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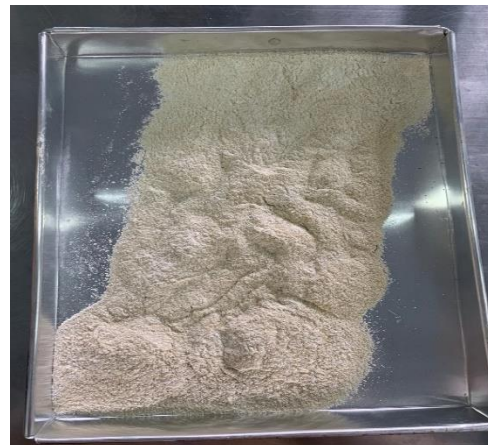
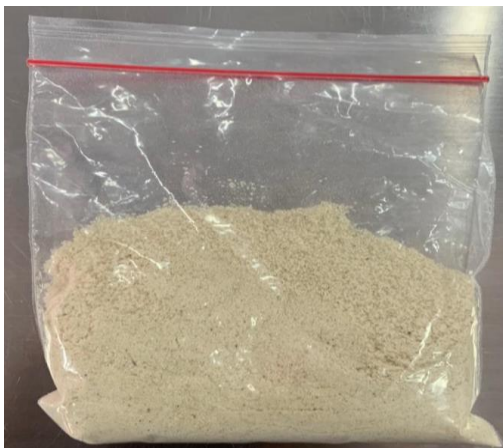
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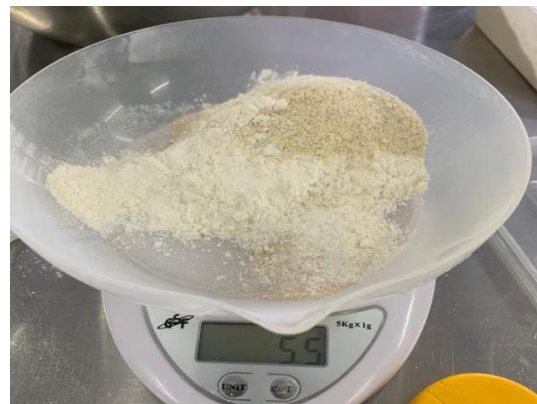
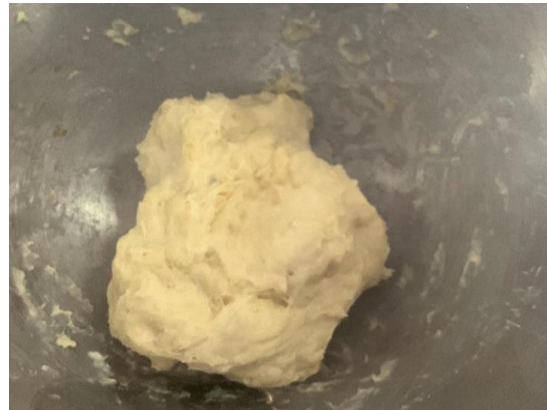
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**LAMPIRAN****Lampiran 1. Proses Pembuatan Tepung Tulang Ikan Sapu-sapu**

**Lampiran 2. Proses Pembuatan Crackers**

Lampiran 3. Proses Uji Hedonik



## Lampiran 4. Hasil Skala Likert

Hasil Skala Likert					
Sampel	Penampilan	Tekstur	Warna	Bau	Rasa
F0-1	73,40%	70,40%	60,80%	81,00%	81,20%
F0-2	73,40%	70,40%	60,80%	81,00%	81,20%
F0-3	73,40%	70,40%	60,80%	81,00%	81,20%
F0-4	73,40%	70,40%	60,80%	81,00%	81,20%
F1-1	76,40%	78,80%	72,20%	76,00%	77,00%
F1-2	76,40%	78,80%	72,20%	76,00%	77,00%
F1-3	76,40%	78,80%	72,20%	76,00%	77,00%
F1-4	76,40%	78,80%	72,20%	76,00%	77,00%
F2-1	80,40%	87,40%	84,40%	76,40%	92,60%
F2-2	80,40%	87,40%	84,40%	76,40%	92,60%
F2-3	80,40%	87,40%	84,40%	76,40%	92,60%
F2-4	80,40%	87,40%	84,40%	76,40%	92,60%
F3-1	76,20%	87,20%	84,40%	60,60%	52,20%
F3-2	76,20%	87,20%	84,40%	60,60%	52,20%
F3-3	76,20%	87,20%	84,40%	60,60%	52,20%
F3-4	76,20%	87,20%	84,40%	60,60%	52,20%

