., Rinala, I. N., & Darmawan, I. W. A. (2019). Karakteristik Wine Salak yang di Produksi di Kabupaten Karangasem dan Kabupaten Tabanan. *Jurnal Gastronomi*, 7(1). <https://doi.org/10.52352/jgi.v7i1.385>
- Witrick, K. a. T., Pitts, E. R., Nemenyi, J. L., & Budner, D. (2021). The Impact Packaging Type Has on the Flavor of Wine. *Beverages*, 7(2). <https://doi.org/10.3390/beverages7020036>
- Wyk, N. V., Grossmann, M., Wendland, J., Wallbrunn, C. V., & Pretorius, I. S. (2019). The Whiff of Wine Yeast Innovation: Strategies for Enhancing Aroma Production by Yeast during Wine Fermentation. *Journal of Agricultural and Food Chemistry*, 67(49). <https://doi.org/10.1021/acs.jafc.9b06191>
- Yang, H., Cai, G., Lu, J., & Plaza, E. G. (2020). The Production and Application of Enzymes Related to The Quality of Fruit Wine. *Jurnal Food Science and Nutrition*, 61(10). <https://doi.org/10.1080/10408398.2020.1763251>
- Zilelidou, E. A., & Nisiotou, A. (2021). Understanding Wine through Yeast Interactions. *Jurnal Microorganisms*, 9(8). <https://doi.org/10.3390/microorganisms9081620>

## APPENDIX

### 1. Approval Sensory



Akademi Kuliner & Patiseri  
**OTTIMMO**  
INTERNASIONAL  
CULINARY ARTS - GASTRONOMY - BAKING & PATISSERIE ARTS

### CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT SENSORY TEST

**DATE** : 5 May 2023  
**NAME** : Matthew Sebastian Dwi Putra  
**NIM** : 2174130010021  
**PRODUCT** : Kersen wine  
**ADVISOR** : Jessica Hartan, A.Md.Par.

PANELIST	SIGHT	SMELL	TEXTURE	TASTE	TOTAL
Panelist 1	✓	✓	✓	✓	✓
Panelist 2	✓	✓	✓	✓	✓
Panelist 3	✓	✓	✓	✓	✓
Panelist 4	✓	✓	✓	X	✓
Panelist 5	✓	✓	✓	X	✓
Panelist 6	✓	✓	✓	X	✓
Panelist 7	✓	✓	✓	X	✓
Panelist 8	✓	✓	✓	X	✓
Panelist 9	✓	✓	✓	X	✓
Panelist 10	✓	✓	✓	X	✓

#### NOTES :

- Kandungan alkohol terlalu strong. Bitter aftertaste.



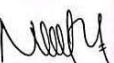
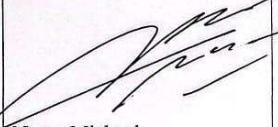
## 2. Approval Recipes

Recipe Name : Fruit Wine  
TITLE OF C&D : THE MAKING OF WINE BASED ON KERSEN FRUIT USING THE FERMENTATION METHOD  
Yield : 500 ML  
Main Ingredients : Kersen Fruit  
Ingredients :  
– 50 Gr Sugar  
– 0,2 Gr Yeast  
– 500 Ml Drink Water  
– 150 Gr Kersen Fruit  
  
Equipment :  
– Knife  
– Cutting Board  
– Sauce Pan  
– Scales  
– Bowl  
– Bottle  
– Funnel  
– Silicone Cap  
– Airlock  
– Strainer  
– Cheese Cloth  
  
Method :  
1. Sanitize all equipment before use.  
2. Wash your fruit and cut into 2 pieces.  
3. Put the fruit into the sauce pan and don't turn the heat up yet.  
4. Pour 500ml of water into sauce pan and make sure the fruit is soaked.  
5. Turn the heat up for medium heat and infuse the water for about 10 – 12 minutes.  
6. Don't forget to close the pan while infusing the water.

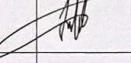
## RECIPE BACKGROUND

Indonesian wine production is still relatively small. And there are still many wines imported from other countries. Kersen fruit is an excellent source of carbohydrates that can be used for ethanol production through fermentation. In Indonesia, the utilization of kersen fruit is still not optimal because it is considered to have no economic value and lack of knowledge about its utilization, even though this fruit has high benefits. Tidak banyak orang yang tahu mengenai buah kersen. Buah kersen jarang ditemukan oleh orang-orang karena buah ini termasuk buah yang langka, dan tumbuhannya hanya terdapat di beberapa tempat. Oleh karena itu, saya memanfaatkan buah kersen ini sebagai bahan untuk pembuatan wine, dengan harapan agar pemanfaatan buah kersen di Indonesia bisa berjalan dengan optimal.

Student Name : Matthew Sebastian Dwi Putra  
NIM : 2174130010021

1 <sup>st</sup> Advisor	2 <sup>nd</sup> Advisor	3 <sup>rd</sup> Advisor
 Name: Jessica Hartan, A.md.Par. Date:	 Name:Novi Indah Permata Sari, S.T.,M.Sc Date:	 Name:Michael Valent,A.Md.Par. Date:

### 3. Consultation Form

	<p>Akademi Kuliner &amp; Patiseri  <b>OTTIMO</b>          INTERNASIONAL</p>	<p align="center"><b>CONSULTATION FORM</b>  <b>CULINARY INNOVATION AND</b>  <b>NEW PRODUCT DEVELOPMENT</b></p>	
<b>Name</b> ..... Matthew Sebastian Dwi Putra <b>Student Number</b> ..... 21.79.1200.0021 <b>Advisor</b> ..... Jessica Herlina, A.Md.Ps...			
No	Date	Topic Consultation	Name/ Signature
1.	20/4	Pembentukan dan pembahasan produk	
	25/4	Pemilihan produk akhir	
	28/4	Pengembangan bahan Satey	
	7/5	Proses pembuatan konsul	
	10/5	proposal chapter 1-3	
	10/5	produk results	

No	Date	Topic Consultation	Name/ Signature
	12/6	Kondisi nutrisi	
	20/6	Food label	
	28/6	Revisi 1	
	3/7	proposal chapter 4-5	

#### 4. Process Documentation

##### 1. Prepare and wash the Kersen fruit



##### 2. Cut into 2 pieces



3. Boil for about 10 minutes



4. After boiled, wait until room temperature and strain



5. Pour into bottle along with the sugar and yeast, and fermented for about 1 until 2 weeks

