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APPENDIX

1. Sensory Test



Akademi Kuliner & Patiseri
OTTIMMO
INTERNASIONAL

CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT SENSORY TEST

DATE : 16 April 2024
NAME : Grace Evania Sandjojo
NIM : 2274130010073
PRODUCT : UTILIZATION OF RED KIDNEY BEAN AS SOY-FREE ALTERNATIVES IN NATTO
ADVISOR : Jessica Hartan, A.Md. Par.

PANELIST	SIGHT	SMELL	TEXTURE	TASTE	OVERALL	TOTAL
Panelist 1	4	4	4	4	4	20
Panelist 2	5	3	5	5	5	23
Panelist 3	4	2	4	4	3	17
Panelist 4	4	4	5	5	5	23
Panelist 5	2	4	4	4	4	18
Panelist 6	4	4	4	4	5	21
Panelist 7	4	3	2	4	4	17
Panelist 8	4	2	4	2	2	14
Panelist 9	2	2	4	4	4	16
Panelist 10	4	2	4	4	3	17
TOTAL	37	30	40	40	39	186

NOTES :

1. Mild taste, in a good way. Try to ferment it longer.
2. Topping norinya sangat mengupgrade rasanya
3. -
4. Good job
5. Interesting mixture.. If eating natto alone no so nice, but if mixed with the toppings its better
6. So far pleasing taste. Not as strong as regular nato
7. Nattonya masih seperti rasa kacang merah pada umumnya. Hanya bedanya berlendir. Lumayan dapat diterima kalau dimakan dengan honey
8. Baunya terlalu kuat
9. Rasa nato adli yg pahit tertutup sama rasa sausnya. Bisa jadi solusi untuk orang yg tidak suka nato original
10. Sudah cukup bagus, namun tekstur red beannya masih cukup keras



2. Resep Asli



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

APPROVAL RECIPEE

Recipe Name : RED KIDNEY BEAN NATTO WITH RED KIDNEY BEAN FURIKAKE

TITLE OF C&D : UTILIZATION OF RED KIDNEY BEAN AS SOY-FREE ALTERNATIVES IN NATTO

Yield : 10 portion

Main Ingredients : 450 gr red kidney bean

Ingredients :

- 450 gr red kidney bean
- 1 gr natto starter

Condiments

- Soy sauce 2 gr
- Mustard 1gr

Furikake

- Konbu 50 gr
- Bonito flakes 25 gr
- Redbean 30 gr
- Nori sheet 21x19cm (1 pcs)
- Sesame seed 10gr
- Sugar 30gr
- Mirin 30gr
- Rice vinegar 30gr
- Soy sauce 60gr
- Water 15gr



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Method :

Red kidney bean natto:

1. Wash the red kidney bean 2 times until all the impurities are gone
2. Soak the beans in water and let it sit for 12 hours
3. Strain the excess water
4. Boil the beans for 30 minutes until soft
5. Strain the excess water and let it cool down in paper towel
6. While waiting for the natto to cool down, sterilize the utensil needed
7. Boil water and add all the utensils
8. Let it boil until it reaches 120 C then take out the utensil and let it dry
9. Mix 1 gr natto starter with 10 gr water
10. Add the natto starter mix into the red kidney beans and mix slowly
11. Cover the natto with plastic directly on the surface
12. Place the natto in yogurt machine for 24 hours in 40 C
13. The finished natto need to be put inside the fridge for another 24 hours to mature

Red kidney bean furikake:

1. Mash the beans for the furikake with strainer
2. Mix the sugar 15gr and soysauce 30gr
3. Spread the red bean mixture and dry it in the dehydrator for 16 hours in 60C
4. Blend the dry redbean until becomes a seasoning powder
5. Soak the konbu until soft and pat dry
6. Chop thinly the konbu
7. Toast the sesame seed
8. Toast the nori sheet in a pan and break it into pieces
9. Put leftover sugar, soysauce, rice vinegar, water, mirin and chopped konbu into a pan
10. Stir until reduced 70% then add the bonito flakes
11. Stir until all the liquid evaporated
12. Mix redbean seasoning, konbu bonito, sesame seed and nori together.