Hasil Uji Kesukaan					
Sampel	Penampilan	Tekstur	Warna	Bau	Rasa
F0	73,40%	70,40%	60,80%	81,00%	81,20%
F1	76,40%	78,80%	72,20%	76,00%	77,00%
F2	80,40%	87,40%	84,40%	76,40%	92,60%
F3	76,20%	87,20%	84,40%	60,60%	52,20%

**Lampiran 5. Proses Pengujian Proksimat dan Uji Mineral**

## Lampiran 6. Lembar Penilaian Uji Kesukaan/Hedonik

### LEMBAR PENILAIAN UJI KESUKAAN/HEDONIK (CRACKERS)

Nama :  
 Umur :  
 Jenis Kelamin : L/P (Lingkari salah satu)

**PETUNJUK :**

Mohon isi kolom kriteria kesukaan di bawah ini dengan menggunakan skala angka 1-5 dengan keterangan sebagai berikut,

- 1 = sangat tidak suka
- 2 = tidak suka
- 3 = netral
- 4 = suka
- 5 = sangat suka

KRITERIA	JENIS CRACKERS											
	P0			P1			P2			P3		
	A	B	C	A	B	C	A	B	C	A	B	C
TAMPILAN												
WARNA												
BAU												
TEKSTUR												
RASA												

Lampiran 7. Hasil SPSS Uji *Kruskall Wallis*

## NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Sampel	400	11.49	2.137	6	15
Penampilan	400	2.50	1.119	1	4

## Kruskal-Wallis Test

**Ranks**

	Penampilan	N	Mean Rank
	F0	100	177.11
	F1	100	200.07
Sampel	F2	100	228.13
	F3	100	196.70
	Total	400	

**Test Statistics<sup>a,b</sup>**

	Sampel
Chi-Square	11.847
df	3
Asymp. Sig.	.008

a. Kruskal Wallis Test

b. Gouping Variable:

Penampilan

## NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Sampel	400	12.14	2.712	3	15
Tekstur	400	2.50	1.119	1	4

**Kruskal-Wallis Test****Ranks**

	Tekstur	N	Mean Rank
Sampel	F0	100	135.53
	F1	100	186.14
	F2	100	241.43
	F3	100	238.91
	Total	400	

**Test Statistics<sup>a,b</sup>**

	Sampel
Chi-Square	64.164
Df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable:

Tekstur

**NPar Tests**



**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Sampel	400	11.32	2.637	6	15
Warna	400	2.50	1.119	1	4

**Kruskal-Wallis Test****Ranks**

	Warna	N	Mean Rank
	P0	100	111.40
	P1	100	177.98
Sampel	P2	100	256.31
	P3	100	256.31
	Total	400	

**Test Statistics<sup>a,b</sup>**

	Sampel
Chi-Square	122.040
Df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable:

Warna

## NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Sampel	400	11.03	2.458	6	15
Bau	400	2.50	1.119	1	4

## Kruskal-Wallis Test

**Ranks**

	Aroma	N	Mean Rank
Sampel	P0	100	248.95
	P1	100	217.17
	P2	100	217.68
	P3	100	118.20
	Total	400	

**Test Statistics<sup>a,b</sup>**

	Sampel
Chi-Square	82.579
df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Bau

## NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Sampel	400	11.36	3.097	6	15
Rasa	400	2.50	1.119	1	4

## Kruskal-Wallis Test

**Ranks**

	Rasa	N	Mean Rank
Sampel	P0	100	225.52
	P1	100	200.42
	P2	100	296.23
	P3	100	79.84
	Total	400	

**Test Statistics<sup>a,b</sup>**

	Sampel
Chi-Square	197.950
df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Rasa



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**BALAI BESAR LABORATORIUM KESEHATAN MAKASSAR**

Jl. Perintis Kemerdekaan KM.11 Tamalanrea Makassar 90245



**LAPORAN HASIL UJI**

*Report of Analysis*

No : 23029395 / LHU / BBLK-MKS / X / 2023

Nama Customer : SRI NURUL UTAMI  
 Customer Name :  
 Alamat : BTP Blok A/428  
 Address :  
 Jenis Sampel : Tepung Tulang Ikan Sapu-Sapu  
 Type of Sample (S) :  
 No. Sampel : 23029395  
 No. Sample :  
 Tanggal Penerimaan : 17 Oktober 2023  
 Received Date : October 17, 2023  
 Tanggal Pengujian : 17 Oktober 2023 s/d 26 Oktober 2023  
 Test Date : October 17, 2023 to October 26, 2023

