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APPENDIX



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT SENSORY TEST

: 20 Mei 2024 DATE NAME : Fellicia Can : 2274130010059

PRODUCT: THE UTILIZATION OF FERMENTED BREADFRUIT FLOUR AS AN

ALTERNATIVE FOR FLOUR-BASED TORTILLA

ADVISOR : Gilbert Yanuar Hadiwirawan, A.Md. Par.

PANELIST	SIGHT	SMELL	TEXTURE	TASTE	OVERALL	TOTAL
Panelist 1	4	5	4	4	4	21
Panelist 2	4	4	4	4	4	20
Panelist 3	4	3	4	4	4	19
Panelist 4	5	5	4	4	4	22
Panelist 5	4	2	4	4	4	18
Panelist 6	3	4	3	3	3	16
Panelist 7	5	4	3	4	4	20
Panelist 8	4	5	4	4	4	21
Panelist 9	5	5	4	4	4	22
Panelist 10	5	4	3	4	4	20
TOTAL	43	41	37	39	39	199

NOTES

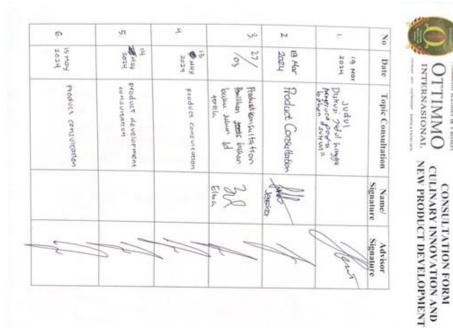
1. Kulit tortila terlalu padat

:

- 2. Enak, dominan rasa keju
- 3. tekturnya sedikit keras cm oke
- 4. all good
- 5. Bau sukun masih kuat
- 6. -7. A bit too dry
- 8. -
- 9. Good
- 10. -



Sensory Test Result Appendix 1



L _p		6	i)	96	43	3	> 4
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Consultation Form Appendix 2

APPROVAL RECIPE

Recipe Name : Breadfruit Tortilla

TITLE OF C&D : The utilization of fermented breadfruit flour as an alternative for flour-

based tortilla.

Yield : 4 portion

Main Ingredients : 300 g Breadfruit

Ingredients

Fermented Breadfruit Flour:

· 300 g ripe Breadfruit, peeled, chopped, and washed

· 3 g Tapai Yeast

25 g Granulated Sugar

Fermented Breadfruit Tortilla

- · 100 g Tapioca Starch
- 80 g Margarine
- 4 g Salt
- · 300 g Water

Method

Fermented Breadfruit Flour:

- 1. Peel and slice the breadfruit into thin slices.
- 2. Sprinkle sugar and tapai yeast and incorporate well.
- 3. Prepare a clean container with no lid to store the breadfruit inside to ferment.
- 4. Cover with a clean cloth, let it ferment unrefrigerated for 48 hours.
- After it's fermented, layer on a baking tray and dry at 60°C for 6 hours in the oven or dehydrator.
- Blend the dried up breadfruit sheet until it resembles flour. Proceed to sift it to get rid of big clumps.

Recipe Appendix 3

TRIAL PROGRESS (50-100 WORDS)

The breadfruit was left alone for a few days to let it ripen before processing; skinning and cutting it was difficult at first. However, steaming was a reasonably easy process up until the point of fermentation. The breadfruit became softer and more mushy during fermentation, which made mashing it into a thin layer faster. The drying process took some time, but in the process, the aroma profile was unique and emits a sweet scent. Because the spice blender that was available is small, blending the breadfruit sheets was a bit time-consuming and tedious. The flour was then sifted.

All of the ingredients are combined to make the tortilla dough, which is then kneaded and allowed to rest. The dough was then divided into portions and flattened, then cooked on a hot pan until brown spots appeared. Everything will be ready for serving after it is cooked. Overall, the tortilla turned out great, although the color is darker than expected.



Recipe Appendix 4

Fermented Breadfruit Tortilla:

- 1. Add the flour to a large mixing bowl followed by tapioca starch and a large pinch of salt.
- 2. Mix well then add margarine.
- 3. Add water and use hands to start kneading until the dough comes together into a ball.
- 4. Let it rest for 15 minutes.
- 5. Heat up a cast iron skillet or pan on medium heat.
- Portion the dough into even balls and press with a tortilla press to create an uniform shape.
- Cook on hot skillet or pan, flipping after 1 minute or until bubbles and golden brown spots can be seen. Cook for another 1 minute on the other side.
- 8. Remove and serve as a side dish.

Product Description

This fruit-based tortilla is soft and supple, tastes neutral, and is free of preservatives, artificial flavoring, and color. It is also gluten-free. Breadfruit tortilla is an appealing substitute for regular wheat tortilla, especially for people who are looking for gluten-free solutions or want to improve the nutritional value of their diet. Packed with fiber, vitamins, minerals, and antioxidants, breadfruit tortilla is a nutrient-dense alternative to wheat tortilla's refined texture. Because it is free of gluten, people with celiac disease or gluten sensitivity can eat it, and its lower glycemic index might help with blood sugar regulation. In addition, growing breadfruit trees uses less resources than growing wheat, making it a sustainable and eco-friendly practice.

Because of fermentation, the breadfruit flour itself is easier to digest, which may help those who have sensitive stomachs feel less bloated. Furthermore, by increasing the nutrients' availability, this technique guarantees that the tortillas are more nutrient-dense. The addition of probiotic cultures can result in the inclusion of good bacteria in the tortillas, which promote intestinal health. Additionally, the tortillas' taste profile is improved by the distinct smells and scents that fermentation adds. All things considered, the product obtained from fermenting breadfruit flour for tortillas is more nutrient-dense, tastes better, and might last longer.

Recipe Appendix 5



Student Name : Fellicia Can NIM : 2274130010059

Advisor	I-Examiner	2= Examiner
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Name: Gilbert Hadiwirawan	Name: Jessica Hartan	Name: Elma Sulistiya
Date: 13 / 08 / 24	Date: 15 / 08 / 24	Date: 13/08/24

Recipe Appendix 6



Sliced Breadfruit Appendix 7



Fermented Breadfruit Appendix 8



Appendix 9



Dried Breadfruit Appendix 10



Dough Appendix 11



Portioned Dough Appendix 12



Flattened Dough Appendix 13



Finished Product Appendix 14