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APPENDIX

1. Approved Recipe

CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

APPROVAL RECIPE

Recipe Name	: Butterfly Pea Flower And Lychee Kombucha
TITLE OF C&D	: UTILIZATION OF BUTTERFLY PEA TEA AND LYCHEE INTO KOMBUCHA FOR HEALTH BENEFITS
Yield	: 1,5 Liter
Main Ingredients	: Kombucha starter
Ingredients	:

- 10 gr dry butterfly pea flower
- 10 gr Black Tea
- 300 ml Kombucha Starter
- 200 gr scooby
- 300 gr granulated sugar
- 300gr lychee
- 1lt water

Method :

Step 1 (First Fermentation)

1. Prepare a pot, add 1 liter of water and 10 grams of butterfly pea tea and 10 grams black tea. Bring to a boil.
2. Once boiling, add 300 grams of sugar and stir until completely dissolved.
3. Let the butterfly pea tea cool down completely to room temperature.
4. While waiting, sterilize a glass jar by soaking it in warm water for a few minutes. Then dry it thoroughly.
5. Once the tea is cool, pour it into the sterilized glass jar.
6. Add 500 ml of kombucha starter tea and 1 SCOBY to the jar.
7. Cover the jar with a thin cloth and secure it with a rubber band

Ferment for 5 days in a cool, dark place (away from direct sunlight).

Step 2: Second Fermentation (with Lychee)

1. Peel the lychees and remove the seeds.
2. Weigh 300 grams of lychee flesh, then set aside.
3. Sterilize a glass bottle by soaking it in warm water, then dry thoroughly.
4. Add the 300 grams of chopped lychee into the bottle.
5. Pour in 1 liter of 5-day fermented kombucha.
6. Gently stir with a wooden spoon (avoid metal utensils).
7. Seal the bottle tightly.
8. Ferment for another 3 days to allow carbonation and flavor development

PRODUCT DESCRIPTION

Butterfly Pea Lychee Kombucha is a naturally fermented drink that combines the beautiful blue hue of butterfly pea flowers with the sweet and refreshing taste of lychee. Naturally brewed through fermentation, this beverage is rich in probiotics that support digestive health and boost the immune system

PURPOSE OF PRODUCTION :

1. Offer a Healthy and Natural Beverage:

The main goal of this product is to provide a refreshing drink that is both nutritious and free from artificial additives. Kombucha is rich in natural probiotics, which support digestive health and strengthen the immune system.

1. Promote the Use of Local Ingredients:

This product highlights the potential of locally sourced ingredients such as butterfly pea flowers and lychee. By using these natural resources, the product adds value to local agricultural products through innovation in healthy beverages.

2. Encourage a Healthy Lifestyle:

Through this kombucha, we aim to raise awareness about the benefits of fermented foods and natural probiotic consumption, encouraging consumers to choose drinks that support their overall well-being.

3. Support Eco-Friendly and Sustainable Living:

The kombucha is made without artificial preservatives or colorants and is packaged in reusable glass bottles, aligning with environmentally conscious and sustainable consumption trends.

PRODUCT ADVANTAGES

1. Rich in Natural Probiotics

Supports gut health, improves digestion, and strengthens the immune system through naturally occurring probiotics from the fermentation process.

2. High in Antioxidants

Butterfly pea flowers are packed with anthocyanins, while lychee contains vitamin C both help fight free radicals, reduce inflammation, and support skin health.

3. Naturally Caffeine-Free & Low in Sugar

Unlike black or green tea-based kombucha, butterfly pea tea is naturally caffeine free, making it suitable for all ages and those sensitive to caffeine.

4. Beautiful Natural Color

The vibrant blue color from butterfly pea is 100% natural and visually appealing, offering a unique aesthetic without artificial coloring.

5. Refreshing Taste Profile

Combines floral and fruity notes for a light, smooth flavor not too sour, not too sweet perfect for daily hydration or a health-conscious refreshment.

6. Locally Sourced Ingredients

Promotes the use of local agricultural products like butterfly pea and lychee, supporting local farmers and communities.

TRIAL PROGRESS

The fermentation process of kombucha using butterfly pea tea as the base and the addition of lychee has shown positive results in this trial. The first fermentation, carried out over 5 days, successfully reduced sugar content and developed a balanced light acidity. The original blue color of the butterfly pea tea gradually shifted to a purple hue as the pH decreased.

The second fermentation, lasting 3 days with the addition of lychee, contributed a distinctive fruity aroma and flavor while naturally increasing carbonation. The beverage's color became brighter (purplish-pink), offering a fresh, light, and visually appealing appearance.