**HASIL PEMERIKSAAN**

No No	Parameter Parameters	Satuan Units	Hasil Pemeriksaan Test Result	Spesifikasi Metode Method Specification
1	Lemak	%	1,46	Gravimetrik
2	Protein	%	26,38	Kjehdal
3	Karbohidrat	%	8,70	Titrimetrik
4	Kadar Air	%	5,44	Gravimetrik
5	Kadar Abu	%	5,29	Gravimetrik

Catatan : 1 Hasil uji ini berlaku untuk sampel yang diuji  
 Note : The analytical result are only valid for the tested sample

2 Laporan hasil uji ini terdiri dari 1 halaman  
 The report of analysis consists of 1 page

3 Laporan hasil uji ini tidak boleh digandakan kecuali secara lengkap dan seizin tertulis Laboratorium Penguji  
 Balai Besar Laboratorium Kesehatan Makassar  
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 of the testing Laboratory Balai Besar Laboratorium Kesehatan Makassar.

Makassar, 26 Oktober 2023  
 Koordinator Pelayanan,  
 dr. IRMAWATI NAERUDDIN  
 NIP : 19660226201012001



**KEMENTERIAN KESEHATAN RI**  
**DIREKTORAT JENDERAL PELAYANAN KESEHATAN**  
**BALAI BESAR LABORATORIUM KESEHATAN MAKASSAR**



Jl. Perintis Kemerdekaan KM.11 Tamalanrea Makassar 90245

**LAPORAN HASIL UJI**

*Report of Analysis*

No : 23022315 / LHU / BBLK-MKS / VIII / 2023

Nama Customer : SRI NURUL UTAMI  
 Customer Name :  
 Alamat : BTP Blok A / 428  
 Address :  
 Jenis Sampel : Tepung Tulang Ikan Sapu-Sapu  
 Type of Sample (S) :  
 No. Sampel : 23022315  
 No. Sample :  
 Tanggal Penerimaan : 28 Agustus 2023  
 Received Date : August 28, 2023  
 Tanggal Pengujian : 28 Agustus 2023 s/d 01 September 2023  
 Test Date : August 28, 2023 to September 01, 2023

**HASIL PEMERIKSAAN**

No	No. Lab	Kode Sampel	Parameter	Satuan	Hasil Uji	Spesifikasi Metode
1	23022315	1	Kalsium (Ca)	µg/g	282132,51	AAS
			Fosfor	%	20,67	Spektrofotometrik

Makassar, 4 September 2023  
 Sub Koordinator Labkesmas,  
  
**MAKMUR ALIM, S.Si**  
 NIP : 197002131991031004

Telp. 0411 586457, 586458, 586270, Fax. 0411 586270  
 Surat Elektronik : bblk.mksr@gmail.com, bblk\_makassar@yahoo.com





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**BALAI BESAR LABORATORIUM KESEHATAN MAKASSAR**



Jl. Perintis Kemerdekaan KM.11 Tamalanrea Makassar 90245

**LAPORAN HASIL UJI**

*Report of Analysis*

No : 23029398 / LHU / BBLK-MKS / X / 2023

Nama Customer : SRI NURUL UTAMI  
 Customer Name :  
 Alamat : BTP Blok A/428  
 Address :  
 Jenis Sampel : Crackers  
 Type of Sample (S) :  
 No. Sampel : 23029398  
 No. Sample :  
 Tanggal Penerimaan : 17 Oktober 2023  
 Received Date : October 17, 2023  
 Tanggal Pengujian : 17 Oktober 2023 s/d 26 Oktober 2023  
 Test Date : October 17, 2023 to October 26, 2023

**HASIL PEMERIKSAAN**

No No	Parameter Parameters	Satuan Units	Hasil Pemeriksaan Test Result	Spesifikasi Metode Method Specification
1	Lemak	%	13,55	Gravimetrik
2	Protein	%	11,21	Kjehdal
3	Karbohidrat	%	65,96	Titrimetrik
4	Kadar Air	%	2,46	Gravimetrik
5	Kadar Abu	%	3,25	Gravimetrik

