

APPENDIX

Appendix 1. Packaging Design

Vinrange is made from fresh organic orange without any preservative. Vinrange has many health benefits including high in vitamin C and antioxidants.

Vinrange dibuat dari jeruk organik segar tanpa bahan pengawet. Vinrange memiliki banyak manfaat kesehatan termasuk tinggi vitamin C dan antioxidants.

Ingredients: Purified Water, Orange Peel, sugar, Citric Acid, Yeast.
Komposisi: Air Murni, Kulit Jeruk, Gula, Asam Sitrat, Ragi.



VINRANGE
Aromatic Organic Orange Zest Vinegar

NUTRITION FACTS	
Serv. Size 1 Tbsp. (15 ml)	
Serv. per containers about 30	
Calories 0 Calories from fat 0	
*Percent Daily Values (DV) are based on 2000 calorie diet	
Amount/Serving	%DV*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Polyunsaturated Fat 0g	
Monounsaturated Fat 0g	
Total Carbohydrate 0g	0%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 0g	
Sodium 0g	0%
Potassium 0g	0%
Cholesterol 0mg	0%
Vitamin C 44.25%	0.07%
Vitamin A 0%	
Folic Acid 0%	
Iron 0%	
Calcium 0%	

1.72% Acid
100 % FRESH ORANGE
450 ML

Picture. Sticker Label.



Picture. Label on the Bottle.

Appendix 2. Product Logo



Appendix 3. Documentation



Picture. Orange used for trial (left: Sunkist, right: Baby Pacitan).



Picture. Orange peel after washed and peeled.



Picture. Boiling and pasteurizing orange peel.



Picture. The orange peel mixture put inside sterile jar for fermenting.



Picture. Orange mixture after adding citric acid.



Picture. Filtering and pasteurizing process.



Picture. Vinegar Inside the Packaging Bottle.



Picture. Samples of vinegar for laboratory test.



Picture. Equipment used for testing.

KEMENTERIAN KESEHATAN RI
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HASIL ANALISA KIMIA

Nomer : L19001704 / Bhn / V / 2019
 Jenis bahan : 4 (Empat) Contoh Bahan Atas Cuka Jeruk
 Dikirim oleh : HENI ADHIANATA
 Alamat : Surabaya
 Diambil oleh : Yang Bersangkutan
 Diterima di BBLK tgl : 08 Mei 2019

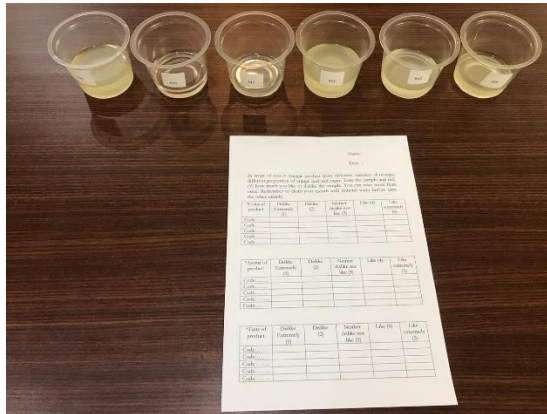
No	PARAMETER	sumkit 63 gula 63 air 630 A	sumkit 126 gula 126 air 630 B	sumkit 126 gula 63 air 630 C	sumkit 63 gula 63 air 630 D
1	pH	4,58	4,29	4,33	4,12
2	Total Asam (%)	1,78	1,42	1,94	1,72
3	Alkohol (%)	0,0	0,0	0,0	0,0
4	Asam Acetat (%)	3,08	2,83	4,68	3,25
5	Vitamin C (%)	48,08	41,86	46,18	44,25
6	Antioksidan (%)	41,77	39,85	53,12	45,04

Perhatian :

- Hasil pemeriksaan ini hanya berlaku untuk contoh diatas
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- Dilarang menggandakan dokumen ini tanpa seijin pihak BBLK Surabaya

17 Mei 2019
 Manajer Teknik,
 Nisa Nurina Valerie, S.Si, M.
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Picture. Test result of the samples.



Picture. Sensory test set for volunteer.



Picture. Sensory test process.

Name : Evan

Date : 21-3-2019

In front of you is vinegar product from different varieties of orange, different proportion of orange peel and sugar. Taste the sample and tick (✓) how much you like or dislike the sample. You can taste more than once. Remember to clean your mouth with mineral water before taste the other sample.

*Color of product	Dislike Extremely (1)	Dislike (2)	Neither dislike nor like (3)	Like (4)	Like extremely (5)
Code..147..				✓	
Code..325..				✓	
Code..512..				✓	
Code..631..				✓	
Code..725..				✓	
812				✓	

*Aroma of product	Dislike Extremely (1)	Dislike (2)	Neither dislike nor like (3)	Like (4)	Like extremely (5)
Code..147..				✓	
Code..325..				✓	
Code..512..				✓	
Code..631..			✓		
Code..725..				✓	
812				✓	

*Taste of product	Dislike Extremely (1)	Dislike (2)	Neither dislike nor like (3)	Like (4)	Like extremely (5)
Code..147..	(Pahit)	✓			
Code..325..	(Pahit)	✓			
Code..512..	(Kuatany asam)		✓		
Code..631..	(Kantol)		✓		
Code..725..	(Kuatany asam)		✓		
812	(Kuatany asam)		✓		

Picture. Example of sensory test form.