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

Product Description

Delight your taste buds with the distinctive umami taste of fermented red bean, complemented by a subtle nuttiness and a hint of earthiness. Packed with high value nutrients, including protein, fiber which promotes healthy bowel movement, high in vitamins, and probiotics. Natto also improve cardiovascular health for known high in vitamin K2. This red bean natto has less tangy and less pungent taste compared to the soybean natto, making it more palatable for Indonesian tastebuds

TRIAL PROGRESS (50 – 100 WORDS)

During the first trial, the bean that were used for making natto is mung bean. When using mung beans, the natto becomes more pungent and unappetizing. The other downside is the natto also becomes dry because lack of moisture inside the yogurt machine. Red bean was used for the second trial. Unlike normal method using steamed soybeans, red bean was boiled until soft. During the fermentation processed, adding water to the bottom rack of the machine can retain moisture. Red bean has lower protein, therefore the chain reaction of glutamic acid doesn't happened as extreme as soybeans.


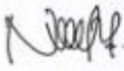
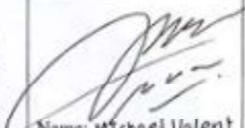
TRIAL DOCUMENTATION






CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

Student Name : Grace Evania
NIM : 2274130010073

Advisor	1 st Examiner	2 nd Examiner
 Name: Jessica Ibrahim Date: 28/05/2024	 Name: Nur Indah P Date: 28/5/2024	 Name: Michael Valent Date: 28/05/2024

3. Consultation Form



Alumnos Katarin & Priscilla
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INTERNACIONAL

CONSULTATION FORM
CULINARY INNOVATION AND
NEW PRODUCT DEVELOPMENT

Name : Grace Evania

Student Number : 2224130010073

Advisor : Jessica Horton

No	Date	Topic Consultation	Name/ Signature	Advisor Signature
1	22/1/24	Consultation product		
2	19/02/24	Product Consultation		
3	23/3/24	Product Testing		
4	27/5/24	Product Testing		
5	14/06/24	Revision		
6	17/08/24	Revision		

No	Date	Topic Consultation	Name/ Signature	Advisor Signature
7	13/08/24	Revision		
8	14/08/24	Revision		
9	15/08/24	Revision		
10	16/09/24	Revision		
11	18/09/24	Revision		
	9/10/24	Checking		



Academi Kuliner & Pariwisata
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**CORRECTION LIST FINAL EXAM
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 DEVELOPMENT**

Date : 01 Oktober
 Time : 16.00-16.30

Name/ NIM : Grace Evania Sandjojo / 2274130010073
 Product : Utilization Of Red Kidney Bean As Soy-Free Alternatives In Natto
 Advisor : Jessica Hartan, A.Md. Par.(19940923 2201 084)

No	Correction List	Page	Approval
1	Check all notes in the report (penulisan)	All	



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**CORRECTION LIST FINAL EXAM
 CULINARY INNOVATION AND NEW PRODUCT
 DEVELOPMENT**

Date : 01 Oktober
 Time : 16.00-16.30

Name/ NIM : Grace Evania Sandjojo / 2274130010073
 Product : Utilization Of Red Kidney Bean As Soy-Free Alternatives In Natto
 Examiner I : Novi Indah Permata Sari, S.T., M.Sc. (19951109 2202 083)

No	Correction List	Page	Approval
1.	jumlah kutipan & Bibliography harus sama.		
2.	Space table 1,0.		
3.	Penulisan gambar (3).		
4.	ketukan nilai antara table gambar gambar / ss.		



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**CORRECTION LIST PROPOSAL EXAM
CULINARY INNOVATION AND NEW PRODUCT
DEVELOPMENT**

Date : 9 September 2021
Time : 16.00-16.30

Name/ NIM : Grace Evania Sandjojo / 2274130010073
Product : Utilization of Red Kidney Bean As Soy-Free Alternatives In Natto
Examiner 1 : Novi Indah Permata Sari, S.T., M.Sc. (19951109 2202 083)

No	Correction List	Page	Approval
1.	References to OLS		
2.	Bibliography		
3.	Format disesuaikan dgn guideline.		



Systematic Process Documentation

1. Washing and soaking red kidney beans



2. Boiling red kidney beans



3. Dehydrating red kidney bean



4. Fermentation of red kidney bean