Catatan : 1 Hasil uji ini berlaku untuk sampel yang diuji

Note : The analytical result are only valid for the tested sample

2 Laporan hasil uji ini terdiri dari 1 halaman

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DP/5.10.3/KL/BBLK - Mks; Rev 1; 15 Oktober 2012





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**BALAI BESAR LABORATORIUM KESEHATAN MAKASSAR**



Jl. Perintis Kemerdekaan KM.11 Tamalanrea Makassar 90245

**LAPORAN HASIL UJI**

*Report of Analysis*

No : 23031362 / LHU / BBLK-MKS / XI / 2023

Nama Customer : SRI NURUL UTAMI  
 Customer Name :  
 Alamat : BTP Blok A (428)  
 Address :  
 Jenis Sampel : Crackers / Kue  
 Type of Sample (S) :  
 No. Sampel : 23031362  
 No. Sample :  
 Tanggal Penerimaan : 07 November 2023  
 Received Date : November 07, 2023  
 Tanggal Pengujian : 07 November 2023 s/d 14 November 2023  
 Test Date : November 07, 2023 to November 14, 2023

**HASIL PEMERIKSAAN**

No	No. Lab	Kode Sampel	Parameter	Satuan	Hasil Uji	Spesifikasi Metode
1	23031362	F0	Kalsium (Ca)	µg/g	1024,99	AAS
			Fosfor (P)	µg/g	7079,55	Spektrofotometrik

**Catatan** : 1 Hasil uji ini berlaku untuk sampel yang diuji

**Note** : The analytical result are only valid for the tested sample

2 Laporan hasil uji ini terdiri dari 1 halaman

The report of analysis consists of 1 page

3 Laporan hasil uji ini tidak boleh digandakan kecuali secara lengkap dan seizin tertulis Laboratorium Pengujian Balai Besar Laboratorium Kesehatan Makassar

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Makassar, 28 November 2023

Koordinator Pelayanan,

dr. IRMAWATI HAERUDDIN  
 NIP : 19630228201012001





**KEMENTERIAN KESEHATAN RI**  
**DIREKTORAT JENDERAL PELAYANAN KESEHATAN**  
**BALAI BESAR LABORATORIUM KESEHATAN MAKASSAR**



Jl. Perintis Kemerdekaan KM.11 Tamalanrea Makassar 90245

**LAPORAN HASIL UJI**

*Report of Analysis*

No : 23031363 / LHU / BBLK-MKS / XI / 2023

Nama Customer : **SRI NURUL UTAMI**  
 Customer Name :  
 Alamat : BTP Blok A (428)  
 Address :  
 Jenis Sampel : Crackers / Kue  
 Type of Sample (S) :  
 No. Sampel : 23031363  
 No. Sample :  
 Tanggal Penerimaan : 07 November 2023  
 Received Date : November 07, 2023  
 Tanggal Pengujian : 07 November 2023 s/d 14 November 2023  
 Test Date : November 07, 2023 to November 14, 2023

**HASIL PEMERIKSAAN**

No	No. Lab	Kode Sampel	Parameter	Satuan	Hasil Uji	Spesifikasi Metode
1	23031363	F2	Kadar Air	%	2,14	Gravimetrik
			Kadar Abu	%	11,65	Gravimetrik
			Karbohidrat by differensial	%	52,65	Titrimetrik
			Serat	%	6,50	Gravimetrik
			Lemak	%	15,63	Gravimetrik
			Protein	%	11,44	Kjehdal
			Fosfor Sebagai P	µg/g	43707,98	Spektrofotometrik
Kalsium (Ca)	µg/g	26444,79	AAS			

Catatan : 1 Hasil uji ini berlaku untuk sampel yang diuji

Note : The analytical result are only valid for the tested sample

2 Laporan hasil uji ini terdiri dari 1 halaman

The report of analysis consists of 1 page

3 Laporan hasil uji ini tidak boleh digandakan kecuali secara lengkap dan seizin tertulis Laboratorium Penguji

Balai Besar Laboratorium Kesehatan Makassar

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Makassar, 28 Nopember 2023  
 Koordinator Pelayanan,

dr. IRMAWATI HAERUDDIN  
 NIP. 19830228201012001



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