After the second fermentation, the product was refrigerated to halt the fermentation process and preserve flavor quality. The final kombucha exhibits well-balanced sensory characteristics: refreshing acidity, a harmonious blend of floral and fruity aromas, and an attractive appearance.

This kombucha has strong potential to be developed as a unique and refreshing functional beverage product.

First fermentation

second fermentation

CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

Student Name : Atita Reza Nabillah

NIM 2374130010041

Advisor	1st Examiner	2nd Examiner
		
Name: Ms. Novi Indah Permata Sari, S.T., M.Sc Date:	Name: Mr. Filias Kusuma, S.E., M.M Date:	Name: Chef Anthony Sucipto, A.Md. Par Date:

2. Approved Sensory

AKADEMI KULINER & PATISERI
OTTIMMO INTERNASIONAL

CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT
SENSORY TEST

DATE : 24 Juni 2025

NAME : Atita Reza Nabillah

NIM : 2374130010041

PRODUCT : UTILIZATION OF BUTTERFLY PEA TEA AND LYCHEE INTO KOMBUCHA FOR HEALTH BENEFITS

ADVISOR : Novi Indah Permata Sari, S.T., M.Sc.

PANELIST	SIGHT	SMELL	TEXTURE	TASTE	OVERALL	TOTAL
Panelist 1	4	3	4	4	4	19
Panelist 2	5	4	5	5	5	24
Panelist 3	4	3	4	4	4	19
Panelist 4	4	4	4	4	4	20
Panelist 5	4	3	4	3	3	17
Panelist 6	4	4	3	3	4	18
Panelist 7	4	4	4	1	3	16
Panelist 8	4	3	4	3	4	18
Panelist 9	5	3	4	4	4	20
Panelist 10	4	2	3	2	3	14
TOTAL	42	33	39	33	38	**185**

NOTES :

1. Rasanya strong, manisnya pas, aroma tidak terlalu mengganggu
2. Sudah baik, dan layak d konsumsi
3. Warna cantik, rasa enak
4. –
5. Baunya agak aneh dan rasanya kaya ada sodanya
6. –
7. it tastes like pickles
8. all good
9. Ok
10. too sour

APPROVED

3. Consultation Form

Akademi Kuliner & Patiseri
OTTIMO
INTERNASIONAL

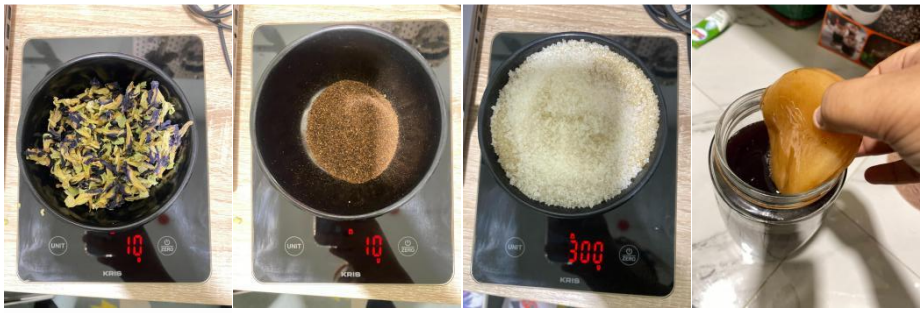
CONSULTATION FORM
CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

Name : ATTA REZA NABILLAH
Student Number : 23741300100 41
Advisor : Ms. Novi Indah Permata Sari, S.T., M.Sc.

No	Date	Topic Consultation	Name/ Signature	Advisor Signature
1	Selasa, 08/04/25	Konsultasi Produk (meminta saran Produk)		
2	Minggu, 28/5/25	Konsultasi Produk (Konsultasi kombucha citrus Butterfly pea tea)		
3	Senin, 14/4/25	Konfirmasi trial Kombucha citrus Butterfly pea tea		
4	Senin, 19/5/25	Ganti produk ke Kombucha Lychee Butterfly pea tea		
5	Selasa, 24/6/25	Sensori test (kombucha lychee Butterfly pea tea		
6	Selasa 7/10/25	Konsultasi Proposal		
7	22/10/25	Konsultasi proposal.		
8	Selasa 24/6/25	Sensori test (kombucha lychee butterfly pea tea)		

4. Systematic Process Documentation

1) Ingridients of butterfly pea tea and lychee kombucha



2) Boil the water, butterfly pea tea and blacktea

3) Sterilize the bottle

4) Put the solution into the bottle

5) Added sugar

6) Added starter of kombucha

7) Added scooby

8) First termentation

9) Chopped lychee

10) Second fermentation