VINRANGE
Aromatic Organic Orange Zest Vinegar

VINRANGE

Aromatic Organic Orange Zest Vinegar

By: Evan



OTTIMMO

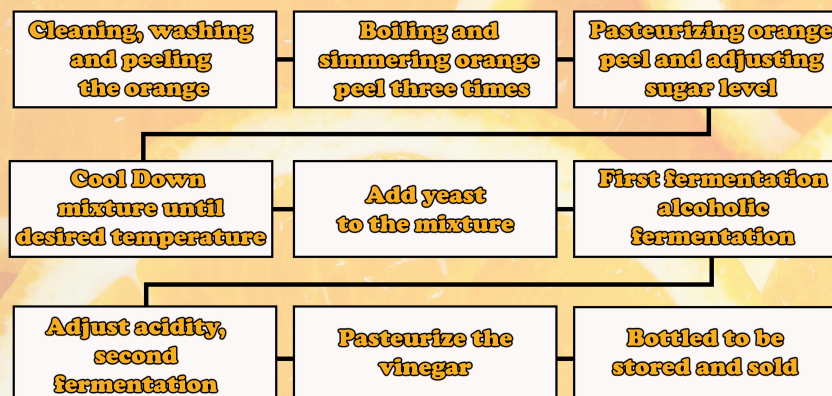
ABSTRACT

Vinrange is a healthy vinegar product that is made from orange peel. It contains vitamin C and antioxidants. Vitamin C and antioxidants play important role in defecating the body from free radical. Vinrange uses double step fermentation to produce vinegar, starting from fermenting carbohydrate from orange peel to fermenting alcohol into acetic acid.

BACKGROUND

Vinegar has been used since ancient civilization of the Babylonians around 3000 B.C. Vinegar also has it health benefits like lowering blood pressure. Orange peel is used because its health benefits because the vitamin C and flavonoids contents in it.

PROCESSING METHOD



CONCLUSION

Vinrange is a vinegar product with health benefits. Today, a lot of people are changing their lifestyle into a healthy lifestyle. Vinrange might be just the right product for them. The test conducted has proven that Vinrange has 44.25 % of vitamin C and 45.04% of antioxidants. The good nutrients inside the products could affect the people who consume it, directly or indirectly



NUTRITION FACTS

Amount/Serving	%DV*
Serv. Size 1 Tbsp. (15 ml)	
Serv. per containers about 30	
Calories 0 Calories from fat 0	
*Percent daily values (DV) are based on 2000 calorie diet	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Polyunsaturated Fat 0g	
Monounsaturated Fat 0g	
Total Carbohydrate 0g	0%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 0g	
Sodium 0g	0%
Potassium 0g	0%
Cholesterol 0mg	0%
Vitamin C 44.25%	0.07%
Vitamin A 0%	
Folic Acid 0%	
Iron 0%	
Calcium 0%	

Advisor : Heni Adhianata, S.TP., M. Sc
Examiner I : Dr. Ir. Fadjar Kurnia Hartati, M.P

Examiner II : Chef Ryan Yeremia Iskandar
Examiner III : Chef Kresna Bayu Pranata



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**FORM CONSULTATION
RESEARCH AND DEVELOPMENT
FINAL PROJECT**

Name :

Student Number

Class :

**STUDY PROGRAM OF CULINARY ART
OTTIMMO INTERNATIONAL
MASTERGOURMET ACADEMY
SURABAYA**

No	Date	Topic Consultation	Name/ Signature
1	28/1- 2019	Revised Table of contents	AC Alary
2	31/1- 2019	Title of recipe card steps	AC Alary
3	7/2- 2019	Recipe Approval	AC Alary
4	12/2- 2019	Recipe Revision	AC Alary
5	16/2- 2019	Final Trial	AC Alary
6	27/2- 2019	Second stage formulation (CI)	AC Alary
7	21/3- 2019	Sensory test	AC Alary

No	Date	Topic Consultation	Name/ Signature
8	29/3- 2019	pH - Analysis	AC Alary
9	4/4- 2019	Second trial	AC Alary
10	6/6- 2019	Report Consultation	AC Alary
11	2/7- 2019	Trial Consultation	AC Alary
12	24/7- 2019	Report Consultation	AC Alary
13	26/7- 2019	Report Consultation	AC Alary
14	8/8- 2019	Report Consultation	AC Alary



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INTERNASIONAL
CULINARY ARTS - GASTRONOMY - BAKING & PASTRY ARTS

NAME : EVAN
STUDENT ID : 1774130010030
CLASS : MARZIPAN




TITLE : PRODUCTION OF AROMATIC ORGANIC ORANGE ZEST VINEGAR WITH DOUBLE STEPS FERMENTATION

INGREDIENTS :

- 100 gr of orange zest (though the breed of the orange may vary)
- 1 gr of yeast *Saccharomyces cerevisiae* (ratio 1 gr/L) as fermentation starter
- Sugar (ratio 120 gr/L)
- Pure Lemon and lime extract (the amount will be decided after trial)
- 1 litre of water

STEPS :

1. Wash and then peel the skin of the orange.
2. Put in the peel to a litre of water inside saucepan.
3. Pasteurize the mixture at 70 degree Celsius for 15 minutes and make sure all the sugar has dissolved.
4. Put the mixture inside sterile jar and chill the mixture until it reaches 40 degree Celsius and add appropriate amount of yeast *Saccharomyces cerevisiae* into the mixture.
5. Fermentation process: Ferment the mixture for 12 days inside the jar at room temperature (first step fermentation).
6. 2nd step Fermentation (acetic fermentation): Add 5% of pure Lemon and lime extract every 5 days into the mixture and ferment for 12 days to produce secondary metabolites.
7. Pasteurize the fermented mixture at 75 degree Celsius for 15 minutes to stop the fermentation process.
8. Put inside sterile jar and done.

APPROVAL BY ADVISOR	APPROVAL BY LIBRARIAN	APPROVAL BY DIRECTOR ACADEMY
DATE: 18 February 2019 	DATE: 18 February 2019  SEKAR	DATE: 

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